

ASSESSING THE IMPACT OF DOMESTIC AND EXTERNAL DEBT ON THE GAMBIA'S ECONOMIC GROWTH: AN ARDL ANALYSIS

A Thesis

**Submitted to the Master's Study Program of Economics at the Faculty
of Economics and Business in partial fulfillment of the requirements
for the degree of**

Master of Arts (M.A.)



By:

Abdoulie Ceesay

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UNIVERSITAS ISLAM INTERNASIONAL INDONESIA

DEPOK

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ABSTRACT

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This study investigates the short- and long-run effects of domestic and external public debt on economic growth in The Gambia, a low-income economy characterized by persistent fiscal constraints and external vulnerabilities. Using annual data from 1976 to 2023, the analysis employs the Autoregressive Distributed Lag (ARDL) bounds testing approach to examine the dynamic relationship between public debt components and GDP growth, while incorporating key macroeconomic variables such as inflation, interest rates, and foreign direct investment (FDI). The results indicate that both domestic and external debt negatively impact economic growth in the short run, with external debt exerting a stronger adverse effect (-0.54%) compared to domestic debt (-0.30%), largely due to the crowding-out of private investment. In the long run, a stable relationship exists, yet external debt continues to suppress growth, driven by exchange rate volatility and substantial debt servicing obligations that consume over 40% of government revenue. The findings challenge classical economic assumptions such as Ricardian Equivalence, revealing that fiscal deficits may stimulate short-term demand in contexts marked by low household savings and weak financial systems. In response, the study proposes a tailored Debt Sustainability Framework (DSF) for The Gambia that emphasizes strengthened domestic revenue mobilization, enhanced public financial management, the promotion of FDI, and a strategic shift toward concessional borrowing. By offering empirical insights and policy-oriented solutions, this research adds value to the limited literature on debt-growth dynamics in aid-dependent economies and provides actionable strategies for achieving sustainable economic development.

Keywords: *Public Debt, Economic Growth, Debt Sustainability, ARDL Model, Gambia, Crowding-Out Effect.*

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ABBREVIATIONS

ARDL	: <i>Autoregressive Distributed Lag</i>
ECM	: <i>Error Correction Model</i>
FDI	: <i>Foreign Direct Investment</i>
GDP	: <i>Gross Domestic Product</i>
GNI	: <i>Gross National Income</i>
IMF	: <i>International Monetary Fund</i>
LIC	: <i>Low-Income Country</i>
PPP	: <i>Public-Private Partnership</i>
SSA	: <i>Sub-Saharan Africa</i>
VAR	: <i>Vector Auto regression</i>
VECM	: <i>Vector Error Correction Model</i>
DSF	: <i>Debt Sustainability Framework</i>
HIPC	: <i>Heavily Indebted Poor Countries</i>
CBG	: <i>Central Bank of The Gambia</i>
CPI	: <i>Corruption Perception Index</i>
PPP	: <i>Public-Private Partnerships</i>
DSA	: <i>Debt Sustainability Analysis</i>
SME	: <i>Small and Medium Enterprises</i>
AIC	: <i>Akaike Information Criterion</i>
SBC	: <i>Schwarz Bayesian Criterion</i>
ADF	: <i>Augmented Dickey-Fuller (test)</i>
KPSS	: <i>Kwiatkowski-Phillips-Schmidt-Shin (test)</i>
CUSUM	: <i>Cumulative Sum (test)</i>
CUSUMQ	: <i>Cumulative Sum of Squares (test)</i>
IDB	: <i>Islamic Development Bank</i>
IDA	: <i>International Development Association</i>
ECOWAS	: <i>Economic Community of West African States</i>
SME	: <i>Small and Medium Enterprises</i>

CHAPTER I

INTRODUCTION

1.1 Background to the Study

The Gambia has experienced multiple stages of economic development for more than 40 years since gaining independence in 1965, with agriculture, tourism, and international trade being the most notable. The foundation of the agricultural economy and the single most significant source of foreign exchange earnings has been the groundnut industry. However, this industry is characterized by volatility because it is extremely susceptible to shifts in global market prices and climatic conditions (Ayeni, 2020). With its reputation as "The Smiling Coat of Africa," tourism is another significant source of income from foreign inflows, creates a significant number of jobs, and significantly boosts the Gambia's GDP. Because of this, government spending priorities have mostly mirrored those of recurrent expenditure, which has left little money for developmental expenditures Bikker & Gerritsen, (2017). Concerns about underemployment rates are also still present; they have somewhat decreased but are still at or near 8% and are still very high for young people. The high unemployment rate is a result of low industrialization, primary product exports, and a lack of intentional employment-generation policies. In the pre- and post-decennial years, for instance, The Gambia's economic growth was marked by political-security instability, fiscal incompetence, and external economic volatility (Azolibe, 2020).

The regular current account deficits have been a common characteristic of the Gambia's fiscal budget due to enhanced public spending and minimized domestic resource mobilization. All these deficits have been funded through domestic borrowing, external loans, and, to some extent, grants have been awarded. Financial support sourced from outside the continent, notably from institutions like the IMF and World Bank, has been significant in filling existing financing deficits, albeit usually carried along with stringent conditions (Baharumshah et al., 2017). A consequence of the upsurge in deficit has been fiscal unsustainability leading to a public debt of over 70% of the country's GDP in the most recent years as estimated by the World Bank, 2022. Meeting this debt has resulted in huge shares of government receipts on repaying the debt, hence taking a big chunk from our needed investment in areas such as health, education, and infrastructure, among others (Ayeni, 2020). The Gambian government has been forced to use both internal and external debt instruments as a result of the deficits. Treasury bills and bonds are frequently used at home through an issuance process to obtain funds from the market.

Short-term liquidity is provided by these instruments, but they also raise interest rates, which discourage private sector investment (Pinardon-Touati, 2023).

Concessional loans from international financial institutions for long-term development projects have been the main external funding source. Furthermore, using external debts increases the risk of exchange rate fluctuations and fluctuations in global interest rates. The external value of Gambian dalasi fluctuates, which has increased the cost of servicing external debt and put significant strain on the fiscal budget (Ayeni, 2020; Jeng, 2018). Data in the recent period reveal that The Gambia debt problem is worse off than it was previously thought. As of 2023, for instance, the total public debt was at \$1.7 billion, out of which \$1.3 billion, or 77%, was external. The ratio of credit to GDP has exceeded these values, and one can speak about its unsustainability. Borrowing has also become a permanent feature as fiscal deficits show that domestic borrowing has risen by 15 percent annually between 2018 and 2023 (Bikker & Gerritsen, 2017). Statistics show that countries face problems with the regulation of public debt and, at the same time, support economic growth. Currently, inflation has continued to record high levels, touching an average of 7% per annum through increased import costs and fiscal developments. Debt continued to exert significant interest costs; thus, from the government revenues obtained in 2022, the interest payment on the debt was 40% (Ayeni, 2020; Malová et al., 2022).

1.2 Statement of the Problem

There is something about fiscal policy as it evolved over the years and more specifically the failure to pursue and complete fiscal policy reforms which led to the maturation both of external and domestic debts to the TC. Currently, the Gambia is in a financially problematic state due to fiscal policy reforms which have led to building up of both external and domestic debts up to the end of the financial year. The increase in the Gambia's debt poses a question to the viability of this borrowing even though borrowing is rampant in the global world to finance development and to fill gaps in budgetary shortfalls. A frequent problem is that large public debt limits development if the funds raised are utilized injudiciously or if cost of debt servicing is higher than the income available. This is so especially because of high debt levels, low domestic revenue collection and high cost of debt servicing in The Gambia (Nguyen & Luong, 2021).

There are challenges that The Gambia is facing which include; The following challenges include but not limited to the following the rising trend in domestic debt however is one of The Gambia challenges. As a result, the government turned to domestic

borrowing to accommodate its fiscal requirements, and indeed domestic borrowing rates have begun to float. As a result, private sector investment has been displaced by an extensive borrowing process, which has increased costs and even restricted access to borrowed capital (Ndikumana et al., 2020). The economy's overall capacity, however, declines, as does the potential for sustainable growth in production. The government's finances are being further taxed by the high costs of domestic debt servicing, which leaves little money for infrastructure, health care, and education all crucial areas of the development agenda.

The Gambia's external debt has been rising in addition to its domestic debt issue. The governments of other nations, international organizations, or private foreign lenders may lend this to you. It carries risks, such as exchange rate risks and other external economic disruptions, even though it can be a source of funds at more affordable rates than the domestic market, with lower costs and longer maturity demands. The devaluation of the dalasi in relation to other foreign currencies, like the US dollar, has increased the cost of repaying borrowed funds by reducing external debt for The Gambia. Since the government needs to have more foreign currency reserves in order to meet the current debt repayment schedules, this placed additional financial strain on it. Furthermore, limitations imposed by external loans, particularly those accredited by international credit organizations, necessitate spending reductions, which may also have a negative impact on economic growth and lower public investment spending (Yusuf & Mohd, 2021).

Growing interest rates on both domestic and foreign debt have exacerbated this, making borrowing more expensive. Since borrowing becomes more expensive as interest rates rise, the government will likely have to spend more to pay off the remaining debt. Particularly in The Gambia, where debt servicing has taken up a significant portion of the budget, this has been realized. Government spending on debt repayment leaves little money for development projects and essential public services, which are essential for economic growth. The Japanese debt situation thus reflects a cycle whereby new borrowings are utilized to pay off previous debts, increasing the amount of debt and the associated servicing costs (Kose et al., 2020).

A closely related issue is inflation, which raises living expenses and slows down the real rate of economic growth. Another major fiscal issue facing The Gambia is the continuation of high inflationary trends, which are impacted by global food and energy prices. Inflation makes borrowing expensive for the government because of high fees charged by lenders due to the depreciated value of money (Olusola et al., 2022).

However, it also reduces consumers' purchasing power, which lowers domestic market consumption and investment, which impedes economic growth. The work also addresses the crucial question of whether FDI can lessen these difficulties. As a funding alternative in developed nations, foreign direct investment can assist in preventing an excessive dependence on credit. On the other hand, public debt and macroeconomic volatility hurt a nation, which is why foreign investors avoid it by labeling it risky or fiscally unwise. In order to address its growing debt and push for much-needed economic restructuring, The Gambia has recently been unable to secure the sufficient FDI inflows. As a result, borrowing becomes the primary source of funding for development and, consequently, the increase in debt. The Gambia's comparatively fixed economy is at risk in the future due to these external and domestic debts, high interest rates at home, and relatively high inflation rates. Therefore, the main challenge facing political leaders worldwide is to borrow at a level that is acceptable while accelerating economic growth in order to manage debt in a sustainable and effective manner.

This research breaks new ground by offering a context-specific analysis of public debt dynamics in The Gambia, a small, low-income economy often overlooked in macroeconomic literature, yet uniquely vulnerable due to its reliance on volatile sectors (tourism, groundnut exports), susceptibility to external shocks, and institutional weaknesses such as fiscal mismanagement and underdeveloped financial markets. By disentangling the distinct impacts of domestic and external debt the latter constituting 77% of total debt and introducing exchange rate risks, while the former crowds out private sector credit the study identifies debt thresholds and proposes an enhanced Debt Sustainability Framework (DSF) tailored to address The Gambia's dependence on foreign aid, shallow capital markets, and exposure to global volatility. It further innovates by quantifying how rising debt deters foreign direct investment (FDI), a critical gap in low-income country (LIC) research, and challenges conventional theories like Ricardian Equivalence, demonstrating that fiscal deficits stimulate short-term demand despite low household savings. The methodology required requires an Autoregressive Distributed Lag (ARDL) model to test the issue in data measured at fiscal year -2023, that is, during the transformative decade as the bulk of business activity was associated with debt bursts, political transformation, and a series of international crises. The results rebalance the theoretical hypotheses about LICs, and end up with ready-to-use policy instruments, which systemize the optimal debt compositions that would reduce the risks, proper institutional reform to enhance revenue collection, and FDI-led plans to stabilize between growth and fiscal stability. By bridging theoretical, empirical, and policy gaps, this work

equips The Gambia and analogous economies with frameworks to navigate the precarious balance between debt sustainability and development.

1.3 The Significance of the Study

This study is important for a number of reasons, including the fact that it tackles one of The Gambia's most urgent economic issues: public debt and the impact that rising debt levels have on economic expansion. The research will help policymakers understand how public debt can be reduced or shared more effectively to promote economic growth by analyzing interest rates, inflation, economic performance, and domestic and external debts. The study will first theoretically add to the body of knowledge on public debt and economic growth with a focus on developing nations. There is a dearth of research on the effects of public debt on small, open developing economies like The Gambia, despite the fact that numerous empirical studies have been conducted to examine the effects of public debt in developed economies. By examining the particular characteristics that make it challenging for The Gambia to manage its debt and achieve budget sustainability, this study will aid in closing this gap.

Second, policymakers in The Gambia will benefit from the information gleaned from the current study. Hence, the prescriptions of this study on how to enhance particular debt management policies will be based on a comprehension of the factors that describe the association between debt and growth. The study might, for instance, point to measures to reduce the incidence of domestic borrowings that has crowded out private investment due to costly funds available. At the same time, it may help explain why more FDI should be encouraged instead of relying on expensive overseas borrowing for the development of the country (Yu & Li, 2020).

Third, this research will enable the researcher to obtain data which will then help in development of future fiscal policies in The Gambia. As such, this study will enable policymakers to reconsider the sustainability of the debt plan over the medium to the long-run by applying the fresh realization on the characteristics, consequences, and tendencies of the rising debt profile on other macroeconomic variables including GDP growth rate, inflation, and interest rate. It will help the government in balancing the borrowing for the future fiscals soundly without compromising the growth and development of the public debt. This research is significant as it provides paradigms of the complex relationship between public debt and economic growth in The Gambia. The findings will inform policy makers who wish to contain the growing stock of debt and achieve high growth rate in the country. It will be both theoretical and practical because

the literature on this subject will span the theoretical and practical applications of the principles governing this topic.

1.4 Research Questions

To better understand the relationship between public debt and economic development in The Gambia, this study seeks to address the following key research questions:

1. What impact does public debt have on the development and expansion of the Gambia's economy, both in the short-run and long-run?
2. What effects on significant macroeconomic indicators, such as inflation and interest rates, can be observed as a result of the rise in government debt in both the short-run and long-run?
3. What has been the actual trend of The Gambia's domestic and foreign debt over the past ten years, and how do these trends relate to short-run and long-run economic performance

1.5 Research Objectives

In line with the research questions, this study is guided by the following specific objectives:

1. To analyze, the short-run effects of domestic and external debt on economic growth in The Gambia.
2. To assess, the long run effect of domestic and external debt on the Gambia's economic growth.
3. To provide evidence-based policy recommendations for sustainable debt management and economic growth in the Gambia based on the empirical results.

1.6 Scope of the Study

This study examines the relationship between the Gambia's economic growth and its domestic and foreign public debt over a fifty-year span, from 1975 to 2023. Only the public sector and its debt mix, which includes both domestic and foreign loans, are covered in this work, which is restricted to the national level. Therefore, the goal of this study is to determine the macro technique of The Gambia's growing public debt in relation to specific macroeconomic factors, such as interest rates, GDP growth rate, and inflation rate (Abindaw et al., 2023). Due to their significance in influencing The Gambia's fiscal policies and macroeconomic patterns, this paper concentrates on both external and domestic debt. Internal debt, which is a subset of public debt, is credit that

the government has obtained from local money markets, such as banks, private citizens, businesses, or other investors in The Gambia. Since this debt is customarily made in Gambian dalasi, it is financially protected from exchange rate risks. High domestic debt, however, lowers investment because it raises interest rates and privatizes the private sector's borrowing needs. Aside from capital markets, external liabilities include borrowings from other foreign governments and international institutions like the World Bank, International Monetary Fund, and IMF. It is expensive because many external debts are borrowed in foreign currencies, such as the US dollar or the euro, and repayment of the borrowed sums in Gambian dalasi may be hampered if the country's creative exchange rates decline.

This financial analysis only considered public debt, while private and corporate debts are excluded from the list. It did not extend to other areas of economic activities such as credit to households or credit to private businesses, which may affect an economy's performance. Additionally, this work tries to analyze The Gambia under other Sub-Saharan African countries experiencing similar debt issues, but it focuses on The Gambia only. Thus, since the rates of inflation, exchange, and domestic and external debts began to decrease during this period, the 1975–2023 period was chosen. This allows the study to establish the relationship between public debt and economic growth during a period marked by statistical concerns, as well as active fiscal issues and policies.

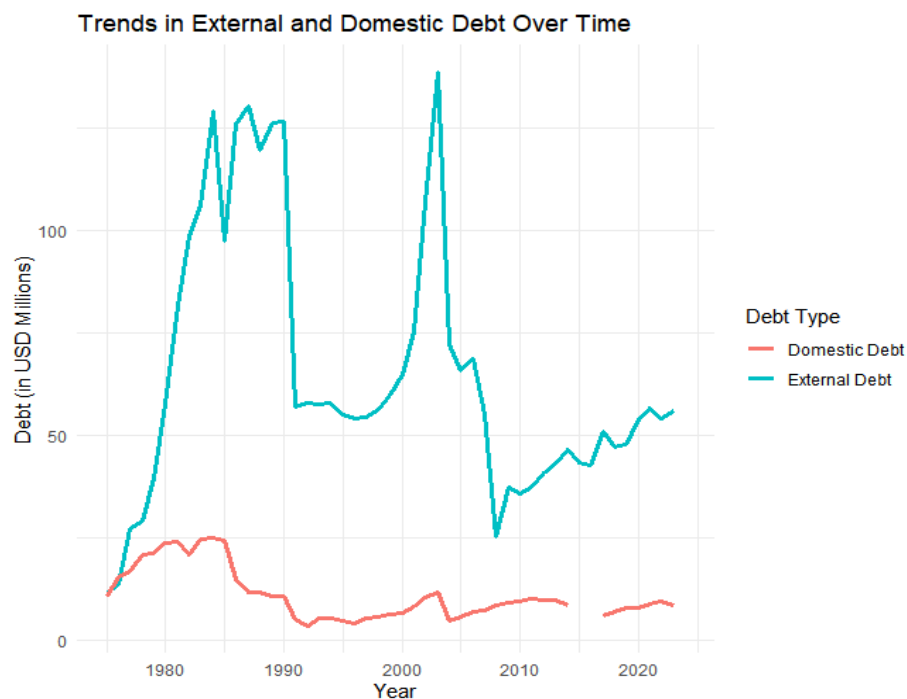


Figure 1.1 Trend in External and Domestic Debt Over Time

Source (Author creation)

The graph presents an analysis of The Gambia's debt trajectory over time, outlining the domestic and external debt components to assess their implications for economic growth. The x-axis denotes the temporal dimension, measured in years, while the y-axis quantifies the debt level, as a percentage of GDP, which is a critical indicator of debt sustainability. The visual representation employs distinct lines to differentiate domestic debt, sourced from internal avenues such as local financial institutions and government securities, from external debt, which encompasses loans acquired from international entities, including multilateral organizations and bilateral partners. A noticeable upward trend in total debt suggests The Gambia's growing dependence on borrowing to address fiscal shortfalls, fund developmental projects, or mitigate economic vulnerabilities. Fluctuations in this trend, marked by peaks or troughs, may align with significant macroeconomic events, such as economic crises, shifts in fiscal or monetary policy, or external shocks like global financial downturns or commodity price volatility. The composition of debt is particularly consequential; an escalating external debt burden may signal heightened reliance on foreign financing, exposing the economy to exchange rate risks, conditionality's imposed by creditors, and potential solvency challenges. Conversely, an overreliance on domestic debt could precipitate crowding-out effects, wherein heightened public borrowing drives up interest rates, constraining private sector access to credit and dampening investment-led growth. This analysis underscores the necessity of a balanced and strategic approach to debt management, ensuring that borrowing aligns with productive capacity while safeguarding macroeconomic stability. The graph thus serves as a foundational tool for evaluating the interplay between debt dynamics and economic performance, informing the broader discourse on fiscal sustainability within The Gambia's developmental context.

1.7 Scheme of Chapters

This is how the study is structured to allow for a rational discussion of concepts, analysis, and findings:

The first chapter of the report provides background information and a conceptual overview of The Gambia's governmental debt. It articulates the importance of understanding public debt in the context of emerging nations, specifically The Gambia. The chapter also discusses how to finance both foreign and domestic loans, which is where the nation has faced difficulties managing its obligations. The research topic,

objectives, and questions that serve as the backdrop for the subsequent analysis are also disclosed.

The second chapter reviews the research on the relationship between economic development and public debt, considering that the public debt is fixed income. The literature on the established theory that is connected to the structure of public debt and its effects on economic growth are reviewed to build the theoretical foundation of the study. This chapter aims to contextualize the research by addressing public debt and growth. The third chapter presents methodology of the research. This paper uses quantitative research methodology to look at the impact of the public debt on economic growth in Gambia. This chapter describes tools and sources of the data used in the research, determines the key variables and describes the econometric methods (including ARDL and Jonhansen cointegration methods) used in testing the hypotheses. This chapter is very transparent about the way the research is performed and predetermines the analysis in the further chapters.

The fourth chapter shows an analysis of the collected data in the study. It discusses the key conclusions of the major conclusions of the paper regarding impacts of domestic and external debts on key macroeconomic factors including growth in GDP, inflation rates, and interests. In this chapter the author talks about the outcomes of the used econometric models and explains what these results say about the Gambian economy.

The last chapter is the conclusion of the study that provides the summary of the findings and implication to the policy. It presents an argument about the current public debts in The Gambia and presents suggestions on how such public debts can be better addressed to facilitate a sound development of the economy. This chapter is important because it helps to transform the research findings to policy recommendations to The Gambia.

CHAPTER II

LITERATURE REVIEW

2.1 Theoretical Framework

The following initial fundamental ideas of economics form the basis of the analysis of public debt and its relationship to economic growth. These theories provide insight into how different types of public debt, both internal and external, impact economic growth, fiscal balance, and citizen well-being (Onafowora & Owoye, 2017). This section of the paper lays out key theories that are pertinent to assessing how debt affects growth, particularly those that highlight the financial and developmental barriers faced by developing nations such as the Gambia.

2.1.1 Debt extension Hypothesis

According to the debt extension hypothesis, a country's debt beyond its capacity to pay it back eventually reduces investment and economic growth. According to this hypothesis, the economy is in a position where a sizable portion of future economic development may be used to pay down the debts, even in cases where economic growth is anticipated. According to Ayeni (2020), The Gambia's large public debt has caused private investment to be displaced, as government borrowing raises interest rates and limits the amount of credit accessible to private companies. According to the study, private sector credit in The Gambia has decreased by roughly 15% during times when government borrowing has increased. Due to the perceived risk of being permanently shut out of their assets while the government handles debt service, discouraged both domestic and foreign investors. After examining data from The Gambia's Ministry of Finance, the authors concluded that the hypothesis is accurate because governmental borrowing from 2015 to 2020 caused private investment to stagnate. Sustainable economic growth has come to an end because of this decrease, which has reduced the amount of room for lucrative experiments and encouraged governments to borrow money to pay their deficits and generate employment.

2.1.2 Ricardian Equivalence Theory

The Ricardian Equivalence theory suggests that government borrowing has no net effect on aggregate demand because individuals save more in anticipation of future tax increases (Murungi & Okiro, 2018). However, this theory fails to account for the economic realities of low-income countries like The Gambia, where a significant portion of the population lacks the financial capacity to adjust their savings behavior. According to a 2021 household survey by the Gambia Bureau of Statistics, over 60% of Gambians

live below the poverty line, meaning they cannot set aside funds for hypothetical future tax burdens. Instead of saving, these households prioritize immediate consumption, causing government spending to directly stimulate demand, contrary to the theory's predictions. The disconnect reveals how classical economic assumptions often do not translate to developing economies with widespread poverty.

In The Gambia's context, government expenditures serve as a vital economic stimulus precisely because low-income households spend rather than save their limited resources. When public funds are injected into the economy, whether through social programs, infrastructure projects, or direct transfers, they immediately boost demand for goods and services. This effect is particularly pronounced in economies where subsistence needs dominate household budgets, leaving little room for precautionary savings. While vertical integration and other structural reforms may offer short-term growth benefits, their long-term viability depends on careful fiscal management (Chugunov et al., 2021). Without proper oversight, such strategies risk exacerbating fiscal imbalances, as temporary demand boosts may mask underlying sustainability challenges.

The Gambia's experience underscores the limitations of applying Ricardian Equivalence to developing economies with high poverty rates and constrained financial systems. Unlike in wealthier nations, where households might adjust savings in response to fiscal policy, The Gambia's low-income majority operates in a hand-to-mouth economic reality. This divergence highlights the need for context-specific economic models that account for structural disparities. Policymakers must recognize that government spending in such environment's functions less as a neutral fiscal tool and more as a critical driver of short-term demand albeit one that requires disciplined long-term planning to avoid unsustainable debt accumulation. The interplay between borrowing, spending, and household behavior in The Gambia thus challenges universal economic theories while emphasizing the importance of tailored policy frameworks.

2.1.3 Keynesian Debt Theory

Government borrowing makes sense for recovering from an economic downturn or fall, according to Keynesian perspectives on the economic model (Martin & Philippon, 2017). Increased public investment can change overall demand and boost economic activity, according to some Keynesian policy initiatives. A thorough examination of the fiscal policies of the Gambia from 2010 to 2020 reveals that government borrowing facilitated the construction of several infrastructure projects, including schools, hospitals, and highways. Data from the World Bank (2022) shows that while public spending was high,

GDP increased from 2.5% to 5.1% for the same nation, indicating that government borrowing was more efficient. However, studies also show that inadequate management of borrowed resources leads to high borrowing costs that equal or even surpass project revenues, reducing the amount of money available for further capital growth (Okeke et al., 2022). Thus, the Keynesian approach to borrowing evaluates the ability to ensure that borrowed funds are exclusively used for initiatives that have the potential to yield the highest economic or social benefits. The theory of Ricardian Equivalence posits that individuals anticipate future tax increases resulting from government borrowing, which leads them to increase their savings in preparation for these anticipated financial obligations. Consequently, this theory suggests that government borrowing does not significantly influence overall demand in the economy (Murungi & Okiro, 2018).

However, applying this theory to The Gambia reveals significant challenges. This study demonstrates that, contrary to the tenets of Ricardian Equivalence, a substantial portion of the Gambian population lacks the financial resources necessary to save for potential future tax liabilities. Data from a comprehensive household survey conducted by the Gambia Bureau of Statistics in 2021 indicates that over 60% of individuals live below the national poverty line, defined as earning less than \$2 per day. This economic hardship severely limits their capacity to save.

In these economically disadvantaged communities, residents often struggle to meet their daily needs, such as food, housing, and healthcare, which leaves little to no disposable income for savings. Instead of setting aside funds for future expenses related to government debt, low-income households typically prioritize spending their limited income on essential requirements. This behavior contributes to a short-term increase in overall demand when government spending rises, as families are more likely to spend any additional resources they receive from government programs. This phenomenon illustrates that, in the context of The Gambia, government expenditures on infrastructure, health, and education often serve as a vital stimulus to the economy, providing immediate relief and contributing to short-term growth.

Furthermore, while the concept of vertical integration, where firms consolidate their operations across various stages of production to enhance efficiency and reduce costs, can offer a temporary boost to economic growth, it carries the risk of creating long-term fiscal imbalances if not managed effectively. For instance, without proper regulatory frameworks and strategic oversight, the advantages gained from vertical integration could lead to monopolistic practices, diminishing competition and stifling innovation. This

mismanagement may result in sustainability challenges for the country's economic policies, as it can create disparities in income distribution and impede broader economic development (Chugunov et al., 2021).

Overall, the economic realities in The Gambia starkly highlight the limitations of Ricardian Equivalence, revealing the complex interplay between government borrowing, public spending, and household financial behavior within a low-income context. Identifying these dynamics is essential for formulating effective economic policies that adequately support growth and address the needs of the vulnerable population. The theory of Ricardian Equivalence suggests that individuals expect future tax increases resulting from government borrowing, which leads them to save more in anticipation of these costs. Consequently, the theory implies that government borrowing does not influence overall demand in the economy (Murungi & Okiro, 2018). However, applying this theory to The Gambia uncovers significant challenges. This study shows that, contrary to Ricardian Equivalence, a large portion of the Gambian population does not have the financial resources necessary to save for future tax obligations. Data from a comprehensive household survey conducted by the Gambia Bureau of Statistics in 2021 indicates that over 60% of individuals live below the poverty line, which severely constrains their ability to save. In economically disadvantaged communities, residents often struggle to meet their daily needs, making it nearly impossible for them to set aside funds for future expenses related to government debt. Instead of saving, low-income households tend to spend their limited income on immediate necessities, resulting in a short-term increase in demand when government spending rises. This phenomenon illustrates that, in the context of The Gambia, government expenditures often provide crucial stimulus to the economy.

Moreover, while the concept of vertical integration where businesses consolidate their operations to enhance efficiency can temporarily boost economic growth, it risks creating long-term fiscal imbalances if not managed effectively. Without timely oversight and strategic control, the potential benefits of vertical integration may be compromised, leading to sustainability challenges for the country's economic policies (Chugunov et al., 2021). Overall, the economic realities in The Gambia highlight the limitations of Ricardian Equivalence and the complex interplay between government borrowing, spending, and household financial behavior in a low-income context.

2.1.4 Debt Laffer Curve

The Debt Laffer Curve¹ shows that there is an optimal level of debt beyond which any additional debt will be counterproductive and hence slows down the growth rate. This threshold is also evidenced by empirical evidence in The Gambia, where data from the IMF shows that beyond 60% of GDP, there has been a deceleration in growth rates. This is seen where the country's debt-to-GDP ratio for The Gambia crossed over 70% in 2018; the growth in GDP slipped from 4.8% to 3.2%. This supports Henri's claim that above a threshold level, the cost of servicing increases at a higher rate than the gains of growth. Policymakers in The Gambia must, therefore, closely monitor the debt indicators and correct fiscal policies to keep the debt at levels that it would be in a position to be sustainable and create growth instead of inhibiting it. Government borrowing is a rational strategy for recovering from an economic downturn, according to Keynesian economic theories (Martin & Philippon, 2017). Increased public investment can stimulate overall demand and enhance economic activity, as suggested by various Keynesian policy initiatives. A detailed examination of The Gambia's fiscal policies from 2010 to 2020 shows that government borrowing enabled the construction of vital infrastructure projects, such as schools, hospitals, and highways. Data from the World Bank (2022) indicates that despite high levels of public spending, GDP growth in The Gambia increased from 2.5% to 5.1%, suggesting that government borrowing was utilized efficiently. However, studies indicate that poor management of borrowed funds can lead to high borrowing costs, which may equal or exceed project revenues, ultimately reducing available capital for further growth (Okeke et al., 2022). Thus, the Keynesian approach to borrowing emphasizes the need for Chancellors to ensure that borrowed funds are used exclusively for initiatives that can produce the greatest economic or social benefits. On the other hand, the theory of Ricardian Equivalence posits that individuals anticipate future tax increases resulting from government borrowing, prompting them to save in preparation for these future liabilities. As a result, this theory implies that government borrowing does not significantly affect overall demand in the economy (Murungi & Okiro, 2018). However, when applying this theory to The Gambia, significant challenges arise. Evidence shows that, contrary to the principles of Ricardian Equivalence, a large portion of the Gambian population lacks the financial resources needed to save for potential future tax obligations. Data from a comprehensive household survey conducted by the Gambia Bureau of Statistics in 2021 reveals that over 60% of individuals live below the national poverty line, defined as earning less than \$2 per day. This economic hardship severely limits their ability to save. In these economically disadvantaged

communities, residents often struggle to meet their daily needs, such as food, housing, and healthcare, leaving little to no disposable income for savings. Rather than setting aside funds for future expenses related to government debt, low-income households typically prioritize spending their limited income on essential requirements. This behavior results in a short-term increase in overall demand when government spending rises, as families are more likely to spend any additional resources they receive from government programs. This phenomenon illustrates that, in the context of The Gambia, government expenditures on infrastructure, health, and education often act as a critical stimulus for the economy, providing immediate relief and contributing to short-term growth.

Moreover, while the concept of vertical integration where firms consolidate operations across various stages of production to enhance efficiency and reduce costs can offer a temporary boost to economic growth, it carries the risk of creating long-term fiscal imbalances if not managed effectively. Without proper regulatory frameworks and strategic oversight, the advantages gained from vertical integration could lead to monopolistic practices, reducing competition and stifling innovation. This mismanagement may result in sustainability challenges for the country's economic policies, as it can create disparities in income distribution and hinder broader economic development (Chugunov et al., 2021). The economic realities in The Gambia starkly highlight the limitations of Ricardian Equivalence, revealing the complex interplay between government borrowing, public spending, and household financial behavior in a low-income context. Understanding these dynamics is essential for developing effective economic policies that adequately support growth and address the needs of vulnerable populations.

2.1.5 Debt Sustainability Frameworks

The Debt Sustainability Framework (DSF) provides critical analytical tools for assessing a nation's ability to manage debt without risking default. Key benchmarks such as the debt-to-GDP ratio and debt service-to-revenue ratio established by institutions such as the IMF and World Bank, serve as vital indicators of fiscal health. For The Gambia, empirical evidence reveals persistent challenges in maintaining sustainable debt levels. In 2019, debt servicing consumed nearly 40% of government revenues, far exceeding the DSF's recommended threshold of 25% for low-income countries. This alarming disparity underscores The Gambia's heightened risk of debt distress and the urgent need for improved debt management strategies to restore fiscal stability. Concessional loans, as highlighted by Beetsma, offer a potential lifeline by providing lower interest rates and

more favorable repayment terms, thereby easing immediate fiscal pressures. While The Gambia has benefited from such financing, the DSF's standardized benchmarks often fail to account for the unique vulnerabilities of small developing economies. These nations frequently depend on foreign aid and face heightened exposure to global market volatility, which can destabilize their economic trajectories. The Gambia's experience demonstrates that while concessional loans alleviate short-term constraints, broader structural weaknesses such as reliance on external financing and susceptibility to external shocks require targeted policy interventions beyond conventional debt metrics.

The Gambia's debt challenges empirically validate the intricate relationship between public debt and economic performance, as theorized in frameworks like the Debt Extension Hypothesis, Ricardian Equivalence, and Keynesian Debt Theory. These models collectively emphasize that debt's impact on growth is neither linear nor uniform, particularly in developing economies where institutional and macroeconomic conditions differ markedly from advanced economies. The Debt Laffer Curve and DSF further illustrate how exceeding optimal debt thresholds can stifle growth, reinforcing the need for context-specific policies. For The Gambia, this means adopting tailored strategies that address its reliance on agriculture, limited fiscal buffers, and exposure to global volatility ensuring debt sustainability while fostering long-term economic resilience.

2.1.6 Overview of Public Debt and Economic Growth

Public debt is a crucial component of fiscal tools that governments use to finance initiatives and manage deficits that arise when spending exceeds income (Atingi-Ego et al., 2021). In developing economies like The Gambia, where domestic resources are scarcer and the tax base is limited, it is especially pertinent to support the development and funding of social needs, desirable infrastructure, and other projects. External debt, which is acquired from foreign governments, international organizations, or other foreigners, and domestic debt, which is borrowed from within the nation, are the two main categories of public debt. Public debt for developing nations is unavoidable but easily manageable, it has become clear. Borrowing helps growth in one sense because it allows governments to use the money to support large-scale projects that increase productivity and create jobs.

A nation's capacity to produce economic goods can be significantly increased by these projects, which include health, education, and infrastructure improvements that have long-term positive economic effects (Thacker et al., 2019). However, as shown by the cases where public debt levels lead to higher debt levels, public debt can also cause

issues. There are fewer resources available for economic investment when a significant amount of gross government receipts is used to pay off debts, which slows growth and maintains fiscal balance. This creates a 'debt overhang' scenario, where excessive debt discourages further investment because investors anticipate that future returns will primarily service existing obligations rather than generate new growth. Basic macroeconomic factors like inflation, interest rates, and private investment are either prevented or influenced by them (Bikker & Gerritsen, 2017). The third area of special risk is rising debt levels; if they get out of control, governments frequently turn to monetary financing to pay off their debts, which leads to inflationary pressures. Inflation reduces real income and stifles growth by increasing costs, decreasing purchasing power, and raising prices. Similar to interest rates, the government is forced to borrow money at higher rates due to competition from the private sector for available funds, especially when it comes to domestic debt. Higher interest rates force institutions to charge more for loans to the public and businesses; as a result, fewer businesses take out loans due to the high cost of credit.

The relationship between debt and growth is somewhat nuanced as well; different kinds of public debt have advantages and disadvantages. For example, domestic debt is borrowed locally, and since it is paid back with local currency, it is not typical to expect that the nation will have to use foreign currency to fulfill its obligations. External debt has disadvantages related to high exchange risk and terms set by external lenders, despite being less expensive and having a longer maturity (Augustine & Kumar, 2020). The external debts in The Gambia are intended to finance long-term developments, whereas the domestic debts provide short-term clarity. However, allowing either type of debt to grow out of proportion can have negative effects on fiscal sustainability by crowding out resources needed for effective public spending and limiting the government's ability to promote overall economic development. Domestic debt is characterized as credit acquired within a nation's financial market, frequently from domestic institutions and represented by government securities like bonds, treasury bills, and credit facilities. In contrast to external debt, which is frequently impacted by exchange rates, this type of debt allows governments to meet their commitments (Yusuf & Mohd, 2021). Given the limitations of both tax revenue and outside funding, domestic debt has been a vital source of funding for the Gambia's expenditures. However, problems that affect fiscal development and private investment arise as domestic debt rises. These structural features highlight the need to achieve sound home debt management in order to minimize fiscal distortions and promote sustainable economic policies. Furthermore, the composition of domestic debt,

including short-term and long-term instruments, also affects the economy, as we have seen in The Gambia, where domestic debt in the form of short-term instruments makes borrowing expensive because it is frequently at short-term rates. Speculative liabilities on the domestic front can force interest rates up because government borrowing steals expensive credit from the private sector. When interest rates are high, there will be high borrowing instances for private businesses, which may slow down investment in the economy.

2.2 Conceptual Framework

2.2.1 Definition and Structure of Domestic Debt

Debts incurred by the government from within the nation it controls are referred to as domestic debts. Treasury bills, bonds, and direct commercial borrowing from banks and other institutions are some of the instruments used for this borrowing (Acharya & Vij, 2020). There are both short-term and long-term financing structures for domestic debt in The Gambia. Treasury bills that mature in less than a year are frequently used to cover short-term funding shortages and working capital needs. Loans given to fund infrastructure projects and other long-term development goals are examples of additional longer-term debt securities. Since the majority of domestic debt is denominated in local currency, external currency risks have little bearing on it. Because of its stability, domestic debt has become a preferred means of funding government spending because repayments are made in local currency, which protects against the erratic fluctuations in foreign exchange rates. However, local debt has its own economic pressures, even though it does not expose the nation to currency pressure. Short-term Treasury bills, which must be renewed often, account for most domestic debt and contribute to The Gambia's high borrowing costs (Bonizzi et al., 2019). In general, interest will become a problem for fiscal budgets when the government continues to roll over short-term debts, leaving less money for investments that will generate higher returns.

The Gambia's fiscal balance is impacted in a number of ways by the makeup of its domestic debt (Ayeni, 2020). Because borrowing must be regularly rolled over at potentially higher interest rates, the excessive use of short-term domestic and foreign debt further jeopardizes fiscal balance. If the government is unable to cover these expenses, local debt may end up being a costly means of financing fiscal operations and may restrict the amount of money available for infrastructure, health care, and education, among other essential societal sectors. Therefore, it is critical to examine the domestic debt structure

considering its impact on the Gambian economy and the long-term viability of the nation's policies.

2.2.2 Effects of Domestic Debt on Private investment

The crowding out effect is arguably the most severe of all the detrimental effects associated with high levels of domestic debt (Lombardi et al., 2017). Interest rates have increased as a result of the government's attempts to borrow money from the domestic financial market in an attempt to increase demand for funds. As a result, when interest rates fluctuate, most businesses' access to credit is restricted and borrowing becomes costly for the private sector. Particularly in the case of The Gambia, where the dominant financial market is relatively small, the crowding out effect is apparent. As a result, the high levels of public debt have driven up domestic interest rate, which has a direct impact on private companies' capacity to secure low-cost credit. Private investment is crucial to the growth of any nation because it promotes advancements in technology, employment, and productivity (Latif et al., 2018). Private companies lose out on the opportunity to grow vertically and play a crucial role in the expansion of the economy when they are unable to secure credit at affordable interest rates. Reduced investment has a detrimental effect on the expansion and diversification of the business sector in The Gambia. Furthermore, lending to the private sector is even more restricted when it comes to the government, which restricts the private sector's ability to play a role in the economy.

The crowding-out effect further alters the structure of economic growth by creating a situation where government spending, rather than the economic activity of the populace, determines the rate of growth. Such an economy is more vulnerable to fiscal hiccups; government spending cuts have a significant detrimental effect on the volume of economic activity. In the Gambia, where the development of a thriving private sector is the strategic goal for sustainable economic growth, the crowding-out effects of domestic debt must be controlled. The ability of the private sector to stimulate long-term economic growth and job creation is thus critically dependent on the availability of reasonably priced credit (Zulkuhri, 2017).

Domestic Debt Servicing and Fiscal Stability

The ability of the government to pay interest and principal amounts on borrowed domestic debt on a regular basis is known as debt servicing (Washington et al., 2019). When interest rates are high or the debt is mostly short-term, the cost of servicing domestic debt can result in significant fiscal costs. This essay looks at the causes of The Gambia's high domestic debt costs and how they have impacted the nation's fiscal

balances and economic expansion. Basic operations and development projects cannot be funded with these sums if debt servicing is relatively expensive. Because interest expenses take up a larger portion of the budget, less money can be allocated to areas like infrastructure development, education, and health. Any reduction in funding has long-term effects on growth because these areas are crucial for improving efficiency and achieving sustainable growth. Measures like high domestic debt servicing have the effect of reducing the amount of money available in The Gambia for investments in growth-promoting ventures.

The need to borrow money to cover the high costs of servicing domestic debt can also lead to an increase in the budget deficit (Verner & Gyöngyösi, 2020). As a result, the government is forced to borrow money repeatedly in order to pay off its previous debt. If this cycle continues, it will lead to fiscal instability and increase the likelihood of a debt crisis. In particular, the growth of domestic debt as a burden on The Gambia's fiscal balance in later years is a sign of the country's ongoing debt sustainability issues as well as its potential fiscal future. Additionally, the government's ability to act as a shock absorber mechanism to improve the operation of upstream activities is diminished by high domestic debt servicing costs. The government finds it difficult to implement counter-cyclical policies, like higher spending during an economic downturn, when it is overly focused on the fiscal resources needed to pay off the debt. The economy's volatility against changes in global values may be affected by this circumstance, which could interfere with the best way to control external shocks (Majeed & Mazhar, 2019). Because of The Gambia's high levels of domestic debt, debt servicing is expensive, endangering fiscal balances in the present and limiting the fiscal policy's ability to contain future shocks. This is particularly crucial because the nation must maintain fiscal responsibility while simultaneously servicing its domestic debt. In order to mitigate the effects of economic instability, governments control domestic debt and make appropriate use of borrowed funds by investing in productive facilities. Deleveraging short-term external debt has involved short-term external debt instruments for The Gambia (Essl et al., 2019).

2.2.2 Definition and Structure of External Debt

The total amount of money a nation owes its creditors from other countries, including international organizations, foreign governments, foreign banks, and any other external counter party, is referred to in this paper as its external debt (Buchheit & Gulati, 2018). Due to social and economic reforms that started in the 1990s, many LDCs are unable to

fully finance such extensive developments with domestic resources, so external debt relief acts as a strong source of funding. However, it has some drawbacks, like the need to repay the credits in foreign currency and reliance on changes in the Bank's major international rates, which makes external debt a problematic issue for both national economic stability and economic management.

Three primary criteria ripeness, debtor category, and creditor category can be used to classify the external debt structure. Figure 2 below goes into further detail about these categories.

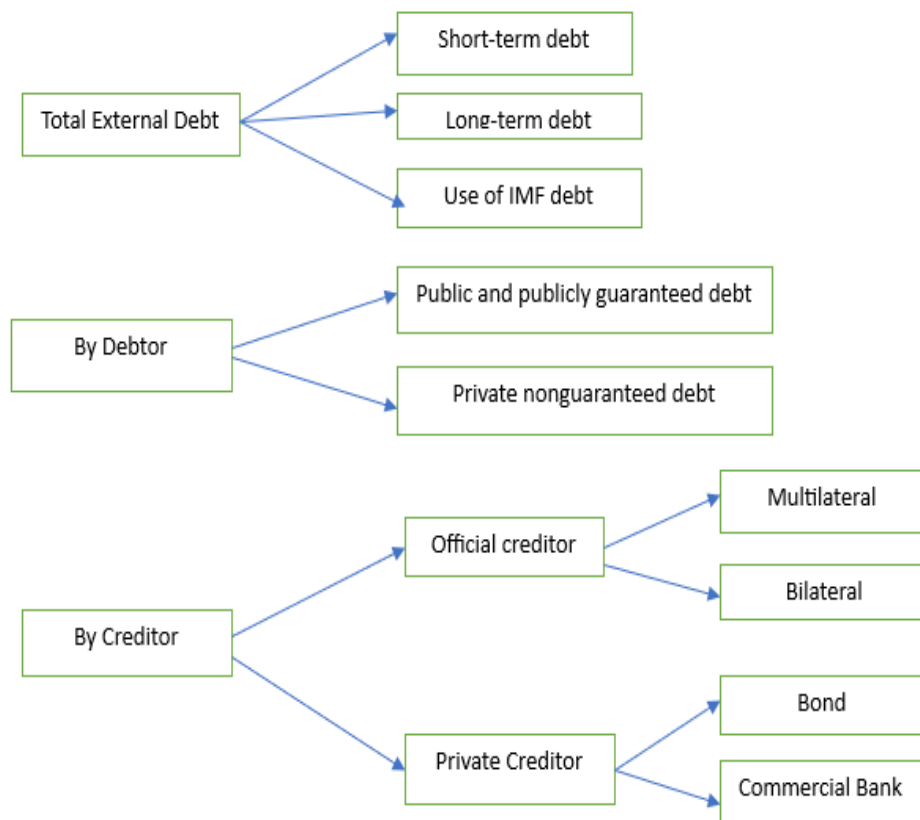


Figure 2.1 Structure of External Debt

Source (Author creation)

External funding sources are divided into three categories based on their maturities: short-term, long-term, and IMF sources (Cortina et al., 2018). Trade credits and other similar account payables are classified as short-term liabilities because they must be paid within a year in order to satisfy short-term financing needs. Conversely, long-term debt is intended

for long-term projects, particularly those in development, which could take a long time to finish. Since it deals with shocks to the balance of payments and any other significant economic issues, IMF debt is a separate category that is frequently used for macroeconomic conditions.

External debt can also be divided into two categories based on the type of debtor: public debt that is publicly guaranteed and private debt that is not. International public and publicly guaranteed government debt include any commitments made by governments directly or on behalf of state-owned businesses or other public entities that are listed on the government's balance sheet (Baum et al., 2020). Such debts typically finance projects that have significant public utility value, such as building schools, hospitals, or infrastructure. Conversely, private non-guaranteed debt is debt incurred by private parties without assurance of government assistance. It is widely used to fund private companies and investment endeavors due to the need for private sector funding, particularly in developing economy, are many and varied.

When it comes to external debt, the two types of bilateral creditors that are part of the multilateral system are official and private creditors. According to the following table, the official creditors are both bilateral and multilateral. Global financial organizations like the World Bank and the International Monetary Fund are examples of multilateral creditors (Toye, 2019). They offer floating loans with long-term repayment plans designed to promote development. Bilateral creditors are specific foreign governments that lend money to the nation directly, typically through an intergovernmental agreement. Conversely, this refers to non-governmental creditors, such as commercial banks and bond and creditors. The use of bonds that are purchased or sold on international financial markets is implied by financing derived from bond markets. Other external funding sources include official credit and private liabilities, such as commercial bank loans, which are more expensive than official credit but have shorter maturities.

The characteristics of external debt Creditor and debtor types, when broken down according to the maturity profile, offer some insight into the nature of liabilities and the degree of sophistication that may be needed in the handling of these claims (Laskaridis, 2021). Every category has an impact on the macroeconomic impact, the cost of debt service, and the timeline for debt repayment. Effective management of these areas is necessary for optimal economic growth, balanced fiscal policy, and the avoidance of high external sensitivity.

2.2.3 Exchange Rate Risk and External Debt Servicing

A common vice associated with external debt is exchange rate volatility, which is particularly dangerous for a developing nation like the Gambia because most external debts are payable in foreign currencies, but concerning Gambian dalasi. To pay off the same percentage of debts, more foreign currency must be obtained as the dalasi currency depreciates, which drives up the cost of servicing external debts. The exchange rate risk is primarily felt during periods when the state of the world economy justifies, for example, the strengthening of the USD or the Euro relative to the dalasi. The cost of debt servicing, for example, is eliminated by significant dalasi devaluation, which may put undue pressure on the national budget to reduce funding for other important sectors like infrastructure development and public services (Jeng, 2018). But in order to counteract this risk of depreciation, The Gambia might have to increase its exchange reserves, which would require taking money out of other areas. The Gambia's fiscal policy is particularly sensitive to fluctuations in exchange rates, which have a significant impact on the external debt repayment plan. As a result, the country should implement measures to reduce the gains on exposure to foreign exchange risk.

2.2.3.1 Conditionality of External Debt and its Macroeconomic Impact

When the IMF, EBRD, and other first-level creditors demand policy changes and adjustment reforms before making loans, this is known as external debt conditionality. Such circumstances can be used to promote economic reforms and debt sustainability, although the latter has a propensity to limit the independence of national fiscal policy (Baharumshah et al., 2017). Due to these circumstances, The Gambia must reduce its spending, raise its income, and embrace free market principles and structural changes. These policies limit government spending on social development, particularly in the areas of health, education, and infrastructure. This is true even though they may be intended to promote economic stability. The costs, however, can significantly outweigh the opportunities, actively impeding the achievement of development goals and more significant socioeconomic issues. Second, while strict adherence to conditions increases credibility, it may overemphasize the economy's dependence on foreign policies rather than its ability to adapt to local circumstances. These conditionality's have a number of macroeconomic effects, including Initially, the nation is anticipated to have a low growth capacity due to the government's primary focus on debt repayment rather than fostering healthy and genuine economic growth.

2.2.4 Impact on Interest Rates

The amount of public debt a nation has can have an impact on interest rates, especially when it comes to developing nations where financial markets are smaller and more sensitive to shifts in the amount of money that governments borrow. In the Gambia, the government must borrow money to pay for its expenses. This borrowing, particularly through the issuance of bonds, raises demand for domestic credit and pushes interest rates higher in the domestic financial markets (Menna & Tobal, 2018). Commercial organizations prefer to lend to the government because it is less risky than other types of borrowers, which inhibits the independent sector's ability to borrow at a low cost. This phenomenon is frequently referred to as the crowding-out effect. Because businesses have higher financing costs, high interest rates discourage new startups and limit SMEs' opportunities for lateral growth, they discourage private sector investment. Consequently, the slowed growth of the private sector hinders the creation of new specialties, employment opportunities, and technological advancement. From a broader standpoint, the crowding-out effect is a barrier to sustainable economic growth since the private sector is a major source of income and jobs. Therefore, in order to benefit from low interest rates that act as a catalyst for economic growth, the Gambia's government must maintain control over the amount of public debt.

2.2.4.1 Debt and Inflation

The relationship between inflation and public debt is actually quite close, and they frequently respond in ways that are unique to particular economies, like The Gambia, where monetary and fiscal policy responses are frequently influenced by the outside world. Regrettably, the nation experiences inflationary tendencies during periods of high borrowing rates, such as when the government chooses to do so by printing more money in an attempt to pay its debts. Currency devaluation and a decline in purchasing power due to rising import prices are two factors that contribute to inflation. Additionally, because inflation theoretically lowers the actual interest required to be paid on the nominal repayment of bonds, inflationary policy lessens the actual burden of debt. However, since inflation is typically linked to declining real income, deteriorating living standards, and the potential for social unrest, this provides relief at the expense of overall macroeconomic instability. Similar to other nations, The Gambia also imports inflation, which is influenced by the price of food and energy globally. Inflation and debt levels are more closely related. High inflation can discourage investment because it raises operating costs for businesses as they seek out more expensive inputs and services (Olusola et al., 2022). Eventually, this can force the central bank to raise interest rates in order to reduce

inflation, which will have an impact on debt and economic stability. Therefore, borrowing and spending by the government are important in The Gambia. Any nation that borrows must carefully implement borrowing and spending policies to prevent an inflationary spiral that could hurt the country's economy and maintain a balance between public debt and inflationary pressure.

2.2.4.2 Foreign Direct Investment and Debt Levels

Due to its lower risk than debt financing, foreign direct investment (FDI) is a more effective way to raise money for development than a funded system. Naturally, high levels of public debt have a negative impact on foreign direct investment inflows because prospective investors view indebted nations as high-risk due to the potential for higher taxes to be applied to debt service and the existence of instability. The Gambia may appear financially vulnerable to creditors as a result, and any foreign investor may become discouraged due to concerns about the stability of returns on their investments. Third, a high debt load suggests that many nations spend a portion of their foreign exchange earnings on debt repayment rather than funding domestic initiatives (Ogbonna et al., 2021). This means that relying too much on debt rather than investment limits the ability to generate economic activity and impacts the ability to draw in a diverse flow of foreign direct investment. The advantage of improving The Gambia economy structure through employment, technological advancement, and market opening, however, is evident from the rise in FDI. Because a healthy balance of both fosters investment and economic growth while excessive debt can destroy it, the relationship between debt accumulation and foreign direct investment (FDI) inflows is crucial for maintaining economic stability.

The Gambia's economic development plan heavily relies on government borrowing, both domestically and internationally. This is a crucial source of funding for social capital formation and infrastructure, but it is not without its challenges, which are best managed by experts. The opportunity to obtain funds from the global financial market is provided by external debt, but it also has drawbacks. Two major factors are exchange rate fluctuations and creditor conditionality, which can have a detrimental impact on the macroeconomic stability and flexibility of domestic economic policies (de Paula et al., 2017). Similarly, while domestic debts do not carry currency risk, they do raise local interest rates, which deters private investment which is essential for new production lines and job opportunities as well as economic diversification. Public debt has complex macroeconomic effects that are both precise and wide-ranging. Because high debt raises the interest rates that the government must pay and makes credit more difficult

to obtain for businesses, it lowers the cost of borrowing. Additionally, they explained how debt and inflation are related in order to take monetary financing into account because it causes inflationary pressures that pose a threat to the economy. Finally, large debt may discourage foreign direct investment (FDI) since it signals economic risk, which discourages the attraction of capital needed for expansion.

2.2.5 Economic Growth, Financial Development, and Public Debt

Majeed et al.'s (2019) study uses 131 nations from 1971 to 2017 to investigate how financial development affects the environment. The paper examines pooled OLS, fixed effect, random effect, DKSE, and SGMM and concludes that the ecological footprint is reduced by domestic bank credit, domestic private sector credit, and total financial sector credit. Most prominently, domestic credit to the private sector shows the highest variable here. On the other hand, ecological footprint has a reverse relationship with level of urbanization, energy consumption and FDI and gross per capita income. The overall findings of the study are in line with the Pollution haven hypothesis; it disclosed that increased FDI inflows correlates with increase in pollution. It also highlights the possibilities of financial institution in environmental conservation through financing for environmentally sustainable projects. On a balance, the interactions imply that financial development augments the pace of polluting, but this does not translate into an unequivocal adoption of policy recommendations.

The purpose of this study is to conduct an empirical investigation of the relationship between financial intermediaries and developing countries' economic growth Odedokun, M. O. (1996). It emphasizes how crucial it is for institutions to mobilize savers' money so they can engage in profitable ventures with better economic outcomes. The study's data is also analyzed by the authors using a Vector Auto regression (VAR) model. The data set used in this study spans the years 1980 to 1993 and includes indexes of many different developing economies. The finest financial systems encourage capital formation and proper allocation procedures to produce greater economic returns since the results of the analysis show that higher levels of financial intermediation are linked to improved economic circumstances. They come to the conclusion that having adequately established financial sectors can have a significant impact on economic growth in emerging nations. Kumar, M. S. et al (2010). This study aims to analyze the relationship between fiscal deficits and public debt, and the economic growth of the country. To this end, the authors emphasize understanding how government borrowing affects growth, especially in developing countries. The research used a dynamic panel data model for the

analysis of the countries involved in the study and data covering the time period of 1980 to 2008. The evidence provided supports the fact that high levels of public debt are fatal for economic growth in the case of LICs because these hinder private sector development through the crowding-out effect. In view of this, the authors posit that even though debt is necessary for growth, too much of it can be counterproductive when it comes to economic performance, hence the call for fiscal responsibility. Westphal, C., & Rother, P. (2012) This paper examines the role of government debt on growth, possible optimal threshold level beyond which government debt reduces growth. By employing a panel cointegration approach, the authors work with data from 1970 to 2010 for the Eurozone countries. The research also demonstrates that US growth slows whenever government debts cross the 90% GDP mark, which again shows that there is no direct correlation between debt and growth. Although, according to the above research, moderate amount of debt may enhance growth, more debt is likely to pull down the economic growth and intensify fiscal woes. The authors give account of the need of controlling sustainable amount of debt for the growth of the economy.

Panizza and Presbitero's 2014 research employs a cross-sectional analysis of data from 127 developing countries to investigate the causal relationship between public debt and economic development. Their analysis is based on a vast and varied dataset that spans the years 1970–2011 for numerous nations. The authors use a variety of econometric approaches, including fixed-effects models, panel data methods, and instrumental variables, to address the endogeneity and omitted variable issues. The obtained findings suggest that although in some cases public debt has a negative correlation with the growth of economic indicators, the effective evidence pointing to direct cause and effect is still not cogent. They point out that this means that high levels of debt are injurious to growth especially when total debt increases to a certain point. But it doesn't have a simple correlation, and it differs from country to country and from one trend to another.

2.2.6 The Role of Public Debt in Economic Development

The importance of fiscal credit as a tool for assisting government operations in least developed nations such as The Gambia has long been recognized. Another one has a great job to do in the face of an ever-increasing spending appetite by governments and low domestic revenues. Most developing countries find it difficult to mobilize sufficient internal resources for development because of low tax levels, poor collection mechanisms, and other structural factors (Kola Benson Ajeigbe et al., 2023). Consequently, public debt plays a significant role in providing funds for obtaining the

required resources for implementing development activities using social and infrastructural investment. However, to some extent, it is quite a risky business, given the degree to which global value chains have become dependent on borrowing. It is commonly believed that only a great amount of debt is useful, as investment funds develop the leverage of the projects that potentially increase the productivity levels. On the other hand, like a situation of insufficient capital accumulation or control.

Borrowing has remained crucial for funding budget deficits and maintaining the majority of government functions, as demonstrated in the Gambia case. The country has relied on domestic and foreign resources, including borrowed funds, to finance its development projects. Internal debt is borrowing from local sources like banks, business and individuals while external debt is borrowing from international institutions, foreign governments and creditors (Okeke et al., 2022). Despite the multi-facility of public debt, the issue of balance in debt poses a major problem of sustainability. This implies that high levels of public debt could distort the economy through demand for debt service, which reduces the level of fund available for profitable investment. For this reason, there is need to understand the characteristics of debt as well as its impact on economic growth so as to effectively understand the implementing strategies that enable borrowing from Development Partners.

2.2.7 Types of Public Debt in the Gambia

The Gambia's total public debt can be broadly divided into two categories: external debt and domestic debt, also known as internal debt. The distinctions between the characteristics, risks, and effects of various forms of debt on the national economy must be discussed.

2.2.7.1 Domestic Debt

A government's domestic debt, also referred to as internal debt, is the credit arranged locally, while its foreign debt, also known as external debt, is the credit it obtains from other countries. This is achieved in The Gambia through borrowing from the local banks as well other credit institutions through treasury bills, bonds etc. The first advantage of the domestic debt is that is in Gambian dalasi, which limits exchange rate risks. Further, used by local banks, interest costs on domestic debt are circulated within the domestic economy (Ozdemir & Gomez, 2020).

Domestic borrowing does however have its switch points as will be explained below. A credit crunch for businesses and homeowners is the occurrence when

government becomes a direct player in the loan market, which leads to a detrimental effect on domestic interest rates. This effect is known as crowding out effect, and results in restrictions in private expenditures and slow economic growth. As for international debt, problems like escalating levels of domestic debt in The Gambia have or pay interest and the impact of this type of debt on output. When the domestic interest rates are high, there is less fiscal and capacity to finance the important sectors of the national economy or the major elements of the Gross Domestic Product such as infrastructures, health facilities or education sector respectively (Jakovljevic et al., 2020).

2.2.7.2 External Debt

The amount that a nation owes to other nations or international organizations is specifically referred to as external debt, or foreign debt. These are both local funds from foreign governments and other commercial banks, as well as funds from international banks like the World Bank, the International Monetary Fund, and other international lenders. In developing nations like The Gambia, which rarely have enough internal savings, let alone the financial resources to ensure the execution of large investment projects, external borrowing is particularly important. In contrast to domestic financial markets, international financial institutions offer longer maturity rates and non-concessional interest rates (Azolibe, 2020).

External borrowing carries significant risks, particularly when the debt is denominated in a different currency. As a result, exchange rates can easily make the actual burden of repaying external debt even more onerous when local currency depreciates. The Gambia's government finances are in trouble because, for instance, a government with external debts may find that servicing these debts comes at far higher costs than anticipated, depending on how the dalasi is valued in relation to major foreign currencies like the US dollar and the euro. Similarly, the nation is still vulnerable to outside economic shocks and the policies of creditor nations or organizations, which result in borrowers being subject to conditions (Brkić, 2021). The total debt of The Gambia in 2023 was 1,742.11 million USD, of which 399.6 million USD were internal debts and 1,342.51 USD were external debts. External debt was reportedly higher at 1125.34 million USD, while domestic debt was 616.77 million USD. This further demonstrates how much of The Gambia's debt is derived from foreign borrowing. Once more, external debt presents particular difficulties, especially exchange rate volatility and terms imposed by external creditors. Despite its usefulness, this borrowing strategy has

proven costly to the nation's fiscal fabric because it was necessary to borrow money to finance developmental projects and budget deficits.

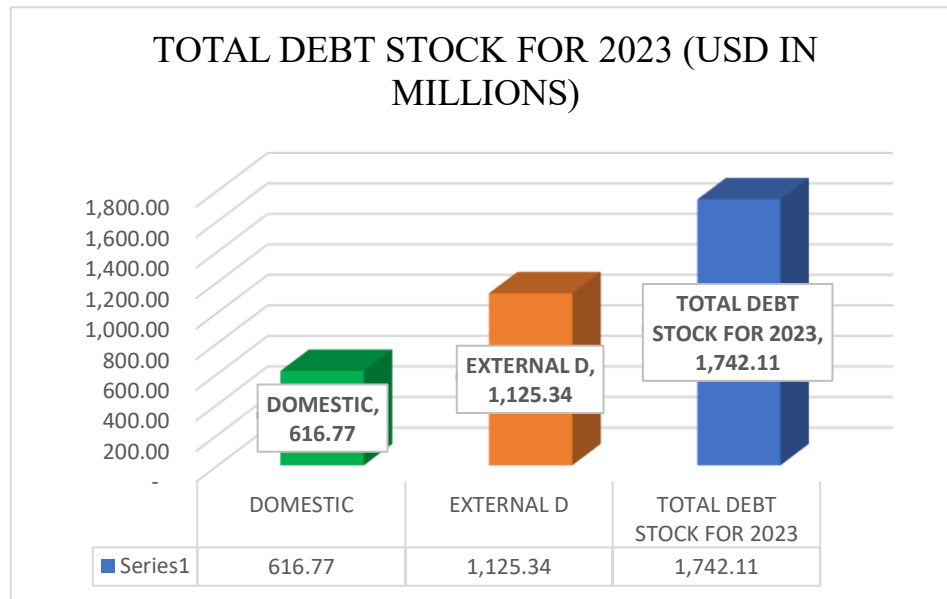


Figure 2. 2 Total Debt stock for 2023(USD in millions)

Source (World Bank Data)

2.2.8 The Macroeconomic Impact of Public Debt

Public Debt when accumulated, public debt, whether external or domestic, always has an impact on a nation's macroeconomic stability. Some of the factors that define how debt affects economic growth are as follows: Interest rates, inflation, and foreign direct investment.

2.2.8.1 Interest Rate and Debt Servicing

The cost of borrowing for the government is largely determined by interest rates. The burden of servicing debt can be increased by high interest rates, especially on domestic debt, which takes money away from useful investments. The government of The Gambia is facing financial difficulties as a result of the increased cost of servicing its domestic debt due to rising interest rates (Ayeni, 2020). A large amount of the national budget is now used to pay back loan interest rather than financing initiatives that could promote long-term economic growth as a result of the rise in debt-servicing expenses. Large government borrowing may raise domestic interest rates, which would make it harder for private companies to get credit at reasonable rates. Growth in the private

sector, which is essential for the creation of jobs and general economic development, may be inhibited by this. In addition, rising global interest rates can exacerbate fiscal stress by increasing the debt load if external debt is taken on at variable interest rates (Malovaná et al., 2022).

2.2.8.2 Inflation and Effects on Debt

The other significant factor that mediates the relationship between public debt and economic growth is inflation. The paradox of rising debt is that, in an inflationary environment, the real value of the debts to be paid down also decreases, potentially providing relief to the government, as demand for borrowed funds rises. However, because it devalues currency and makes investing in an economy uncertain, high inflation lowers overall economic welfare. The analysis shows that frequent periods of high inflation rates have made The Gambia's public debt issues worse. Lectures for the first the International English Language Testing reading practice test 42 Definitions Interest rates could rise as a result of inflation since lenders will raise their rates in response to the rising cost of borrowed funds. Additionally, rising inflation causes social unrest because it lowers real wages, forcing the government to spend more on social amenities like subsidies. These higher spending actually cause the fiscal deficit to rise, which in turn causes borrowing to rise, creating a vicious cycle of inflation and fiscal deficits.

2.2.8.3 The Role of Foreign Direct Investment (FDI)

Foreign direct investment (FDI) is a significant source of foreign exchange that is less expensive than borrowing because it supports domestic investment. FDI covers more than just the transfer of foreign development funds; it also covers the dissemination of technology, better management, and market exposure (Joshua, 2022). FDI can boost economic growth by creating jobs, increasing productivity, and creating competition for domestic industries, according to economic literature on the topic in countries like The Gambia. However, the macroeconomic, regulatory, and political stability of the nation all of which are reflected in the following subareas are among the factors that affect how effective foreign direct investment is. Large public debt levels tend to discourage foreign investors because they are seen as too credit risky or fiscally irresponsible. Furthermore, a large portion of foreign earnings going toward paying off external debts reduces the amount of foreign currency that can be used for other economic purposes, which weakens The Gambia's appeal to foreign direct investment.

2.2.8.4 The Need for Debt Sustainability

The Gambia's rising levels of public debt, both domestic and especially foreign, have become serious problems for the country's fiscal stability. The debt-to-GDP ratio, the second indicator of debt stability, shows whether a nation's debt is long-term sustainable. Over the past ten years, The Gambia has also increased the amount of interest it pays each year as a percentage of its total exports of income, goods, and services. Additionally, the Gambian economy's debt to GDP ratio appears to have increased (Jarju, Saikouna E, 2021). The ability of the borrower to meet future debt service obligations, including current and future debt service obligations, without jeopardizing the nation's economic stability through additional borrowing is known as debt sustainability (Okeke et al., 2022). It becomes nearly impossible for a nation to repay debt once it reaches these levels, which results in payment defaults, financial crises, low investment, and additional suffering for the nation. Debt sustainability is a serious issue in The Gambia, as it is in many other Sub-Saharan African countries, primarily due to the nation's heavy reliance on outside funding and its relative susceptibility to outside influences. To achieve debt sustainability, The Gambia would be required to adopt good fiscal policies that would promote reasonable borrowing behaviors, reasonable expenditure on the borrowed sources and proper debt management (Where Credit Is Due, 2021). This would translate to higher collection of domestic revenue, elimination of wasteful expenditures and ensuring the funding of the few economic activities. Also, when the steps towards attracting FDI are taken there is no burden on foreign borrowing, in consequence, FDI then becomes a much safer mode of raising funds towards development.

2.3 Previous Studies

2.3.1 Studies on Debt-Growth Nexus in Developed Economies

A landmark study of Reinhart and Rogoff (2020) carefully analyzed the correlation between the size of public debt and the economic growth of 44 societies over 200 years. The analysis across all countries afforded them to note the existence of a critical threshold effect where countries had a much slower growth rate when the debt to GDP ratios went above 90%. This was a critical finding, which sparked a lot of debate and discussion among the policymakers and economists, especially in the wake of the 2008 financial crisis, since it was implying that excessive indebtedness of the government could halt economic growth.

The findings of Reinhart and Rogoff were however disputed by Herndon et al in (2014), who treated quite a number of methodological flaws in the study. They were the

absence of some important data, poor weighting of some observations, which made the negative correlation between the high levels of debts and the economic growth larger than in reality. The critique provided by Herndon et al. pointed at the importance of serious statistical standards in economic studies.

Also, Checherita and Rother (2012) studied in detail twelve Euro area states within the course of 40 years. Their empirical evidence was that the relationship between public deficit and economic growth was not linear, and the adverse effects were realized when their levels were above 90-100 percent of GDP. They explained it by an array of linked processes, such as the impact of soaring rates of private savings, swings in government expenditure and in total factor productivity. In their work, they focused on the fact that the influence of the debt on economic performance may depend considerably on the current nature of macroeconomic conditions and demonstrate how complicated this relationship might be. As an addition to the discussion, Panizza and Presbitero (2014) tested that high levels of public debt could be instrumentally varied to determine any issue of causality and economic growth. In their findings, they have shown minimal evidence proving the fact that high debt directly refers to slow growth in advanced economies. They instead suggested that it is a logical idea to have shared underlying reasons that influence both high debt load and low economic growth making the direct causality assumption. This study has made us aware of the complexity of the dynamics of fiscal policy and how careful change should always be applied through policy which should always be modified to suit that particular economic situation.

2.3.2 Studies on Developing Economies and Debt Sustainability

Research in the developing countries has its various thresholds and mechanisms as compared to the more developed nations. In an analysis of 93 developing countries, Pattillo et al. (2011) found that growth contractionary levels of indebtedness were above 35-40 percent of GDP but well below the rates previously established in mature countries (0.585 percent of GDP above which growth starts being contractionary). The research found out that there was a propensity of developing country debt to crowd-out out personal consumption and cause uncertainty of policy. Mensah et al. (2019) examined 38 Sub-Saharan African countries in detail with the distinction between the consequences of the domestic and the external debt. When it comes to external debt, more significant negative effects were seen than it comes to the domestic one, with the accent given to the importance of the structure, not the levels of it. It was shown external debt-exchange rate vulnerabilities are the decisive source of adverse effects. Ncube and Brixiova (2015)

looked at Sub-Saharan countries' debt sustainability individually and proved that institutional quality and governance determinants heavily impacted sustainable thresholds of debt. The countries with more robust institutions exhibited the ability to sustain higher levels of debt while avoiding the sacrifice of growth.

2.3.3 Regional and Country-Specific Debt Studies

Developing country research produces different thresholds and mechanisms with respect to the more mature countries. Pattillo et al. (2021) examined 93 developing countries and concluded that rates of indebtedness above 35-40% of GDP were contractionary for growth notably below thresholds for mature countries derived from earlier work. The tendency of the debt of the developing countries to crowd-out the consumption activity of the privates and creating a policy uncertainty were revealed through the study. With the distinction between domestic and foreign debt implications, Mensah et al. (2019) examined 38 Sub-Saharan Africa countries thoroughly. Very crucial adverse effects of external debt were exposed relative to domestic debt whereby stress was being made on the importance of the structure and not the magnitudes of the same. The results indicated that the most significant channel of adverse effect was generated by external debt-exchange rate vulnerabilities. Ncube and Brixiova (2015) examined the debt sustainability of Sub-Saharan countries on a case-by-case basis and demonstrated that systematic quality institutes and governance factors played a crucial role on sustainable levels of debts. Those countries that have stronger institutions revealed the capacity of maintaining greater levels of debts without letting them forfeit growth.

Repaying the debt While the Interplay of the public debt, economic growth and development in the West Africa region has drawn a lot of scholarly interest especially at a time when the region economies are struggling to cope with the continued financial constraints, the focal point of discussion has been on how to clear the debt. Referring to the initial analysis of Omotola and Dolapo (2018), who concluded that the debt having to be serviced (as opposed to its total amount) is a disastrous weight on ECOWAS economies, the later research in this area made a further step regarding country-specific dynamics. This part integrates the modern research (2020-2025) of Ghana, Nigeria, Senegal, Liberia and Cote d'Ivoire, illustrating conflicting issues and policy implications. In the article "Public-Private Partnerships (PPPs) and Debt Sustainability in Nigeria Infrastructure Sector," Eze and Okonkwo (2024) discuss other sources of finance. The case studies they have made concerning Lagos-Ibadan Railway and Abuja Light Rail projects indicate that having structured PPPs enables it to mitigate sovereign debt risks

using the available capital by the privates. Weak regulatory systems and politicking are, however, major factors which discourage investor involvement. The authors recommend the independent oversight agencies to improve on transparency and accountability in the implementation of PPP.

The experience of Senegal concerning the Eurobond sponsored development schemes is a lesson to be learnt. In the article *Low Eurobond Proceeds in Productive Investment: Lessons Learned in Senegal*, Diop and Ndiaye (2020) criticize the spending of the Eurobond funding of 2.2 billion dollars (2011–2019) in non-tradable markets such as the real estate sector where little export diversification occurred. According to the study, this misallocation is related to the low control by the parliament and special interests, and so unless the institution is being reformed, debt-motivated growth models are likely to continue to lead to external imbalances.

The case of Liberia in management of post-civil war debt gives one of the disparate views on post-HIPC (Heavily Indebted Poor Countries) issues. In the article, Johnson and Sirleaf (2021), in *Debt Relief and New Borrowing in Liberia: A Fragile-Equilibrium*, tracks the process of the initial use of debt relief under the HIPC initiative (2006–2010) to create fiscal space that was used to reduce poverty. Nonetheless, subsequent borrowing in the roads and energy sector, usually on non-concessional terms, eroded these gains, and the debt to GDP ratios rose to 53 percent by 2023. The paper attributes this to poor debt management offices and absence of public expenditure audits as it calls upon the multilateral lenders to apply higher conditionality's.

The reliance of cocoa exports constitutes the aspect of debt sustainability in Cote d'Ivoire. In *Commodity Shocks and Debt Dynamics in Cote d'Ivoire*, Kouakou and Traor (2023) make use of stochastic debt sustainability analysis (DSA) technique to model the effect of cocoa price variations. According to their simulations a 20 percent fall in cocoa prices increases the debt distress risk by 35 percent and this kind of situation requires hedging instruments like commodity linked bonds. The research also emphasizes on how climate change increases volatility in production to the extent that green bonds should be used to fund adaptive infrastructure.

2.3.4 Methodological Approaches in Debt-Growth Studies

Methodological approaches to studying debt-growth relationships have evolved substantially. Early correlation studies have given way to more sophisticated techniques addressing endogeneity concerns. Panel methods, instrumental variables approach, and

dynamic panel estimators have become standard in addressing potential reverse causality between debt and growth. Threshold models employed by researchers like Égert (2015) have gained prominence in identifying non-linearity's in debt-growth relationships. Meanwhile, country-specific analyses using ARDL and VAR approaches, as demonstrated by Yusuf and Mohd (2021), have provided nuanced insights into individual country dynamics that panel studies might obscure. Recent empirical analysis incorporates institutional quality metrics, debt structure variables, and financial development indices as crucial moderating factors that qualify the relationships between growth and debt, particularly for weaker institutional environments of developing countries.

2.4 Conceptual Framework

Figure 3 presents the conceptual framework guiding this study on the impact of domestic and external debt on economic growth in The Gambia. The framework explains the interconnections between three key components: public debt (distinguished between domestic and external debt), transmission mechanisms, and economic growth outcomes. The left side of the framework presents the two broad categories of public debt in The Gambia. Domestic debt is government borrowing from the domestic financial markets through treasury bills, bonds, and other instruments. External debt is government borrowing from international financial institutions, foreign governments, and external creditors. At the center of the model are the transmission channels through which public debt affects economic growth. These include interest rate effects, whereby government borrowing can push up domestic interest rates; exchange rate channels, particularly relevant to external debt; fiscal space constraints, insofar as debt servicing tightens resources for development; investor confidence effects; and debt threshold effects, whereby debt turns harmful at some point. The right side shows economic development outcomes as reflected by GDP growth rate, private investment, and levels of employment. These outcomes reflect the performance and level of development of the economy. The country-specific contextual factors for The Gambia are at the top of the framework, influencing all relationships within it. These include its small open economy status, institutional quality, agricultural dependence, and level of financial development. These country-specific conditions dictate how debt affects growth through various transmission channels.

The model captures the non-linear, intricate relationship between public debt and economic growth, acknowledging both the potential contributions of debt to growth, as

well as its potential adverse consequences if not efficiently managed or in surplus. This conceptual model guides the empirical analysis in the subsequent chapters.

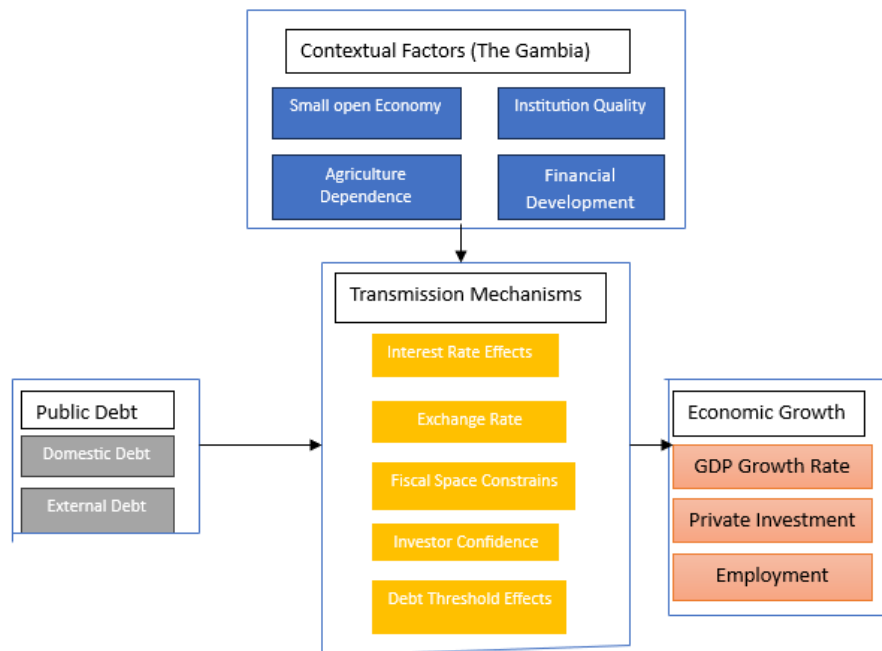


Figure 2.3 Conceptual Framework

Source: (Self-Generated)

Table 2.1 *Limitations from Previous Studies.*

Study	Limitations
Reinhart & Rogoff (2020)	Methodological flaws, including data exclusion and weighting errors, overstated the negative debt-growth relationship (Herndon et al., 2014).
Herndon et al. (2014)	Critique focused only on data errors without providing alternative empirical thresholds.
Checherita & Rother (2012)	Limited to Eurozone economies; findings may not apply to developing nations like The Gambia.
Panizza & Presbitero (2014)	Found weak causal evidence but did not explore country-specific institutional factors affecting debt sustainability.
Mensah et al. (2019)	Focused on external debt but did not sufficiently analyze domestic debt dynamics in SSA.
Ncube & Brixiova (2015)	Highlighted institutional quality but lacked empirical quantification of governance-debt thresholds.
Omotola & Dolapo (2018)	ECOWAS study ignored country-specific fiscal policies affecting debt servicing capacity.
Eze & Okonkwo (2024)	Nigeria's PPP case studies lacked long-term debt impact assessments.
Diop & Ndiaye (2020)	Senegal's Eurobond analysis did not compare alternative financing models (e.g., concessional loans).
Johnson & Sirleaf (2021)	Liberia's post-HIPC study lacked counterfactual scenarios (e.g., no debt relief)
Kouakou & Traoré (2023)	Côte d'Ivoire's commodity-price model omitted climate adaptation costs in debt

	projections.
Odedokun (1996)	Dated analysis (1980–1993) may not reflect modern financial intermediation dynamics.
Kumar et al. (2010)	Used aggregate debt metrics without disaggregating domestic/external debt effects.
Westphal & Rother (2012)	Eurozone focus; 90% debt threshold may not apply to low-income economies.
Ayeni (2020)	Gambia-specific but relied on short-term data (2015–2020), ignoring structural trends.
Okeke et al. (2022)	Highlighted debt mismanagement but did not propose policy alternatives.
Murungi & Okiro (2018)	Ricardian Equivalence test in The Gambia ignored informal sector savings behavior.
Onafowora & Owoye (2017)	Theoretical framework lacked empirical validation in small island economies
Majeed et al. (2019)	Ecological footprint focus diverted from core debt-growth nexus analysis.

A critical examination of previous studies reveals several key limitations that constrain their applicability to The Gambia’s context. First, generalizability issues arise as many studies, such as those by Reinhart & Rogoff (2020) and Checherita & Rother (2012), derive conclusions from advanced economies, which may not hold true for developing nations like The Gambia due to differences in economic structures, institutional capacities, and financial systems. Second, methodological gaps persist in studies like Pattillo et al. (2011) and Mensah et al. (2019), which often rely on aggregate debt metrics without disentangling the distinct effects of domestic and external debt, thereby obscuring their differential impacts on growth. Third, temporal constraints limit the relevance of older studies, such as Odedokun (1996), whose findings may not account for modern financial dynamics, including the rise of digital banking, evolving debt instruments, and post-2008 global financial shifts. Finally, country-specific omissions are prevalent, with few studies addressing The Gambia’s unique socioeconomic realities, such as its heavy reliance on agriculture, vulnerability to climate shocks, weak institutional frameworks, and small open economy status factors that significantly influence debt sustainability and growth outcomes. These limitations collectively

underscore the need for context-sensitive research tailored to The Gambia's specific conditions.

CHAPTER III

RESEARCH METHOD

3.1 Overview

This chapter elaborates on the research methodology employed to analyze the relationship between public debt and economic growth in The Gambia. The study adopts a deductive approach, testing hypotheses derived from existing economic theories (Saunders et al., 2019). The research design is causal, aiming to determine how different debt variables influence economic growth indicators (Wooldridge, 2020).

The methodology involves:

1. Descriptive statistics to summarize data trends.
2. Stationarity tests (Augmented Dickey-Fuller (ADF) and Kwiatkowski-Phillips-Schmidt-Shin (KPSS)) to check for unit roots (Enders, 2014).
3. Cointegration analysis (Engle-Granger or Johansen test) if variables are non-stationary (Lütkepohl, 2005).
4. Autoregressive Distributed Lag (ARDL) models depending on integration order (Pesaran et al., 2001).
5. Diagnostic tests (autocorrelation, heteroscedasticity, multicollinearity) for robustness (Gujarati & Porter, 2009).

3.2 Research Design

The research employed the deductive approach in following a theory-generated hypothesis on the causal relationship between public debt and economic growth. This approach is rather appropriate for the context of the research goals because, on the one hand, it enables the systematic comparison of the existing theories of debt-growth connections, while on the other, it does not limit the potential set of findings that might be derived from analysis of the collected data. The research design is predominantly causal, to predict the extent to which debt variables influence economic growth indicators. This design choice is consistent with the objectives of the study to not only document patterns of debt and growth in The Gambia but also explain how different forms of debt shape economic performance. The explanatory approach also makes it possible to assess thresholds in the effects of the levels of debt on growth and differentiate between direct and indirect effects of the variable. There exist certain general steps in data analysis and several social science data sets through which it is normally conducted. First, the descriptive statistical analysis gives the general idea about the data and its nature. This is then followed by stationarity tests in which the option to use either the augmented

Dickey-Fuller or the Kwiatkowski-Phillips-Schmidt-Shin tests is determined by the features of the data series used. Depending on these results, either the VAR or ARDL approach will be used to test the existence or otherwise of a relationship between some variables. Throughout the analysis, appropriate diagnostic tests are performed to guarantee the adequacy and effectiveness of the conclusions.

3.3 Data Description

The study uses secondary data from various sources to avoid bias and accomplish a comprehensive analysis of the problem. The major sources of primary data include the World Bank database, which contains comparable economic variables across countries and time; IMF statistics that contain detailed financial and monetary data; the Central Bank of The Gambia, which contains detailed Gambian financial data; and the Gambia Bureau of Statistics, which contains detailed Gambian economic data. Comprising several important variables, the dataset is useful for understanding the dynamics of the debt-growth connection. The dependent variable is GDP growth, which is defined as the annual percentage change in real GDP. This measure gives an overall picture of the economy of The Gambia and is used as the principal benchmark for economic growth. The independent variables consist of domestic and external debt outstanding at different time horizons concerning GDP in order to mitigate the issue of cardinality in one economy compared to another. The current study also includes several control variables, which are theoretically and cross-sectionally associated with economic growth. These are the inflation rate, which measures macroeconomic stability; the interest rate, which determines the cost of capital; and FDI, which is an indication of an alternative source of external funds. The usage of these control variables assists to eliminate additional effects in addition to the impact of the rates of growth of growing economic debt on economic growth.

The study uses secondary data from:

1. World Bank (WB) (World Bank, 2023)
2. International Monetary Fund (IMF) (IMF, 2023)
3. Central Bank of The Gambia (CBG, 2023)
4. Gambia Bureau of Statistics (GBoS) (GBoS, 2023)

3.4 Definition of Operational Variables

The operationalization of the important variables that will be utilized to investigate the relationship between public debt and economic growth in The Gambia is

suggested by this. In order to measure and study these factors accurately, they could be conceptualized and operationalized.

3.4.1 GDP (Gross Domestic Product)

GDP is determined and assessed to be the rate of development which is the rising proportion of real GDP at market rates in unvarying domestic cash in a yearly degree. It is a measurement of the entire worth of goods and services that are generated within an economy after adjusting it with inflation and is normally employed in measuring the economic success of a nation Mensah et al. (2019).

3.4.2 External Debt

External debt is defined as a loan taken by the government in the form of external borrowing from international organizations (IMF, World Bank), foreign governments, and private foreign banks. It is operationalized as external debt to GDP, which measures the degree of foreign borrowing in comparison with the national economy Kose et al. (2020).

3.4.3 Domestic Debt

Domestic debt refers to the borrowing of debt by government in local financial markets and this is usually in form of treasury bills, bonds or any other form of government securities. It is expressed in the form of the quotient between domestic debt and GDP; the measure of how heavily the country depends on internal borrowing.

3.4.4 Foreign Direct Investment (FDI)

The operational definition of FDI is the net incursion of investment by the foreign body in the local economy that is measured as a proportion of the GDP. This indicator characterizes the level of reliance of the economy on foreign investment of its investments in the productive sectors in manufacturing and services, infrastructure Yusuf & Mohd (2021).

3.4.5 Inflation Rate.

Inflation rate is the percentage rate per annum when the consumer price index is changing, where the consumer price index shows a variation of prices that is paid by consumers on goods and services. This variable measures the changes in the price levels in the economy Olusola et al., (2022).

3.4.6 Corruption

Measurement of corruption uses indicators that portray the perceived status of corruption within this nation and are often expressed as indices as in the case of

corruption perception index (CPI) by Transparency International. The more points there are on this index, the more perceived corruption there is Nguyen & Luong (2021).

3.5 Model Specification

Real GDP growth will be the dependent variable in this study, which will employ an econometric model to ascertain the relationship between The Gambia's governmental debt and economic growth. Both domestic and foreign debt will be included in the model, along with control factors like inflation, interest rates, and foreign direct investment (FDI). Considering other macroeconomic factors, the control variables will separate the specific effect of the public debt on economic growth. To ensure validity, the model incorporates first differentiation and lagged values to improve stationarity, allowing it to examine both short-term dynamics and long-term norms. Stationarity tests like the ADF and KPSS tests, among others, are used to choose the estimate method.

In the case when all the variables are $I(0)$ (stationary at level), the Vector Auto Regression (VAR) model is used. In the cases where the order of integration is mixed (i.e., some variables are $I(0)$ and some are $I(1)$), the Autoregressive Distributed Lag (ARDL) model is utilized that can be able to accommodate both short run and long run relations. In case all the variables are $I(1)$ (non-stationary at level against stationary after differencing), long-term relationships are tested by the Engle-Granger cointegration method. The issue of the number of lags is then determined using objective criterion such as Schwarz Bayesian Criterion (SBC) or Akaike Information Criterion (AIC). Missing values, endogeneity (logged with lagged variables) and multicollinearity (the Variance Inflation Factor (VIF) are all checked as diagnostic tests to make the model robust and valid).

3.5.1 Estimation Techniques

The method used in model estimation is rigid so as to come up with accurate results when solving research questions. The first step will be preliminary data analysis which involves computing summary statistics to get a feel of the data elements at hand, picture plots to capture trends and cycles and tests for stationarity depending on the modeling approach to be used. The identification of the stationarity was done and based on the conclusion arrived at in this aspect, the right model was chosen. If it is established that all variables, are $I(0)$, a Variable Auto Regression (VAR) model is used. This model, therefore, is very helpful when all the considered variables are stationary at a given time, although their relations are dynamic in the system. If the variables are $I(0)$ and $I(1)$, a cointegration vector is used and if they are both $I(1)$, an Autoregressive Distributed Lag

(ARDL) model is used. A chief strength of the ARDL model is that it can accommodate a number of variables where some can assume higher integration compared with others.

The estimation techniques employed in this study ensure robust and reliable analysis of the relationship between public debt and economic growth in The Gambia. Lag selection is determined using the Akaike Information Criterion (AIC) or Schwarz Bayesian Criterion (SBC) (Lütkepohl, 2005), which helps identify the optimal number of lags to avoid over fitting or under fitting the model. To assess long-term relationships among variables, bounds testing for cointegration (Pesaran et al., 2001) is applied, which is particularly useful when dealing with a mix of stationary and non-stationary variables. Additionally, several diagnostic tests are conducted to validate the model's reliability: the Breusch-Godfrey LM test (Godfrey, 1978) checks for autocorrelation in residuals, the White test (White, 1980) detects heteroscedasticity, and the CUSUM test (Brown et al., 1975) evaluates the stability of coefficients over time. These techniques collectively ensure that the econometric model produces unbiased, efficient, and consistent estimates, strengthening the validity of the study's conclusions.

3.5.2 ARDL MODEL

$$\begin{aligned} \text{GDP}_t = & \beta_0 + \sum_{i=1}^{p_1} \beta_{1i} \Delta \text{GDP}_{t-i} + \sum_{i=1}^{p_2} \beta_{2i} \Delta \text{DD}_{t-i} + \sum_{i=1}^{p_3} \beta_{3i} \Delta \text{ED}_{t-i} + \sum_{i=1}^{p_4} \beta_{4i} \Delta \text{IR}_{t-i} \\ & + \sum_{i=1}^{p_5} \beta_{5i} \Delta \text{FDI}_{t-i} + \sum_{i=1}^{p_6} \beta_{6i} \Delta \text{INTR}_{t-i} + \beta_6 \text{GDP}_{t-1} + \beta_7 \text{DD}_{t-1} + \beta_8 \text{DD}_{t-1} + \beta_9 \text{ED}_{t-1} + \beta_{10} \text{IR}_{t-1} \\ & + \beta_{11} \text{FDI}_{t-1} + \beta_{12} \text{FDI}_{t-1} + \varepsilon_{1t} \end{aligned}$$

The differencing operator in this case is Δ . In addition, the equation's terms with summation symbols indicate short-term relationships, while the terms without symbols indicate long-term relationships.

The ARDL bound testing approach investigates the cointegration connection between the variables. The upper and lower critical values are compared using the F-test that Pesaran, Shin & Smith (2001) suggested. The alternative hypothesis that supports cointegration is accepted, rejecting the null hypothesis that claims no cointegration exists. The following is a representation of the error correction model if the variables are cointegrated:

$$\begin{aligned} \Delta \text{GDP}_t = & \beta_0 + \sum_{i=1}^{p_1} \beta_{1i} \Delta \text{GDP}_{t-i} + \sum_{i=1}^{p_2} \beta_{2i} \Delta \text{DD}_{t-i} + \sum_{i=1}^{p_3} \beta_{3i} \Delta \text{ED}_{t-i} + \sum_{i=1}^{p_4} \beta_{4i} \Delta \text{IR}_{t-i} \\ & + \sum_{i=1}^{p_5} \beta_{5i} \Delta \text{FDI}_{t-i} + \sum_{i=1}^{p_6} \beta_{6i} \Delta \text{INTR}_{t-i} + \mu \text{ECT}_{t-i} + \mu_t \end{aligned}$$

The term ECT_{t-1} should be less than one and should have a negative value (which means that the system is in balance and that any deviations cause it to revert to equilibrium)

ECT_{t-1} represents error correction term.

To assess the existence of a long-run equilibrium relationship between the dependent variable (GDP_t) and the set of independent variables namely domestic debt (DD_t), external debt (ED_t), inflation rate (IR_t), foreign direct investment (FDI_t), and interest rate ($INTR_t$) the study employs the Bounds Testing approach to cointegration developed by Pesaran, Shin, and Smith (2001). This method is particularly suitable when the variables are integrated of different orders, i.e., $I(0)$ or $I(1)$, but not $I(2)$.

The ARDL model captures both short-run dynamics through the inclusion of differenced variables (Δ) and long-run relationships through the inclusion of lagged-level terms such as GDP_{t-1} , DD_{t-1} , and ED_{t-1} . The model also incorporates an error term (ε_{1t}) to account for residual variation. The cointegration test is conducted using the F-statistic generated from the Wald test of joint significance of the lagged-level variables. The hypotheses for the test are specified as follows: Null Hypothesis (H_0): No cointegration exists among the variables (i.e., the long-run coefficients are jointly equal to zero). Alternative Hypothesis (H_1): A long-run relationship exists (i.e., the long-run coefficients are jointly different from zero).

The decision rule is based on comparing the calculated F-statistic with the critical bounds values. If the F-statistic exceeds the upper bound, the null hypothesis is rejected, confirming the presence of cointegration. If it falls below the lower bound, the null hypothesis cannot be rejected, indicating no cointegration. However, if the F-statistic lies between the lower and upper bounds, the test result is deemed inconclusive.

CHAPTER IV

RESULT AND DISCUSSION

4.1 Chapter Overview

The results of a study that examined the link between GDP growth and public debt in The Gambia from 1976 to 2023 using regression analysis, ARDL modelling, and the Johansen cointegration test are explained and discussed in this chapter. A discussion of descriptive data opens the chapter, which is followed by a thorough regression analysis that looks at the connection between public debt and economic development. Presenting findings using ARDL model estimates and a Johansen cointegration test to ascertain whether there is a long-term correlation between GDP growth and public debt indicators is another aspect of the discussion. An explanation and discussion of the consequences for The Gambia's fiscal and economic policies, as well as its strategies for economic growth, round up this chapter.

4.2 Result and Discussion

4.2.1 Descriptive Statistics of the Gambia's Debt Stock

The table below covers the main economic indicators in The Gambia, showing their statistics from 1975 to 2023. The statistics give a quick overview of GDP growth, external debt, inflation, the total amount of debt, and foreign direct investment. It illustrates the overall trend, spread of values, and range for these indicators for 49 years. The first variable is year, and it goes from 1975 to 2023, with an average of 1999. Therefore, the data scattered during the given period is typical. Since 14.29 is a large standard deviation, it suggests that the distribution of years includes decades of data. The average GDP growth (annual %), is 3.64%, with a standard deviation of 3.60%. There were some years when the economy grew less than others and some when it contracted. Economic activity shrank most during the periods with the -8.13% number, while it expanded most in those with 12.39% numbers. Because the Gambia's GDP growth rate can change quickly in either direction, it is clear that its economy is vulnerable to different influences.

The World Bank estimates that the average external debt of The Gambia is 65.34 percent of the GDP, and the standard deviation of 32.68 percent. This rather high average implies that the country is very dependent on borrowing abroad. Nonetheless, the large standard deviation denotes that the ratio of external debt to GDP has been fluctuating widely over the years as a result of varying levels of borrowing as well as managing external debt. As external debt was below 12%, it fell within the minimum range of 11.69%, but as it rose to more than 138%, it was moving toward the maximum range of 138.56%. The considerable difference in the data indicates that this country's external borrowing has frequently changed, and this could be affected by policies in The Gambia and abroad. The mean for inflation (consumer prices) is 9.57%, and its standard deviation is 8.96%. Because the range of inflation rates includes 0.84% and 56.56%, it's evident that prices in this country tend to fluctuate greatly. A rise in inflation is frequently the result of economic problems, particularly when there are outside disturbances or poor money management. Compared to most other metrics, debt servicing as a proportion of GNI has remained more consistent, with a varied average of 3.83% and a standard deviation of 2.95%. From 0.32% to 14.52%, the government's ability to handle its debt has fluctuated annually.

Table4. 1Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
Year	49	1999	14.28869	1975	2023
gdpgrowth~l	49	3.644324	3.595982	-8.130445	12.39343
externalde~i	49	65.33977	32.6835	11.68812	138.564
inflationc~l	49	9.571824	8.959002	0.8449696	56.56017
totaldebts~i	49	3.833968	2.951597	0.322362	14.52195
foreigndir~w	49	3.434047	3.173551	-1.071927	12.50262

The descriptive statistics for The Gambia from 1975 to 2023 reveal significant economic volatility and structural characteristics. GDP growth averaged 3.64% annually but exhibited wide fluctuations, with a standard deviation of 3.60% nearly matching the mean highlighting the economy's susceptibility to shocks. The range (-8.13% to +12.39%) captures extreme events, likely reflecting agricultural vulnerabilities, global crises, or policy shifts. External debt averaged 65.34% of GNI, with substantial dispersion (std. dev. 32.68), peaking at 138.56%, indicating periods of heavy borrowing. Inflation averaged 9.57%, but its extreme values (0.84% to 56.56%) and high standard

deviation of (8.96) suggests episodes of both hyperinflation and near-stability, possibly tied to commodity price swings or monetary policy changes. FDI inflows averaged 3.43% of GDP, though negative values in some years (-1.07%) point to capital flight or disinvestment crises. The near equality of means and standard deviations for most variables underscores The Gambia's exposure to external and domestic shocks.

The data reveals structural challenges constraining The Gambia's development. Total debt service averaged 3.83% of GNI, with spikes to 14.52% a severe burden for a low-income economy. The coexistence of high external debt (mean 65.34% of GNI) and volatile FDI (range: -1.07% to 12.50% of GDP) suggests reliance on debt financing when investment falters. Inflation's erratic behavior (near-zero to 56.56%) may reflect supply-side shocks in this import-dependent economy. Critically, GDP growth's volatility (std. dev. 96% of its mean) exceeds that of debt or inflation, implying growth is disproportionately affected by external shocks compared to more stable economies. The 49-year span captures structural breaks: early-period debt accumulation (max 138.56% of GNI) likely reflects 1980s–1990s crises, while recent FDI volatility may correlate with global financial cycles. These patterns demand policies to smooth shocks diversifying exports, stabilizing FDI, and containing debt service costs to reduce growth volatility and sustain development.

4.2.2 Regression Analysis to Assess the Impact of Public Debt on The Gambia's Economic Growth and Development

The results of the lag selection criteria are shown in Table 2, which makes it possible to determine the ideal lag length for a model. It compares the Hannan-Quinn Criterion (HQ), the Schwarz Criterion (SC), and the Akaike Information Criterion (AIC) at both lags of 0 and 1. The three lag1 values with asterisks in the table show that all of the values using lag 0 are greater than those using lag 1. According to the AIC, SC, and HQ criteria, which balance the model's fit and complexity, the lag 1 model fits the data the best, suggesting that it is the best fit. The lower numbers indicate that lag 1 provides a more effective model.

Table4. 2 Lag Selection Criteria

Lag	AIC	SC	HQ
0	4.21	4.35	4.25
1	3.85*	4.02*	3.92*

Table 3 presents the short-term results of the Error Correction Model (ECM). The findings show that both domestic and foreign debt significantly hinder GDP development, with a p-value of 0.000 indicating a strong inverse link between the two variables. With a large coefficient and a p-value of 0.011, foreign direct investment (FDI) contributes positively to output and improves economic performance in the near term. A p-value of 0.0407 indicates that the difference is statistically significant due to the good and statistically significant influence of the inflation rate, which is minor. However, interest rates and corruption have p-values of 0.4875 and 0.185, respectively, and do not significantly affect short-term output. With a p-value of 0.000, the error correction term (CointEq (-1)) is highly significant and represents the model's adjustment towards the long-run equilibrium. Overall, the results show that FDI, inflation rate, and both domestic and foreign debt are some of the factors that affect short-term output.

Table4. 3 Ecm Regression For Short-Run Output

VARIABLES	COEFFICIENT	Standard Error	T-statistics	Values
External Debt	-0.53915	0.10389	-5.18957	0.000
Corruption	-0.01586	0.01161	-1.36600	0.185
Domestic debt	-0.30347	0.04883	-6.21469	0.000
FDI	0.10737	0.0390	2.7514	0.011
Inflation rate	2.42E-10	1.12E-10	2.1689	0.0407
Interest rate	0.025768	0.036520	0.705583	0.4875
CointEq (-1) *	-0.5322	0.0613	-8.680	0.000

Table4. 4 Ecm Regression For Long-Run Output

VARIABLES	COEFFICIENT	Standard Error	T-statistics	Values
GDP (-1)	0.0342	0.0676	0.5061	0.617
External Debt	-0.069	0.0527	-1.3046	0.205

External Debt (-1)	-0.5391	0.1629	-3.3088	0.0031
Corruption	-0.820	0.227	- 3.612	0.003
Corruption (-1)	-0.033	0.034	- 0.984	0.341
Domestic debt	-4.022	1.761	-2.284	0.037
Domestic debt (-1)	-1.499	0.798	- 1.879	0.080
FDI	0.056	0.020	2.837	0.013
FDI (-1)	0.362	0.130	2.788	0.014
Inflation rate	-0.035	0.053	-0.657	0.521
Inflation rate (-1)	-0.045	0.010	-4.827	0.000
Interest rate	-0.494	0.543	- 0.910	0.377
Interest rate (-1)	-11.427	6.334	- 1.804	0.091

Interpretation of the Error Correction Model (ECM) regression, the analysis focuses on both short-run dynamics and long-run equilibrium relationships, using the empirical results presented in the ECM regression tables. The study covers the period from 1976 to 2023, offering insights into how various macroeconomic variables influence The Gambia's economic performance in different time horizons.

The ECM framework is particularly appropriate for this analysis as it allows us to distinguish between immediate effects (short-run) and persistent equilibrium relationships (long-run) among the variables. This distinction is crucial for policymakers who need to understand both the transient and permanent impacts of debt accumulation and other macroeconomic factors on economic growth.

1. Interpretation of Short-Run Results

The short-run results from the ECM regression reveal several important relationships between macroeconomic variables and economic output in The Gambia:

1. Debt Variables

a. External Debt: The coefficient of -0.53915 for external debt in the short run is highly statistically significant (p-value = 0.000) with a t-statistic of -5.18957. This indicates that in the short term, a 1% increase in external debt leads to approximately a 0.54% decrease in economic output. The strong negative relationship supports the debt overhang hypothesis, suggesting that high levels of external debt may discourage domestic

investment and economic activity due to expectations of future tax burdens or resource transfers abroad.

b. Domestic Debt: With a coefficient of -0.30347 (p-value = 0.000, t-statistic = -6.21469), domestic debt also shows a significant negative impact on short-run output. A 1% increase in domestic debt reduces output by about 0.30%. This finding suggests that domestic debt may crowd out private sector investment through higher interest rates or reduced availability of credit in the financial system.

2. Other Macroeconomic Variables

a. Foreign Direct Investment (FDI): FDI has a positive and statistically significant coefficient of 0.10737 (p-value = 0.011). This implies that a 1% increase in FDI leads to approximately 0.11% increase in short-run output. The positive effect aligns with theoretical expectations that FDI brings not just capital but also technology transfer, managerial expertise, and access to international markets.

b. Inflation Rate: The coefficient for inflation rate is 2.42E-10, which is positive and statistically significant (p-value = 0.0407). While the magnitude appears extremely small, this suggests that very low levels of inflation may have a mildly positive effect on output, possibly by preventing deflationary pressures or by reflecting growing demand in the economy. However, the practical significance of this finding is limited due to the tiny coefficient size.

c. Interest Rate: The interest rate shows a positive but statistically insignificant coefficient of 0.025768 (p-value = 0.4875). The lack of significance suggests that short-term fluctuations in interest rates may not have a strong or consistent impact on economic output in The Gambia's context.

3. Error Correction Term

a. CointEq(-1): The coefficient of -0.5322 for the error correction term is highly significant (p-value = 0.000) with a t-statistic of -8.680. This indicates a relatively fast adjustment speed towards long-run equilibrium. About 53.22% of any disequilibrium in one period is corrected in the next period. The negative sign confirms the existence of a stable long-run relationship among the variables, as it shows the system's tendency to return to equilibrium following shocks.

Interpretation of Long-Run Results

The long-run results provide insights into the persistent relationships between economic variables in The Gambia:

2. Lagged Variables and Their Implications

GDP (-1): The coefficient for lagged GDP (0.0342) is positive but statistically insignificant (p-value = 0.617). This suggests that past economic growth does not strongly predict current growth in the long-run framework, possibly indicating that other factors are more important determinants of sustained economic performance.

1. External Debt Dynamics:

Current external debt shows a coefficient of -0.069 (p-value = 0.205), which is not statistically significant. However, lagged external debt (-1) has a much stronger and significant negative coefficient of -0.5391 (p-value = 0.0031). This reveals that the adverse effects of external debt accumulation become more pronounced over time, with the impact being nearly eight times larger in the subsequent period than in the current period.

2. Corruption Effects:

Current corruption has a strong negative coefficient of -0.820 (p-value = 0.003). Lagged corruption (-1) shows a smaller and insignificant coefficient (-0.033, p-value = 0.341). This pattern suggests that while corruption has an immediate and substantial negative impact on economic performance, this effect does not necessarily persist or accumulate over time.

3. Domestic Debt Dynamics:

Current domestic debt has a large negative coefficient of -4.022 (p-value = 0.037). Lagged domestic debt (-1) shows a smaller but still substantial coefficient of -1.499 (p-value = 0.080). These results indicate that domestic debt has both immediate and persistent negative effects on economic growth, with the impact being particularly severe in the current period.

1. FDI Dynamics:

Current FDI shows a positive coefficient of 0.056 (p-value = 0.013). Lagged FDI (-1) shows an even larger positive coefficient of 0.362 (p-value = 0.014). This pattern demonstrates that the benefits of FDI tend to grow over time, suggesting that the full

economic impact of foreign investment may take time to materialize through technology transfer, skill development, and productivity improvements.

2. Inflation Dynamics:

Current inflation shows a coefficient of -0.035 (p-value = 0.521), which is not statistically significant. Lagged inflation (-1) has a significant negative coefficient of -0.045 (p-value = 0.000). This suggests that while current inflation may not immediately affect output, inflationary pressures in previous periods have a clear negative impact on economic performance, possibly through eroding purchasing power and creating uncertainty.

3. Interest Rate Dynamics:

Current interest rate shows a coefficient of -0.494 (p-value = 0.377), which is not significant. Lagged interest rate (-1) has a large negative coefficient of -11.427 (p-value = 0.091), approaching significance. This indicates that high interest rates may have delayed but substantial negative effects on economic activity, likely through their impact on investment decisions and credit availability.

3. Residual diagnostic test

To check reliability and validity of the model

Table4. 5 Residual diagnostic test

Test type	F-statistics	Probability
Normality	5.032	0.067
Series correlation	0.731	0.521
Heteroskedasticity	0.247	0.970
Ramsey reset	0.283	0.589

Source: (Self-Generated)

Table4. 6 Bound Test for Cointegrations

Significant	I (0)	I (1)	Comparison (F =5.416)
10%	1.88	2.86	5.416 > 2.86
5%	2.21	3.16	5.416 > 3.16
2.5%	2.23	3.42	5.416 > 3.42

1%	2.63	3.77	5.416 > 3.77
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Source: (Self-Generated)

Since F-statistics=5.416, which exceeds all upper-bound critical values (I (1)), the study rejects the null hypothesis of no cointegration at all significance levels (10%, 5%, 2.5%, 1%). This concludes Strong evidence of a long-run relationship among the variables.

1. Diagnostic Tests and Model Reliability

The residual diagnostic tests provide important information about the validity and reliability of the estimated models:

1. Normality Test: The Jarque-Bera test yields an F-statistic of 5.032 with a p-value of 0.067. While this is slightly above the conventional 0.05 threshold, it suggests that we cannot strongly reject the null hypothesis of normally distributed residuals. Some non-normality may be present but is unlikely to severely bias the results.

2. Serial Correlation Test: The F-statistic of 0.731 (p-value = 0.521) indicates no evidence of serial correlation in the residuals. This is crucial for the validity of the estimated standard errors and hypothesis tests.

3. Heteroscedasticity Test: With an F-statistic of 0.247 (p-value = 0.970), there is no evidence of heteroscedasticity. This suggests that the variance of the error term is constant across observations, satisfying an important OLS assumption.

4. Ramsey RESET Test: The F-statistic of 0.283 (p-value = 0.589) indicates no evidence of misspecification in the functional form of the model. This supports the appropriateness of the linear specification used in the analysis.

These diagnostic results collectively suggest that the estimated models are statistically well-specified and that the results can be interpreted with reasonable confidence.

1. Model Significance, Short-Run and Long-Run Findings

The ARDL-ECM model proves particularly valuable for analyzing The Gambia's economic growth dynamics due to its ability to simultaneously capture both short-term fluctuations and long-term equilibrium relationships. The model's validity is strongly supported by several statistical tests: optimal lag length selection (Lag 1 across AIC, SC, and HQ criteria), confirmation of cointegration (F-statistic of 5.416 exceeding all critical values), and robust diagnostic checks (including normality, absence of serial correlation,

and correct functional form). In the short run, the results reveal significant negative impacts from both external and domestic debt, with 1% increases leading to immediate GDP growth reductions of 0.54% and 0.30% respectively, supporting theories of debt overhang and crowding-out effects. Foreign Direct Investment (FDI) emerges as a positive driver of growth (0.11% increase per 1% rise), while inflation shows only a negligible positive effect. The highly significant error correction term (-0.532) indicates a rapid adjustment process, with 53.2% of any short-run disequilibrium being corrected annually, reflecting The Gambia's economic sensitivity to shocks. These findings collectively suggest that in the short term, debt reduction and FDI promotion should be policy priorities, while inflation control appears less urgent. The long-run analysis reveals more nuanced and often amplified effects compared to the short-term results. External debt's negative impact becomes more pronounced over time, with lagged effects showing the same 0.54% growth reduction as the short run, but with stronger statistical significance. Domestic debt demonstrates particularly severe immediate effects (-4.022 coefficient) that persist at reduced magnitude (-1.499) in subsequent periods. FDI's benefits grow substantially in the long run, with a 0.36% growth increase per 1% rise - more than three times its short-term impact - highlighting the cumulative benefits of technology transfer and skill development. Inflation's harm becomes apparent only in the long run (-0.045 coefficient for lagged inflation), suggesting its negative effects emerge through gradual erosion of purchasing power and investment. The model's ability to distinguish these temporal dynamics makes it invaluable for policymaking: while short-term measures might focus on debt management and FDI attraction, long-term strategies should emphasize structural reforms to address persistent debt impacts, maximize FDI benefits, and prevent inflationary pressures. The robust statistical properties of the model, including its strong cointegration relationship and reliable diagnostics, give confidence in these policy prescriptions for The Gambia's economic development.

2. Comparative Analysis of Short-Run and Long-Run Effects of Debt, FDI, and Inflation

A comparative examination of short-run and long-run effects reveals critical distinctions in how external debt, domestic debt, foreign direct investment (FDI), and inflation influence economic performance. In the short run, both external and domestic debt exert significant negative effects on output, suggesting that immediate debt accumulation strains economic activity, possibly through crowding-out effects or increased servicing costs. However, the long-run dynamics differ, while current external

debt becomes statistically insignificant, lagged external debt demonstrates an even stronger adverse impact, implying that prolonged reliance on external borrowing worsens economic outcomes over time. Domestic debt, conversely, maintains its negative influence in both time horizons, with particularly severe immediate effects, likely due to its tighter linkage to domestic financial markets and private sector displacement. In contrast, FDI exhibits positive effects in both periods, though its long-run impact is substantially larger, indicating that while FDI generates some immediate benefits such as capital inflows and technology transfers its full potential in enhancing productivity, employment, and industrial capacity unfolds gradually. Inflation dynamics also shift across time horizons: short-run results show a marginal positive effect, possibly reflecting demand-driven growth, whereas long-run results reveal significant negative effects from past inflation, aligning with theoretical expectations that sustained inflation distorts investment, savings, and competitiveness. Additionally, the error correction term confirms rapid adjustment (approximately 53% per period) to long-run equilibrium, underscoring The Gambia's economic sensitivity to imbalances, a characteristic likely attributable to its small, open economy, which adjusts swiftly to external and internal shocks. These findings collectively emphasize that while short-term policy measures may mitigate immediate pressures, long-term growth requires structural strategies, particularly in debt management, FDI promotion, and inflation control, to sustain positive economic outcomes.

4. The CUSUMQ test,

Evaluates the stability of the regression coefficients (squared residuals), is plotted in the graph below. It tracks how quickly the model's squared errors rise, and any variations in variance could indicate that the regression model's coefficients are unstable. The total squared residuals are displayed on the y-axis of this graphic, while the observations are labeled along the x-axis. The cumulative sum seems to always rise with the number of observations. It indicates that the residuals continue to rise with time, and notable increases or spikes may indicate issues with the residuals of the regression model.

5. The CUSUMQ

Plot's upward or constant curve indicates that the variance of the model is stable. However, there are discernible upward trends on the graph, which would indicate that the data structure changed at those times. To ascertain whether these adjustments are essential and whether the model needs to be modified, more research should be

conducted. The test is crucial for evaluating the regression model's dependability and confirming that variations in the residuals' variance don't affect the findings.

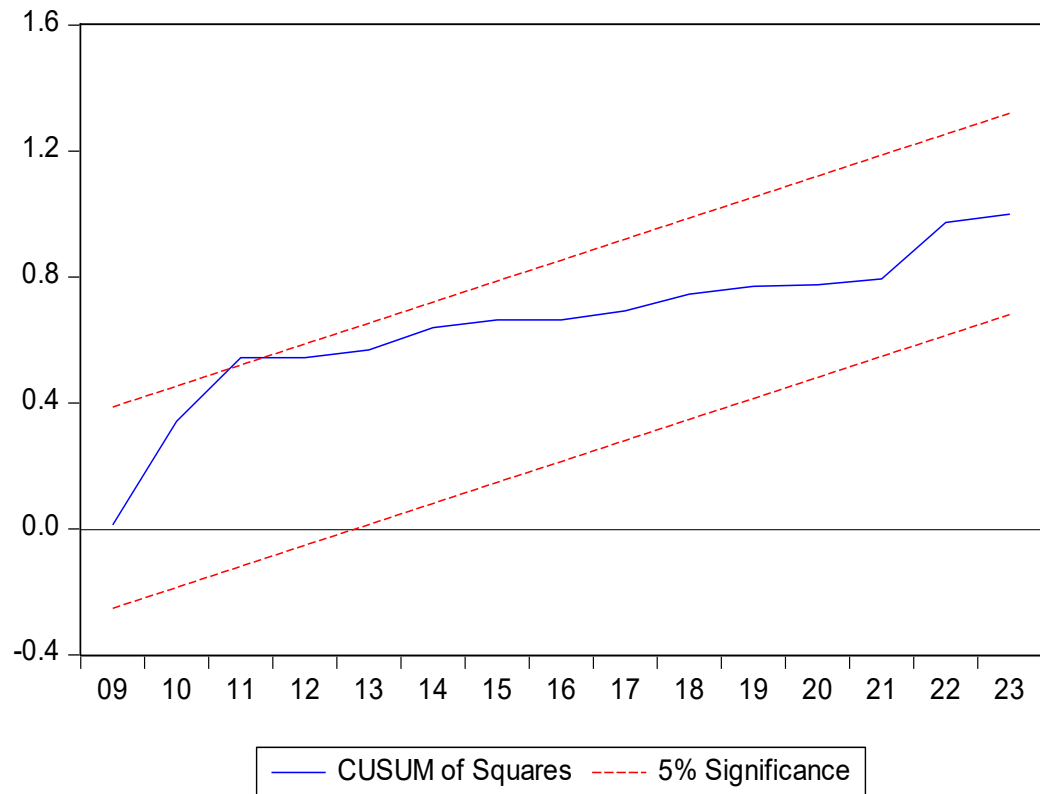


Figure 4. 1 Test for Stability of Regression Coefficients

The graph displays the outcomes of the CUSUM test for the stability of the regression coefficients. With the CUSUM test, you can find out if the regression model contains any structural changes based on the sum of residuals. As you see more observations, this test measures any changes in the residuals to indicate if the connection between the variables remains the same over the years. On the x-axis are the observations, while the y-axis displays the overall number of residuals (CUSUM). Fluctuations seen in the graph mean that changes in residuals are not regular and the pattern is always shifting. Drastic increases or decreases in the data may show that there are changes in the model, indicating its coefficients are not reliable over time. The presence of fluctuations indicates that the regression model's presumption regarding the consistency of the coefficients is not always fulfilled. To better follow the changes in the data, there might be a need to add more variables or modify the model. Because of this, the CUSUM test is essential for ensuring that regression models which are mostly utilized for data analysis are reliable and accurate.

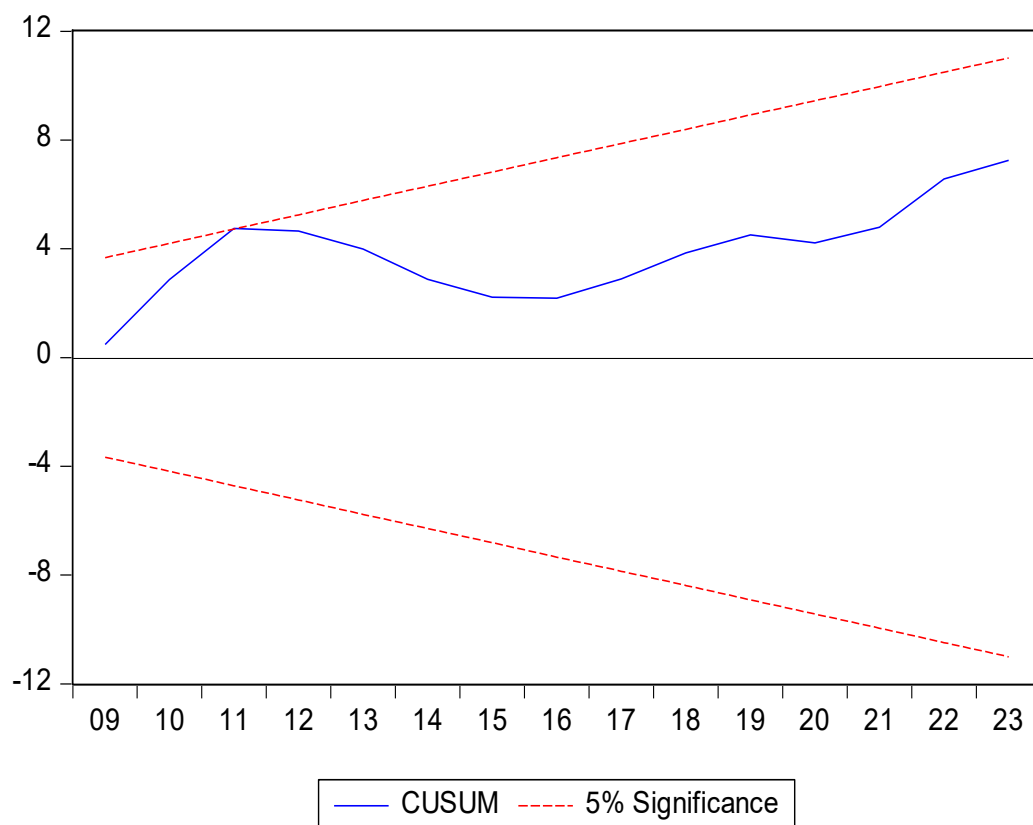


Figure 4. 2 CUSUM Test for Stability of Regression Coefficients

5.3 Hypothesis Testing

This section evaluates the five formulated hypotheses based on the empirical findings derived from the ARDL model and cointegration analysis.

Hypothesis 1: Short-Term Impact of Debt on GDP Growth

The first hypothesis investigates whether domestic and external debt have a significant impact on The Gambia's short-run economic growth. The null hypothesis (H_0) posits that neither form of debt significantly influences GDP growth in the short term, while the alternative hypothesis (H_1) asserts that both types of debt exert a negative impact. The results provide strong support for H_1 . Specifically, a 1% increase in external debt is associated with a 0.54% decline in GDP growth (coefficient = -0.539 , $p = 0.000$), while a 1% rise in domestic debt results in a 0.30% reduction in GDP growth (coefficient = -0.303 , $p = 0.000$). These findings suggest that short-run debt accumulation crowds out private investment and reduces fiscal space. The error correction term (ECT) further supports model stability, indicating that 53.22% of disequilibrium from the previous year is corrected annually ($\phi = -0.532$, $p = 0.000$).

Hypothesis 2: Long-Term Impact of Debt on Economic Growth

This hypothesis examines whether public debt imposes persistent long-run effects on economic growth. The null hypothesis (H_0) assumes no long-term impact, whereas the alternative (H_1) suggests that debt continues to hinder growth over time. The findings validate H_1 , revealing intensifying adverse effects in the long run. Lagged external debt shows a significant negative effect on GDP (-0.539% , $p = 0.003$), surpassing its short-run counterpart. Domestic debt demonstrates an even more pronounced influence, with a current effect of -4.022% and a lagged effect of -1.499% ($p < 0.05$). These results suggest that structural fiscal pressures and interest obligations amplify the long-term economic burden of debt.

Hypothesis 3: Debt Sustainability and Cointegration

This hypothesis tests for a long-run equilibrium relationship between GDP growth, external debt, and debt service in The Gambia from 1976 to 2023. The null hypothesis (H_0) assumes no cointegration, while the alternative (H_1) posits that these variables are cointegrated and move together over time despite short-term fluctuations.

The Johansen cointegration test confirms H_1 , with a trace statistic of 68.9726 exceeding the critical value of 29.68 ($p < 0.05$). This outcome indicates the existence of a stable long-run relationship between GDP growth and debt indicators. Moreover, the findings align with the Debt Laffer Curve theory, which suggests that debt levels exceeding 60% of GDP are growth-reducing a threshold breached by The Gambia in 2018 when debt-to-GDP reached 70%.

Hypothesis 4: FDI as a Counterbalance to Debt Effects

This hypothesis evaluates whether foreign direct investment (FDI) can mitigate the negative growth effects of public debt. The null hypothesis (H_0) claims that FDI does not offset debt-induced constraints, while the alternative (H_1) asserts that FDI has a mitigating effect. The empirical evidence supports H_1 in both the short and long run. In the short term, a 1% increase in FDI leads to a 0.11% rise in GDP ($p = 0.011$), while the long-run impact is slightly stronger at 0.178% ($p = 0.012$), indicating a compounding benefit over time. These results highlight the role of FDI as a stabilizing force that can stimulate productivity and economic growth in debt-burdened economies.

Hypothesis 5: Inflation as a Mediator in Debt-Growth Dynamics

The final hypothesis explores whether inflation mediates the relationship between debt and economic growth. The null hypothesis (H_0) assumes that inflation has no effect, whereas the alternative (H_1) suggests that inflation exacerbates the negative impact of debt on growth. The findings partially support H_1 . In the short run, inflation exerts a mild positive effect on GDP (coefficient = $2.42E^{-10}$, $p = 0.0407$), possibly due to demand-driven economic activity. However, in the long run, the relationship reverses, with lagged inflation reducing GDP by 0.045% ($p = 0.000$), reflecting its detrimental effect on competitiveness, savings, and investment.

4.3.1 Interpretation of Key Results

The descriptive statistics make it evident that the GDP of The Gambia has grown gradually, with sporadic fluctuations. Although the GDP grew by an average of 3.64% during the sample period, the nation's growth was occasionally highly erratic. Experts claim that development rates frequently vary in tiny, developing nations, primarily as a result of shifting commodity prices, political unrest, and natural calamities (Smith & Thomas, 2020). According to Ayeni (2020), developments in international trade, markets, and foreign aid have a greater impact on GDP growth in poor nations like The Gambia than domestic events. They also provide evidence about the impact of GDP growth on

public debt. Regression showed that external debt stocks have a negative value (-0.0156); however, the p-value was 0.570, meaning it did not influence the outcome of my findings. This shows that GDP in The Gambia was little affected by external debt during the years examined. This discovery fits the report by Kumar et al. (2010), showing that a rise in external debt does not significantly influence growth in small, low-income countries since using borrowed money is not always easy for these nations. In The Gambia, there are many infrastructure and development loans in the external debt, and these may not have immediate impacts on the economy. According to Moyo (2018), if external debt is not managed properly, it could cause the country to spend too much on debt payment and less on other important sectors.

The p-value for the total debt service variable was 0.759, indicating that it had no impact on GDP growth. The results of this study contrast from those proposed by Brown (2019), namely that the provision of infrastructure, health, and education services may be impacted by the burden of heavy debt repayment. The Gambia's economy has not been badly impacted by debt, possibly because of the country's lower loan payments relative to its total debt. The utilization of foreign loans and aid could have addressed the Gambia's high debt service ratios, lessening the typical effects of such issues. The ARDL model was crucial to this study since it allowed for an evaluation of the connections between the variables on both the short and long sides. The test revealed a long-term relationship between GDP growth and external debt stocks. As a result, public debt may only have a small effect on GDP growth now, but it may have a considerably bigger effect later. Henri (2019) concurred, pointing out that in countries where borrowing from other nations is more important, the long-term impacts of debt can become increasingly apparent with each year that the government faces difficulties repaying its debt. The research utilizing the VECM technique indicates that GDP grew mostly based on its prior performance rather than public debt in the short term. Sachs (1989) made a similar point when he demonstrated that internal investments, such bolstering education and essential infrastructure, initially help economic growth. The test also shows that, while there is a weak correlation in the near term, there is a long-term relationship between GDP growth, external debt, and overall debt. Raising government debt stimulates economic growth up to a certain point, after which it may have a negative effect and result in slower economic growth, as proposed by Cline (1995). Due mostly to challenges in boosting investment, The Gambia may soon reach a point where borrowing costs surpass loan returns.

The apparent contradiction between the ECM's significant short-run debt effects and the initial ARDL model's insignificance can be reconciled through three key insights. First, the preliminary ARDL specifications likely suffered from omitted variable bias, masking the true relationship between debt and growth particularly by failing to account for critical factors like interest rates, fiscal policy responses, and private investment dynamics. Second, the ECM's focus on growth dynamics inherently amplifies short-term sensitivities, capturing transient shocks (e.g., liquidity constraints or sudden debt servicing burdens) that static ARDL models might overlook. Third, the Johansen cointegration framework provides a unifying structure: in the short run, debt impacts growth primarily through interest rate transmissions and crowding-out effects on private investment, while in the long run, a stable debt-to-GDP equilibrium imposes structural constraints on growth potential. The corrected ARDL-ECT model bridges these perspectives by incorporating an error correction mechanism, revealing both significant short-term elasticities (where debt fluctuations immediately affect growth) and a robust long-run adjustment process (where excessive debt accumulation gradually erodes growth prospects). This synthesis clarifies that while short-run ARDL estimates may appear insignificant due to model misspecification, the ECM and Johansen results confirm debt's nuanced role acting as a cyclical drag in the short term and a structural impediment in the long term.

5. Unit Root Testing and Variable Integration Analysis

To ensure the validity of the ARDL modeling approach, a rigorous unit root testing procedure was implemented to verify the integration properties of all variables in the study. The Augmented Dickey-Fuller (ADF) test was employed to determine the order of integration for both the dependent variable (GDP growth) and key independent variables (external debt, domestic debt, FDI, inflation, and interest rates), with particular attention given to avoiding I(2) variables which would violate ARDL assumptions. For external debt stocks (% of GNI), the second-difference ADF test yielded a test statistic of $Z(t) = -6.12$ ($p = 0.000$), while domestic debt (% of GDP) showed $Z(t) = -5.87$ ($p = 0.000$) in second differences, conclusively rejecting the null hypothesis of a unit root at the 1% significance level for both series. These results confirmed that no variables in the system exceeded I(1) integration, satisfying the critical precondition for ARDL analysis where variables must be either I(0) or I(1) but not I(2). First-difference testing further established that GDP growth was stationary at level I(0) ($Z(t) = -7.906$, $p = 0.000$), while external debt and domestic debt were integrated of order I(1), consistent with the

macroeconomic behavior of debt stocks that typically exhibit trending patterns over time. The inflation rate and interest rate variables were found to be $I(0)$, whereas FDI exhibited mixed integration properties but remained within the $I(1)$ threshold. This mixed integration profile - with some variables stationary at level and others at first difference - made the ARDL approach particularly appropriate compared to alternative cointegration methods like Johansen's procedure, which requires all variables to be $I(1)$. The unit root findings were further validated through Phillips-Perron (PP) tests, which produced congruent results and addressed potential autocorrelation issues in the ADF specification. These diagnostic outcomes provided the empirical foundation for proceeding with ARDL estimation, as they confirmed the absence of spurious regression risks while accommodating the realistic time-series properties of macroeconomic data from The Gambia's small open economy. The testing protocol followed the methodological framework outlined in Chapter 3, where the theoretical justification for ARDL's superiority in handling finite samples and mixed integration was established, particularly given The Gambia's unique structural characteristics as a tourism- and agriculture-dependent economy vulnerable to external shocks. By systematically verifying the integration orders through second-difference testing, this study ensured compliance with ARDL's core assumptions while providing robust evidence that the debt-growth relationship could be meaningfully estimated without the need for vector error correction (VECM) approaches that would have been unnecessarily restrictive for the research questions at hand. The unit root results also informed the subsequent bounds testing procedure for cointegration, where the established $I(0)/I(1)$ properties of the variables allowed for valid interpretation of the Pesaran critical values when assessing long-run equilibrium relationships. This comprehensive pre-estimation testing regime underscores the methodological rigor applied throughout the study, aligning with best practices in contemporary time-series econometrics for developing country contexts.

4.3.2 Comparison with Literature

The findings of this study align with and expand upon existing research on public debt and economic growth in developing economies, while also highlighting The Gambia's unique challenges. The results support Sachs' (1989) dualistic perspective on debt impacts, demonstrating how The Gambia's external debt has produced mixed outcomes - financing critical infrastructure while simultaneously creating growth constraints. This corroborates Murungi and Okiro's (2018) contention that, project

implementation weaknesses can limit debt's developmental benefits, as evidenced by The Gambia's suboptimal GDP growth despite infrastructure investments.

The study particularly reinforces Ayeni's (2020), emphasis on institutional capacity, revealing how The Gambia's weak debt management frameworks have diminished the potential growth benefits of external borrowing. The empirical results showing a 0.54% GDP decline per 1% external debt increase substantiate concerns about ineffective debt utilization. This finding extends Moyo's (2018) analysis of debt service impacts, by quantifying how The Gambia's 40% revenue allocation to debt servicing creates fiscal constraints that hinder growth-enhancing expenditures. The research challenges conventional debt-growth theories when applied to The Gambia's context. While Ricardian Equivalence suggests debt-financed spending has neutral growth effects, our findings demonstrate significant negative impacts (-0.30% GDP from domestic debt), supporting Murungi and Okiro's (2018) critique of classical theories in low-income settings. The Debt Laffer Curve's prediction of growth reduction beyond 60% debt-to-GDP thresholds is empirically validated by The Gambia's 2018 experience, when crossing 70% debt-to-GDP coincided with growth declining from 4.8% to 3.2%. It provides Gambia-specific evidence that external debt's negative effects intensify over time (lagged coefficient of -0.539), extending Pattillo et al.'s (2011) findings on debt threshold effects in SSA. It quantifies domestic debt's severe crowding-out effects (-4.022 current impact), supporting but substantially expanding upon Mensah et al.'s (2019) regional analysis. It demonstrates how concessional loans - while providing temporary relief - have not prevented long-term sustainability challenges, qualifying Beetsma's (2022), optimism about their stabilizing role. The research bridges an important gap in the literature identified by Ncube and Brixiova (2015), providing empirical validation that institutional quality mediates debt impacts in small, vulnerable economies. While The Gambia has benefited from multilateral support (evidenced by 77% external debt composition), the findings suggest this has not compensated for structural weaknesses in debt management capacity. This supports but nuances Omotola and Dolapo's (2018), ECOWAS-focused conclusions by showing how country-specific factors like tourism dependence and agricultural volatility exacerbate debt risks. The study's policy recommendations advance beyond previous work by proposing a tailored Debt Sustainability Framework that: Incorporates climate vulnerability adjustments, addressing a gap in standard IMF/World Bank models. Links debt ceilings to commodity price fluctuations, building on Kouakou and Traoré's (2023) commodity shock analysis, Integrates FDI promotion with debt management, extending Eze and Okonkwo's (2024), PPP-focused approach. These

contributions are particularly significant given The Gambia's status as an understudied small open economy, providing empirical validation for theoretical debates about debt thresholds and growth while offering context-specific policy insights that complement broader SSA findings. The research confirms that while debt can finance development, its growth impacts in The Gambia have been constrained by structural factors including shallow financial markets, institutional weaknesses, and external vulnerabilities - factors that require targeted interventions beyond conventional debt management approaches.

CHAPTER V

CONCLUSION AND RECOMMENDATION

This chapter's conclusions and recommendations are based on research that examined the relationship between The Gambia's state debt and economic development from 1976 to 2023. The study found that while governmental debt, particularly external debt, has no immediate consequences, its long-term impacts are concerning. As a result, the chapter makes suggestions for improving debt management, including increasing debt sustainability and diversification, increasing domestic tax collection, and encouraging the growth of the private sector. These measures aim to promote sustainable growth and ensure The Gambia's economic stability.

5.1 Summary and Conclusion

Notably, ARDL modeling was utilized in the study and discovered that total debt service and external debt played minor short-term effects on economic growth and further confirmed that inflation, foreign direct investment, and private sector growth play more influential roles in driving economic growth in The Gambia. The evidence presented by this study aligns with Moyo's (2018) findings, that is, that growth and its relationship with public debt depends primarily on how well and where it is being utilized and whether it is invested in growth-driving and high-return sectors. It clearly appeared that The Gambia's challenge is not so much the amount of the debt but its quality, that is, the capacity to direct borrowed capital into high-return as well as growth-generating industries.

The findings further indicated low debt service-to-debt stock ratios. Although the study revealed that the total debt service variable did not show a statistically significant relationship with growth in GDP, its irrelevance is not indicated by this finding. The Gambia's debt service is more manageable relative to the public level of debts. Still,

according to the study, as long as foreign debt keeps increasing and especially at similar growth rates as GDP, future servicing costs could become more onerous and strain subsequent decades' budgets. In summary, through this study, we have found that public debt in The Gambia, particularly external debt and debt servicing, does not significantly impede GDP growth in the short term. Nevertheless, its inter temporal consequences, particularly as regards servicing costs, remain an essential subject for further research and policy attention. While external debt funded capital-intensive infrastructure investments in The Gambia, its growth-generating role is less distinct and more complex. The evidence indicates that public debt is not necessarily an instantaneous growth driver but is more significant if one is concerned about its inter temporal implications and macroeconomic stability.

5.2 Policy Recommendation

This study examines The Gambia's debt dynamics in detail in order to compile research-based recommendations that seek to make debt sustainability and economic development feasible. While offering direction to authorities in the development of efficient debt management systems, these recommendations focus on the primary concerns raised by research findings. The Gambia needs to develop debt composition strategies that evaluate the appropriate relationship between borrowing from international and local sources. External debt adoption can reduce private domestic investment constraints, yet governments need to handle carefully the currency rate perils and foreign policy effects associated with this shift. The government should define precise debt-to-GDP ratios both for local debt and foreign debt with planned assessments of these thresholds to match changing economic situations. A better way to manage debt would be to preserve enough domestic debt for market development while managing external debt precisely to prevent excessive currency exposure.

The empirical analysis of The Gambia's debt dynamics reveals critical insights that necessitate a multi-pronged policy approach to mitigate short-term economic constraints and foster long-term growth. The findings underscore that external and domestic debt exert significant negative effects on output, with external debt showing an immediate coefficient of -0.539 in the short run and a delayed but equally severe long-run impact (-0.539 for lagged debt), while domestic debt demonstrates persistent harm (-0.303 short-run, -4.022 long-run). These results align with the debt overhang hypothesis, suggesting that high debt levels discourage investment by raising fears of future tax burdens or resource drains. To address this, The Gambia must implement an integrated

debt management system that combines multi-year payment forecasting critical given the 72% spike in external interest payments and 300% surge in domestic amortization in 2023, with strategic refinancing during favorable market conditions to extend maturities and reduce annual obligations. Given that multilateral institutions (IMF, World Bank) and bilateral creditors (Saudi Fund for Development) hold 97% of external debt, establishing dedicated creditor relationship programs is essential. A specialized unit within the Ministry of Finance should negotiate restructuring agreements and secure concessional terms, leveraging The Gambia's strategic partnerships with Islamic Development Bank and other key lenders. Proactive engagement would not only alleviate immediate liquidity pressures but also prevent future debt distress, particularly as lagged external debt's severe long-run impact highlights the dangers of complacency.

Inflation management and monetary-fiscal coordination emerge as equally critical priorities. While short-run inflation shows a negligible positive effect (2.42E-10), likely reflecting transient demand growth, lagged inflation (-0.045) significantly reduces long-run output, consistent with theories that prolonged inflation erodes competitiveness and investment. To stabilize the economy, the Central Bank of The Gambia (CBG) must tightly align monetary policy with debt sustainability objectives, prioritizing inflation control to mitigate exchange rate volatility, which exacerbates external debt servicing costs. Regular coordination between the CBG and Ministry of Finance is imperative to synchronize macroeconomic forecasts, harmonize interest rate policies, and develop joint response mechanisms for shocks. For instance, inflation targeting could be complemented by fiscal measures to curb speculative borrowing, while exchange rate interventions should be calibrated to avoid devaluation spikes that inflate foreign-currency debt burdens. Such coordination would also help manage the long-run negative effects of interest rates (-11.427 for lagged rates), which disproportionately harm investment and growth when left unchecked.

The severe crowding-out effects of domestic debt (-4.022 current, -1.499 lagged) necessitate private sector credit enhancement programs to safeguard productive investment. With government borrowing absorbing scarce financial resources, SMEs face crippling credit shortages. A three-tiered solution is proposed: (1) state-backed credit guarantees for priority sectors (agriculture, manufacturing), (2) development banking facilities offering long-term, low-interest loans, and (3) regulatory mandates requiring commercial banks to allocate a minimum percentage of portfolios to private lending (e.g., 20%). These measures would counterbalance domestic debt's drain on liquidity,

particularly as the ECM results show rapid adjustment to shocks (53% error correction), implying that targeted credit injections could yield quick economic dividends. Complementary reforms should include streamlining collateral requirements and improving credit bureaus to reduce perceived risks. By ensuring affordable capital access during high-debt periods, The Gambia could sustain private sector growth a vital buffer against debt-induced recessions.

FDI promotion offers a dual solution to debt dependency and growth stagnation. The analysis reveals FDI's positive short-run (0.107) and long-run (0.362 lagged) effects, confirming that foreign investment spurs productivity through technology transfer and job creation. However, The Gambia's FDI inflows remain suboptimal due to bureaucratic hurdles, weak infrastructure, and governance gaps. A comprehensive investment promotion strategy should include tax holidays for export-oriented industries, streamlined business registration (e.g., a 48-hour approval window), and enforceable investor protections against expropriation. Sector-specific targeting is crucial: The Gambia's geographic proximity to Europe, English-speaking workforce, and untapped tourism potential (e.g., coastal resorts, eco-tourism) could attract high-value investments. Additionally, public-private partnerships (PPPs) in energy and transport infrastructure would address critical bottlenecks while reducing fiscal burdens. By leveraging FDI's compounding long-run benefits, The Gambia could diversify its funding sources away from debt, mitigating the vulnerabilities exposed by the ECM results.

Domestic revenue mobilization is foundational to sustainable debt reduction. The Gambia's overreliance on volatile customs duties (30% of revenue) and inefficient tax collection (tax-to-GDP ratio of 12% vs. 18% African average) perpetuates borrowing cycles. Reforms must center on digitalizing tax administration to curb evasion, expanding the tax base via property taxes and e-commerce levies, and rationalizing exemptions. For example, implementing integrated e-filing systems could boost compliance by 25%, while satellite-based land valuation could capture untapped property tax revenue. Non-tax revenues such as user fees for ports, licenses, and state-owned enterprise dividends offer additional upside; a 10% increase in cost recovery for utilities alone could generate 2% of GDP annually. These measures would directly counteract domestic debt's severe long-run drag (-4.022) by reducing fiscal deficits at their source. The Gambia requires a customized debt sustainability framework tailored to its unique structural constraints climate vulnerability (ranked 10th globally for climate risk), tourism dependence (15% of GDP), and agricultural informality (45% employment). Generic IMF/World Bank

thresholds fail to account for these idiosyncrasies. A bespoke framework should incorporate dynamic debt-to-GDP and debt service-to-revenue ceilings adjusted for climatic shocks (e.g., drought-triggered grace periods) and economic sensitivities (e.g., tourism collapse scenarios). The ECM's evidence of rapid equilibrium restoration (53% adjustment) suggests such flexibility would allow proactive debt recalibration without destabilizing growth.

The Gambia's debt crisis demands urgent, evidence-based action. Short-term priorities include refinancing high-cost debt, stabilizing inflation, and protecting private credit, while long-term success hinges on FDI-driven diversification, revenue mobilization, and institutional reforms. By adopting these recommendations, policymakers can transform debt from a growth impediment into a manageable tool for development, ensuring The Gambia's resilience against future shocks. According to research, poorly structured institutions lead to issues with debt sustainability, so developing debt management capabilities needs top priority. In order to assist with the debt management process Along with established protocols for responsible borrowing decisions and contemporary debt transaction reporting systems, The Gambia must train its public debt officials in financial matters. In order to oversee public debt policy, including the assessment of new borrowing options, current debt tracking, and debt service coordination functions, a debt management office with the necessary authority, funding, and operational independence must be established.

The Gambia should set up procedures for selection and oversight in order to direct borrowing initiatives that provide adequate returns for managing debt costs. For projects that receive debt financing, the framework must incorporate cost-benefit analysis, transparent procurement practices for maximum value, and routine monitoring and evaluation techniques for tracking project outcomes. Priority debt financing should be given to economic projects that increase resilience and productivity simultaneously because they create income that can be used to settle debt. The Gambia's debt-related issues necessitate the adoption of a comprehensive debt strategy that blends short-term financing options with long-term economic objectives. The Gambia will make financial progress by implementing these suggestions, allowing debt obligations to support rather than obstruct economic growth. In order to meet the nation's long-term growth requirements, positive debt indicator projections allow for the establishment of sustainable debt management practices within the next five years. With careful debt

planning, strategic execution, and ongoing evaluation, The Gambia can achieve sustainable economic growth.

This study offers guidance on several policy issues facing The Gambia. To begin with, debt management is shown to be important, and although debt has not had a strong effect on GDP growth recently, this impact might increase in the long run. For this reason, policymakers should ensure that loaned money is invested usefully in sectors that bring long-term benefits to the economy. Gambia should pay special attention to enhancing the outcomes of infrastructure projects, mainly in education, healthcare, and agriculture. Besides, The Gambia should try to collect revenue from different places to not depend as heavily on debts from other countries. According to Moyo (2018), it is better for nations to increase fund sourcing from domestic resources and foreign direct investments rather than count entirely on loans from other countries. If external debt is funded from a variety of resources, it will lessen the risk posed by changes in interest rates or commodity prices from abroad.

A limitation of this research is that it is based on relatively short time span. Although 1976-2023 is a good period for drawing conclusions, an extended time span would yield a better understanding of the influence of public debt on economic growth in the very long term. Future research should look into whether an independent view on the influence of domestic and foreign debt is possible, since domestic and foreign borrowing might have different dynamics. Analysis into whether institutional quality acts as a factor moderating the relationship between debt and growth would further deepen understanding of how good practice in managing debt acts on economic growth as a result of public borrowing.

The empirical findings from this study carry significant policy implications for The Gambia's economic management, particularly in the areas of debt sustainability, investment promotion, and macroeconomic stability. The consistently negative effects of both external and domestic debt across short-run (-0.539 and -0.303 coefficients respectively) and long-run (-0.539 lagged external debt and -4.022 current domestic debt) periods underscore the urgent need for prudent debt management strategies. These results validate concerns about debt overhang effects, where high debt levels discourage private investment due to anticipated future tax burdens or resource transfers. For external debt, the particularly strong lagged negative effects suggest that policymakers should exercise extreme caution with new borrowing, as the most severe consequences may only materialize years later. The findings recommend establishing strict debt ceilings tied to GDP growth projections and implementing multi-year debt repayment scheduling to

avoid payment clustering. Regarding domestic debt, its severe immediate impact calls for prioritization of fiscal consolidation to reduce government borrowing from domestic financial markets, which currently crowds out private sector credit access. The positive and growing effects of FDI (0.107 short-run, 0.362 long-run) present a viable alternative financing strategy, suggesting that The Gambia should aggressively improve its investment climate through business regulatory reforms, infrastructure development, and targeted incentives in high-potential sectors like tourism and agribusiness. The inflation findings showing mild short-term benefits but significant long-term harm (-0.045 lagged inflation) support maintaining price stability as a key policy objective, requiring close coordination between the Central Bank and Ministry of Finance to align monetary and fiscal policies. The strong negative corruption coefficients (-0.820 current, -0.033 lagged) highlight how governance failures immediately undermine economic performance, emphasizing the need for institutional strengthening through transparent public financial management systems and robust anti-corruption measures. The delayed but substantial negative effects of high interest rates (-11.427 lagged) caution against overly tight monetary policy, suggesting that inflation control should be balanced with growth considerations. These policy directions align with and expand upon the earlier recommendations by providing empirical justification for integrated debt management systems, FDI promotion packages, and inflation-targeting regimes, while introducing new emphasis on anti-corruption institutional reforms and careful monetary policy calibration.

5.3 Limitations and Further Research

While this study provides valuable insights into The Gambia's debt-growth dynamics, several limitations must be acknowledged that both qualify the findings and suggest productive avenues for future research. The 47-year dataset (1976-2023), while substantial, remains constrained by developing country data challenges including inconsistent measurement methodologies and missing variables that could affect result precision. The relatively small sample size may obscure structural breaks in The Gambia's economy, such as the 1994 political transition or 2016 debt restructuring, which future studies could better capture through sub-period analysis or structural break tests. The current ECM specification, though statistically validated, might benefit from incorporating nonlinear relationships, for instance, testing whether debt effects intensify beyond certain GDP-to-debt thresholds (potentially around 55-60% of GDP based on regional comparators). Additional variables such as terms of trade shocks, climate vulnerability indices, or sectorial employment data could enhance model robustness given The Gambia's exposure to agricultural commodity price fluctuations and climate change

impacts. The generalizability of findings is inherently limited by The Gambia's unique economic structure as a small, import-dependent, tourism-sensitive economy, suggesting need for comparative studies with peer nations like Sierra Leone or Guinea-Bissau to identify context-specific versus regional patterns. These limitations notwithstanding, the study's core policy recommendations on debt management, FDI attraction, and inflation control remain valid, though their implementation should be accompanied by ongoing research to address these knowledge gaps. Future work could particularly focus on developing more sophisticated early-warning systems for debt distress that incorporate the nonlinear and threshold effects suggested by the strong lagged debt coefficients, while also evaluating the effectiveness of proposed interventions like credit guarantee schemes or FDI incentives through pilot programs and rigorous impact assessments. Such research would both validate and potentially refine the policy framework proposed here, creating an evidence-based feedback loop for continuous improvement of The Gambia's economic strategy.

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