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Department of Corporate Finance with specialty in Investment Management

The Nexus between Foreign Direct Investment and Financial Stability in Ethiopia

A Thesis Research Submitted to Addis Ababa University School of Commerce in Partial Fulfillment of the Requirements for the MSc in Corporate Finance

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Addis Ababa, Ethiopia

DECLARATION

I declare that the thesis entitled “The Nexus between Foreign Direct Investment and Financial Stability in Ethiopia” submitted for the partial fulfillment of the M.Sc. Degree is my original work and has not been presented for the award of any other degree, diploma, or similar title at this or any other university or institution. I have undertaken this research independently with the guidance and support of my research advisor, and all sources of materials used in the thesis have been properly acknowledged.

Declared by

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Date __June 30/2025 G.C

Certificate of Approval

This is to certify that the thesis prepared by Eyob Nega, entitled “The Nexus between Foreign Direct Investment and Financial Stability in Ethiopia” and submitted in partial fulfillment of the requirements for the Degree of Masters to Corporate Finance with specialty in Investment Management complies with the regulations of the University and meets the accepted standards with respect to originality and quality.

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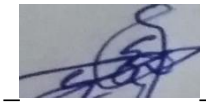
External Examiner: _Takele Fufa, PhD___Signature: _  __Date: _July 4, 2025.

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List of Abbreviations and Acronyms

- FDI - Foreign Direct Investment
- GDP - Gross Domestic Product
- NGCF - Net Growth Capital Formation
- GE - Government Expenditure
- FXR - Foreign Exchange Reserves
- UNEMP - Unemployment Rate
- Z-Score - Financial Stability Indicator (banking sector resilience)
- TFP - Total Factor Productivity
- FSIs - Financial Soundness Indicators
- IMF - International Monetary Fund
- OECD - Organization for Economic Co-operation and Development
- UNCTAD - United Nations Conference on Trade and Development
- NBE - National Bank of Ethiopia
- EIC - Ethiopian Investment Commission
- BRICS - Brazil, Russia, India, China, South Africa
- TNCs - Transnational Corporations
- MNEs - Multinational Enterprises
- HQ - Headquarters (of MNEs)
- ADF - Augmented Dickey-Fuller (unit root test)
- PP - Phillips-Perron (unit root test)
- GARCH - Generalized Autoregressive Conditional Heteroscedasticity
- ARDL - Autoregressive Distributed Lag (model)
- GMM - Generalized Method of Moments
- VIF - Variance Inflation Factor
- ECM - Error Correction Mechanism
- DW - Durbin-Watson (autocorrelation test)
- IM-test - Information Matrix Test
- OLS - Ordinary Least Squares

- OLI - Ownership, Location, Internalization (Dunning's Eclectic Paradigm)
- PLC - Product Life Cycle (Vernon's theory)
- MoFEC - Ministry of Finance and Economic Cooperation (Ethiopia)

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Abstract

This study investigates the nexus between Foreign Direct Investment and financial stability in Ethiopia using annual time series data from 2004 to 2023. A quantitative research design employed Ordinary Least Squares (OLS) regression, supported by diagnostic tests, to analyze the relationship between FDI inflows and financial stability. Key macroeconomic control variables included economic growth, government expenditure, net capital formation growth, foreign exchange reserves, and unemployment. Findings indicate that FDI had no statistically significant direct effect on financial stability. However, strong positive correlations were observed between government expenditure ($r = 0.9177$) and economic growth ($r = 0.8976$) with financial stability. Government expenditure significantly enhanced financial stability ($\beta = 0.9949$, $p = 0.017$). In contrast, net capital formation growth and foreign exchange reserves negatively affected stability, with coefficients of ($\beta = -0.5158$, $p = 0.018$) and ($\beta = -1.2850$, $p = 0.004$), respectively. The regression model explained 66.15% of the variance in financial stability ($R^2 = 0.6615$), with diagnostic tests confirming robustness. In conclusion, while FDI alone did not directly drive financial stability. The study highlights the critical role of government expenditure management and the need for strategic targeting of FDI to enhance financial stability in Ethiopia.

Keywords*: Foreign Direct Investment, Financial Stability, Ethiopia, Z-Score, Economic Growth, Government Expenditure, Macroeconomic Determinants, Regression Analysis.*

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Foreign direct investment (FDI) is defined as an investment involving a long-term relationship and reflecting a lasting interest and control by a resident entity of one economy (foreign direct investor or parent enterprise) in an enterprise located in another economy. (WIR, 2007). It implies that the investor exerts a significant degree of influence on the management of the enterprise resident in the other economy. Such investment involves both the initial transaction between the two entities and all subsequent transactions between them and among foreign affiliates, both incorporated and unincorporated. FDI may be undertaken by individuals as well as business entities (WIR, 2007). Flows of FDI comprise capital provided either directly or through other related enterprises by a foreign direct investor to an enterprise, or capital received from an investing enterprise by a foreign direct investor (OECD, 1996). It also provides an opportunity for the host economy to promote its products more widely in international markets and also important source of capital for a range of host and home economies (OECD, 2008).

FDI of developing countries has been considered as vital for economic growth. In this regard, policy makers have to give attention for poor countries challenges with shortage of financial and skilled man power. As referenced in the World investment report (2010) FDI can impact the host economy through a variety of channels. Principally, it helps by adding to the resources available for investment and capital formation. The transfer of technology, skills, innovative capacity, and organizational and managerial practices between countries is also enhanced through the activities of foreign direct investors (Elboiashi 2011; Newman et al., 2019 and Keller, 2021). Foreign direct investment inflows remain an important barometer that guides the direction and orientation of the development and implementation of economic policies and strategies of governments in these regions (WIR, 2010).

The key role of the financial sector in economic growth is introduced by (Schumpeter, 1911). He argued that the service provision by financial intermediaries including savings mobilization, risk management, projects evaluation, monitoring the managers, and facilitating transactions are necessary

for technological improvement and economic growth. Financial intermediaries need to be capable of efficient allocation of resources facilitating in that way higher returns and desirable risk transformation. The two modern literature on economic growth was actually started in mid 1950s when Solow (1956) presented his growth model. At that time the focus was kept on the functioning of labor, and capital resources rather than financial markets. Some leading economists like Goldsmith (1969), McKinnon (1973), Levine (1993) emphasized that finance can be an essential component for the growth of an economy.

Financial stability does not have a universally accepted definition, but a functioning definition is crucial for analyzing policy challenges in the expanding financial stability landscape. An ideal financial system should possess qualities of efficiency and should work to maintain them at national, regional, and global levels while preventing financial instability (Allen and Wood 2006; Rosengren 2011; Morgan and Pontines,2018). A stable financial system involves efficient resource allocation, risk assessment, and management, which maintains employment levels and reduces volatility in relative asset prices (Schinasi, 2004). Financial stability is assessed at both institutional and systemic levels. Central banks evaluate financial stability through financial stability reports. They examine Financial Soundness Indicators at the institutional level and aggregate them to the systemic level. FSIs, launched by the IMF in the late 1990s, evaluate a nation's risks to financial stability and assess the financial stability of financial institutions, businesses, and households. They offer an overall assessment of the financial stability and health of a nation's financial institutions, as well as that of its businesses and house-holds (Gadanecz and Jayaram 2008).

Financial stability is an important guarantee for the healthy and orderly development of the national economy and long-term social stability (Acharya, 2009; Fernández, González, and Suárez, 2016; Rampini, Viswanathan, and Vuillemey, 2019). According to the European Central Bank, financial stability is a state in which financial institutions, financial markets, and market infrastructure operate effectively, and resist various shocks without reducing the efficiency of the conversion of savings to investment. Financial stability reflects a state of financial operation as well as the requirement for the continuous optimization of resource allocation. Furthermore, it serves as the fundamental goal of financial development. The main factors affecting financial stability include risk monitoring and the regulation of cross-cutting financial services, the corporate governance of financial institutions, the

transfer and spread of financial risks, international capital flows, a fragile credit system, and financial security (Li, Liu, Siganos, and Zhou, 2016 and Abedifar, Giudici and Hashem, 2017). Enhancing financial system regulation, along with early risk detection and effective risk management, is essential for achieving financial stability. (Allen, Babus, and Carletti, 2009 and Battiston et al., 2016).

The connection between financial stability and foreign direct investment (FDI) has typically been explored in the context of capital flows and their behavior. This is because financial crises have often been linked to shifts in capital flows and sudden reversals (Fernández-Arias and Hausmann, 2000). The common belief is that FDI, often considered "cold money," carries a lower risk of sudden withdrawals and balance-of-payments crises compared to the more unpredictable "hot money" linked to portfolio investments. These rapid portfolio shifts are usually influenced by short-term factors such as interest rate gaps and expected changes in exchange rates, while FDI is largely driven by long-term profit goals (Sarno and Taylor, 1998). Therefore, the traditional view holds that increasing the proportion of FDI in total capital inflows can help reduce financial instability caused by sudden reversals in capital movement (Bird and Rajan, 2002).

The key question for the policymakers in less developed economies is how to have a process of sustained economic growth. A more advanced financial system lowers transaction, information, and monitoring costs (Goldsmith, 1969 and McKinnon, 1973 and Levine, 1993). An improved financial system enhances the efficient allocation of resources, which in turn promotes economic growth. A well-developed financial system supports investment by creating opportunities for businesses, mobilizing savings, facilitating trade, overseeing managerial performance, providing hedging instruments, and spreading risk (Levine, 1993). A proper legal and policy structure is required to have a strong financial system. Sala-i-Martin (1992) stated that most of the low-income economies are facing financial repression characterized by high inflation rates, directed or subsidized credits, credit rationing, loan and deposit interest rate ceilings. Roubini and Sala-i-Martin (1992) indicated that strong financial repression can reduce per capita GDP by one percentage point a year. Financial repression policies, which generate effortless inflationary income, lower the quality of financial services and reduce the marginal productivity of capital, ultimately inhibiting economic growth (Roubini and Salai Martin, 1992).

In Ethiopia, banking sector has demonstrated notable resilience and stability despite a range of domestic and global economic challenges. As of June 2024, the sector contains 32 commercial banks,

with the state-owned Commercial Bank of Ethiopia remaining the largest, holding approximately 47.9% of total banking assets and 47.1% of deposits. This substantial market share highlights CBE's systemic importance within the country's financial system (NBE, 2024). The sector has maintained a strong capital adequacy ratio, significantly exceeding the regulatory minimum of 8%, providing a solid barrier against potential financial shocks. Total banking assets reached approximately 3.3 trillion birrs by mid-2024, largely driven by an increase in loans and advances. However, a major concern remains the concentration of credit, with a significant share of loans directed toward state-owned enterprises, raising potential systemic risk (NBE, 2024). to address these challenges, the National Bank of Ethiopia has issued regulatory directives aimed at strengthening governance and enhancing risk management practices across the banking sector. Liquidity management also remains a critical area of focus. A high concentration of deposits among a few large clients increases vulnerability to liquidity shocks in the event of large simultaneous withdrawals. While current liquidity indicators are stable, the NBE has encouraged banks to improve liquidity contingency planning and diversify their funding bases (NBE, 2024).

The sector remains the cornerstone of Ethiopia’s financial system, accounting for 96.1% of total financial sector assets, equivalent to 3.409 trillion birr or approximately 29.5% of GDP (NBE, 2024). The banking landscape includes a variety of institutions: the systemically important CBE; the Development Bank of Ethiopia (DBE), focused on long-term development financing; four private interest-free banks; six recently transformed microfinance institutions; and 21 private conventional commercial banks. Although CBE’s market share has slightly declined, it remains a key pillar of financial system stability amid both domestic and international pressures. Recent structural shifts show encouraging signs of market diversification. Medium-sized banks now account for 28.9% of sector assets, while small banks hold 23.3%, driven by new entrants and rapid expansion (NBE, 2024). This trend reflects a gradual reduction in systemic concentration and enhances the sector’s competitiveness and inclusiveness.

However, certain vulnerabilities remain. Stress tests conducted by the NBE reveal that while CBE maintains liquidity buffers under normal conditions, it remains prone to liquidity stress arising from potential large-scale deposit withdrawals. Furthermore, concerns exist regarding the composition of CBE’s capital, which relies heavily on non-cash government bonds. A transformative development in Ethiopia’s financial landscape is the anticipated launch of the Ethiopian Securities Exchange (ESX).

This initiative aims to diversify financing options beyond traditional bank lending, enhance capital market transparency, and improve Ethiopia's integration with global financial systems. It is expected to particularly benefit private sector enterprises by expanding access to long-term capital (NBE, 2024). In conclusion, Ethiopia's banking sector is well-positioned for continued growth, supported by ongoing reforms, regulatory oversight, and a favorable macroeconomic outlook. While structural and concentration-related risks remain, the sector is fundamentally assessed as "safe, sound, and stable." The continued resilience and reform of the banking sector will be pivotal in supporting the country's economic development and ensuring long-term financial stability (NBE, 2024). The aim of this study is to analyze the relationship between foreign direct investment and financial stability in Ethiopia, with a particular focus on the banking sector. The research seeks to understand how FDI can impact the resilience and growth of the banking industry, which plays a crucial role in the overall financial system. By examining the current state of the Ethiopian banking sector, including its challenges and opportunities, the study aims to provide insights for policymakers on optimizing capital inflows to enhance financial stability and promote sustainable economic development.

1.2 Statement of the Problems

Ethiopia strategically prioritizes Foreign Direct Investment to address domestic savings shortfalls, accelerate industrialization, and fuel economic transformation (Dornbusch, 1998; MoFEC, 2019). While FDI offers critical benefits such as technology transfer, infrastructure financing, and productivity gains (Elboiashi, 2011; Newman et al., 2019), its complex relationship with financial stability remains poorly understood in Ethiopia's unique context. This gap is particularly concerning given structural vulnerabilities within Ethiopia's financial system, which is overwhelmingly dominated by a banking sector characterized by high concentration risk and liquidity pressures emerging from deposit concentration (NBE, 2024). Existing research on FDI in Ethiopia focuses extensively on its macroeconomic determinants (e.g., Getinet & Hirut, 2006; Tadesse, 2016) and growth contributions (e.g., Gidey, 2020; Gebremariam & Ying, 2022), but largely neglects its potential implications for systemic financial stability, particularly given vulnerabilities like credit concentration in State owned enterprises and deposit-dependent liquidity risks.

Global evidence indicates that FDI, while often considered more stable than portfolio flows, can still introduce significant risks to developing financial systems. Large capital inflows can fuel lending booms, amplify maturity and currency mismatches, contribute to asset price bubbles, and increase

vulnerability to external shocks and sudden reversals risks amplified in systems with underdeveloped regulatory frameworks and limited market depth (Kim & Singal, 2000; Combes, Kinda, & Plane, 2012; IMF, 2016). Ethiopia's pursuit of FDI-driven growth through major initiatives like the Homegrown Economic Reform Plan and industrial parks (MoFEC, 2019; World Bank, 2021), coupled with its emerging capital markets (e.g., the newly launched Ethiopian Securities Exchange) and evolving exchange rate regime (IMF, 2020), heightens these concerns. The country's heavy reliance on FDI to finance infrastructure and its growing external debt further underscore the potential for financial instability if inflows prove volatile or contribute to unsustainable imbalances (IMF, 2021).

Consequently, a critical knowledge gap exists: there is insufficient understanding of how FDI inflows interact with Ethiopia's specific financial stability dynamics. Policymakers lack empirical evidence on whether and how FDI affects systemic risks within the concentrated banking sector, influences credit cycles, impacts liquidity management, or contributes to broader financial vulnerabilities. Without this understanding, efforts to attract FDI through liberalization and incentives (EIC, 2021) risk undermining the resilience of a financial system already facing significant structural challenges. Therefore, this study examines the nexus between FDI inflows on the stability of Ethiopia's banking-dominated financial system and explores policy measures to maximize FDI benefits while mitigating risks to financial stability.

1.3 Research Questions

The following are the research questions to be addressed in the study

- **i)** How does Foreign Direct Investment influence the stability of Ethiopia's financial sector?
- **ii)** What policy measures can be implemented to maximize the developmental benefits of FDI?

1.4 Objective of the study

The general objective of the study is to assess the Nexus between Foreign Direct Investment and Financial Stability in Ethiopia

On the basis of the above general objective, the specific objectives of the study are:

- **i)** To analyze the relationship between FDI and financial stability in Ethiopia's financial sector.
- **ii)** To identify policy measures that can be implemented to maximize the developmental benefits of Foreign Direct Investment in Ethiopia.

1.5 Significance of the Study

This study is significant for academic researchers, policymakers, investors, and finance executives by providing a comprehensive analysis of the nexus between Foreign Direct Investment and Financial Stability in Ethiopia. Academically, it contributes to the existing literature by offering empirical insights into the relationship between FDI and financial stability. For policymakers, the study provides valuable recommendations on regulatory frameworks and policy measures to attract FDI. For investors, both domestic and foreign, can use the findings to assess risks and opportunities and to make informed investment decisions. Moreover, finance executives can leverage the study's insights to develop strategies for risk management, capital allocation, and financial planning, ultimately strengthening the resilience of Ethiopia's financial system.

1.6 Scope of the Study

This study examines the relationship between Foreign Direct Investment (FDI) and financial stability in Ethiopia from 2004 to 2023, analyzing nationwide economic patterns and their implications. The research incorporates perspectives from multiple stakeholder groups within Ethiopia's financial ecosystem, including: monetary authorities at the National Bank of Ethiopia responsible for banking sector stability; local entrepreneurs and multinational corporations engaged in investment activities; and academic researchers along with financial experts who assess market trends. Through this comprehensive, national-level analysis, the study investigates how FDI has influenced Ethiopia's evolving financial landscape throughout this two-decade period.

1.7 Limitation of the Study

This study has certain limitations. It relies exclusively on secondary data, which may limit the completeness of the analysis. Additionally, there is limited prior research on the relationship between FDI and financial stability in Ethiopia, restricting the study's capacity for proper comparisons and the ability to build upon existing knowledge. Furthermore, the focus on a specific national context may affect the applicability of the findings to broader regional or global frameworks, potentially limiting the insights gained from this research.

1.8 Organization of the Study

This study organized into five chapters. Chapter one focuses on the introduction of the study, which consists of background of the study, statement of the problem, research questions, objective of the study, and significance of the study and limitation of the study. Chapter two deals with the review of related theoretical and empirical literatures. Chapter three gives emphasis on the research methodology including data type and sources, method of data collection, method of data analysis, sample size and sampling techniques. Chapter four focuses on the findings and discussions of the study. The last chapter provides the conclusion and recommendation of the study.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter presents review of the literatures on Foreign Direct Investment (FDI) and Financial Stability theories and empirical findings on the relationship between the two variables. It specifically includes an examination of theoretical frameworks, empirical studies, and identified literature gaps. The chapter concludes by outlining the conceptual framework that will guide the current study, establishing a foundation for understanding the relationship between FDI and Financial stability.

2.2 Theoretical Review

2.2.1 Concepts of Foreign Direct Investment

Foreign Direct Investment is defined as international investment made by one economy's resident entity, in the business operations of an entity resident in a different economy, with the intention of establishing a lasting interest (IMF, 1993). Foreign direct investment (FDI) occurs when an investor based in one country (the home country) acquires an asset in another country (the host country) with the intent to manage that asset (Amirahmadi and Weiping, 1994). The management dimension is what distinguishes FDI from portfolio investment in foreign stocks, bonds and other financial instruments. Alternatively, FDI can be considered as the ownership of 10 percent or more of the ordinary shares or voting stock of an enterprise which is usually considered to indicate 'significant influence' by an investor (IMF, 2000). This however differs from country to country and can even be determined by their policies, some of which restrict the levels of shareholdings of foreigners in local firms (Dasgupta and Sengupta, 1995).

FDI theory has evolved through various schools of thought, with no single theory achieving universal acceptance. Early economic theories by Smith (1937) and Ricardo (1817) established the foundation for international specialization in production. Smith's absolute advantage theory explained trade as a function of a country's ability to produce goods more efficiently than competitors, but it failed to account for trade between nations where one lacked production capacity. Ricardo (1817) expanded on this with the theory of comparative advantage, suggesting that trade occurs when countries specialize

in goods; they produce more efficiently relative to others. However, Ricardo's model was limited by its assumptions of perfect factor mobility within countries but not across borders. Later, Kindleberger (1969) argued that in a perfectly competitive world, FDI would not exist, as international trade alone would suffice for market participation. Minsky (1976), however, introduced a new perspective, asserting that FDI is driven by firms' desire to reduce competition and leverage unique advantages. Meanwhile, Mundell (1957) proposed a two-sector model where capital flows substitute for international trade, but his framework was more applicable to short-term portfolio investments rather than FDI. To address these limitations, Kojima and Ozawa (1984) developed a model linking FDI to comparative disadvantage, thus distinguishing it from traditional trade theories.

Further advancements in FDI theory emerged post-World War II, notably Vernon's (1966) Product Life Cycle (PLC) theory, which explained how firms shift from exports to foreign production as their products mature. According to Nayak and Choudhury (2014), the PLC theory describes four stages innovation, growth, maturity, and decline whereby firms initially produce and sell domestically, then expand internationally through exports, and eventually establish foreign production to sustain market dominance. Other scholars, including Casson (1979), Calvet (1983), and Rugman (1980), sought to integrate multiple FDI determinants such as capital markets, firm growth, and industrial organization into a comprehensive framework. Among these, Dunning's (1977) Eclectic Paradigm, also known as the OLI framework, gained Significance through integration ownership, location, and internalization advantages to explain why firms choose FDI over exporting or licensing. As Boddewyn (1983) noted, modern FDI theory now incorporates elements from international capital markets, firm theory, and international trade, requiring analysis from both macroeconomic and microeconomic perspectives.

2.2.2 Macroeconomic FDI Theories

The macroeconomic view of FDI is described the flow of capital across national borders, moving from home to host countries and recorded in balance-of-payments statistics (Lipsey and Sjoholm, 2004). Lipsey and Sjoholm (2004) explained these flows as a rise to a particular form of stocks of capital in host countries, namely the value of home country investment in entities, typically corporations, controlled by a home-country owner. They further clarify that the variables of interest are the flow of financial capital, the value of the stock of capital that is accumulated by the investing firms, and the flows of income from the investments. Various theories and macro-level factors that will influence host country ability to attract FDI will discuss below.

A. Capital Market Theory

Aliber (1970) suggested that foreign investment generally arises due to imperfections in capital markets, while foreign direct investment (FDI) specifically results from disparities between the currencies of the source and host countries (Nayak & Choudhury, 2014). He argued that countries with weaker currencies tend to attract more FDI, as they can better exploit variations in market capitalization rates compared to countries with stronger currencies. Additionally, Aliber (1970) noted that multinational corporations (MNCs) from source countries with strong currencies can secure loans at lower interest rates than local firms in host countries. This is because portfolio investors may overlook the international aspects of these MNCs, allowing them to benefit from cheaper capital for their overseas operations compared to local firms (Aliber, 1970). While this capital market theory is applicable to developed nations, subsequent scholars have critiqued it for neglecting key elements of currency risk management.

B. Location-based Approach to FDI Theories

This theory suggests that a country's capacity to attract foreign direct investment (FDI) is influenced by various factors, including natural resources, labor availability, market size, infrastructure, and government policies governing these resources (Popovici & Calin, 2014). An extension of this idea is the gravity model of FDI, which indicates that investment flows are most robust between nations that share geographical, economic, and cultural similarities. Important gravity factors include the size of the economies, their level of development, distance between them, common language, and institutional elements such as trade openness and shareholder protection (Popovici & Calin, 2014). However, this model offers a somewhat oversimplified perspective on FDI, as investment decisions are shaped by factors beyond mere country similarities. While being geographically close can lower transportation costs, it does not necessarily lead to reductions in labor costs or other production-related expenses. Therefore, a more refined framework is essential to fully the complexities of FDI determinants (Popovici & Calin, 2014).

C. Institutional FDI Fitness Theory

Developed by Wilhelms and Witter (1998), the concept of FDI fitness refers to a country's capacity to attract, absorb, and retain Foreign Direct Investment (FDI). This capability highlights how well a country can adapt to the internal and external expectations of its investors, providing a competitive

edge in securing FDI inflows. The theory seeks to explain the uneven distribution of FDI across different countries. Wilhelms' institutional FDI fitness theory is built on four fundamental pillars: socio-cultural, educational, market, and government fitness. At the base are socio-cultural factors, which Wilhelms and Witter (1998) describe as the oldest and most intricate institutions. The second pillar, education, is deemed essential for creating an appealing environment for FDI, as a well-educated workforce enhances creativity in research and development, as well as information processing capabilities. The third pillar, market fitness, addresses the economic and financial dimensions that influence FDI, emphasizing the importance of physical and financial capital. According to Wilhelms and Witter (1998), robust and well-functioning financial markets are crucial in multinational corporations' investment decision-making processes. The fourth and final pillar is government fitness, which underscores the significance of a country's political stability in attracting FDI. Effective government fitness involves implementing protective regulations to manage market conditions. Popovici and Calin (2014) note that government fitness encompasses economic openness, minimal trade and exchange rate interventions, low corruption, and enhanced transparency. If a country's policies are unfavorable towards investors, multinational corporations are likely to avoid such environments, as political instability raises investment risks (Wilhelms and Witter, 1998).

2.2.3 Microeconomic FDI Theories

Lipsey and Sjoholm (2004) assert that the microeconomic perspective on Foreign Direct Investment (FDI) evaluates the motivations of investors from their viewpoint, akin to adopting a firm-level or industry-level approach in decision-making. This micro-level analysis focuses on the implications of multinational corporations' operations and the affiliates established through these investments, rather than merely examining the magnitude of FDI flows or the value of investment stocks (Lipsey and Sjoholm, 2004). The consequences of these investments impact not only the investors but also the home and host countries, manifesting through trade, employment, production, and the movement and accumulation of intellectual capital, which can be accessed via capital flows and stocks in the balance of payments, along with some indicators included in the current account (Lipsey and Sjoholm, 2004). Many microeconomic theories of FDI are predicated on the concept of imperfect markets. According to Hymer's (1976) firm-specific advantage theory, a multinational corporation's decision to invest abroad is influenced by certain intrinsic advantages, such as access to raw materials, economies of scale, labor availability, low transaction costs, and intangible assets like brands and patents (Hymer, 1976). Hymer's foundational theory for explaining international production is further supported by

other scholars, including Kindleberger (1969) with his imperfect markets model, Knickerbocker (1973) through the oligopolistic reaction theory, Buckley and Casson (1976) via the internalization theory, and Dunning (1977) with the eclectic paradigm. Collectively, these theories emphasize the significance of imperfect markets and their influence on firm behavior. There are several firm-level FDI theories that will be discussed below.

A. The Eclectic Paradigm (O-L-I Framework)

One of the most recognized theories of foreign direct investment (FDI) is articulated by Dunning (1980), who combined various theories from international trade, imperfect markets (monopoly), and internalization, while also incorporating location theory. According to Dunning (2001), for a firm to pursue foreign direct investment, it must meet three simultaneous criteria. First, the firm should possess net ownership advantages that surpass those of other firms in specific markets. These ownership advantages, which are unique to the firm, can include both tangible and intangible assets such as trademarks, patents, information, and technology, leading to reduced production costs that enhance the firm's competitiveness in a foreign market (Dunning, J.H., 2001). Hymer (1976) and Kindleberger (1969) also highlighted these advantages in their theories regarding market imperfections, focusing on firm-specific and monopolistic advantages. Secondly, it should be more advantageous for the firm with these ownership benefits to utilize them internally internalization rather than to sell or lease them to foreign entities via licensing or management contracts externalization (Boddewyn, 1983). Lastly, assuming the first two conditions are satisfied, it must be economically viable for the firm to leverage these advantages for production, in conjunction with other input factors like natural resources and human capital, outside its home market; otherwise, the firm would resort to serving foreign markets through exports and domestic production for local markets (Dunning, 2001).

Boddewyn (1983) emphasized that the more a country's firms enjoy ownership advantages, the greater the incentive they have to internalize them, and the more profitable to exploit them outside their home country, then the higher the probability of engaging in FDI and international production. Because of the interrelatedness of the three conditions, it is important that they occur simultaneously, otherwise FDI cannot occur. The context and application of the Ownership, Location and Internalization (OLI) paradigm differs from firm to firm, and hence the theory cannot be considered in isolation of theories which affirm the importance of the host country characteristics (Dunning, 2001). The eclectic theory developed by professor Dunning is a mix of three different theories of FDIs (O-L-I).

Ownership applies to intangible that are, at least temporarily, exclusive to a firm and can be transferred within transnational corporations (TNCs) at relatively low costs. This transfer can enhance revenues or reduce expenses (Dunning, 1973, 1980, 1988). Nonetheless, TNCs face additional costs when operating in various countries. To effectively penetrate a foreign market, a firm must possess distinct characteristics that enable it to mitigate the operational costs associated with that market. These advantages represent the firm's core competencies or unique benefits, allowing it to retain a monopoly over its specific strengths. Exploiting these advantages internationally can yield higher marginal profitability or lower marginal costs compared to competitors (Dunning, 1973, 1980, 1988). There are three main types of specific advantages: monopoly advantages, which include exclusive access to markets through ownership of rare natural resources, patents, and trademarks; technology and knowledge, covering all forms of innovative activities that enhance competitive positioning; and economies of scale and scope, which relate to greater operational efficiencies, such as learning economies and improved access to financial resources (Dunning, 1973, 1980, 1988).

The "L" in location signifies that once the initial condition is satisfied, it is more advantageous for the company with ownership advantages to utilize them directly rather than sell or lease them to foreign firms. Dunning (1980) emphasizes that the location advantages of various countries are key factors in determining which countries will host the activities of transnational corporations. These advantages can be categorized into three main types. First, economic advantages encompass both quantitative and qualitative factors of production, along with considerations such as transportation and telecommunications costs, and market size. Second, political advantages include both general and specific government policies that influence FDI flows. Lastly, social advantages refer to factors like the distance between the host and home countries, cultural diversity, and attitudes towards foreigners (Dunning, 1973, 1980, 1988).

The "I" in internalization posits that if the first two conditions are satisfied, it must be profitable for the company to utilize its advantages in conjunction with certain factors from outside its country of origin (Dunning, 1973, 1980, 1988). This third element of the eclectic paradigm, known as OLI, provides a framework for evaluating the various methods through which a company can leverage its capabilities, ranging from the sale of goods and services to diverse agreements that may be established

between firms. As the benefits of cross-border market internalization increase, firms are more inclined to engage in foreign production rather than granting rights through licensing or franchising. The OLI framework illustrates that the parameters associated with ownership, location, and internalization vary from one company to another and are contingent upon the specific context, reflecting the economic, political, and social characteristics of the host country (Dunning, 1973, 1980, 1988). Consequently, the objectives and strategies of firms, along with the scale and nature of production, will be influenced by the challenges and opportunities presented by different types of countries.

2.2.4 Theories of FDI and Subsidiary Capital Structure

Capital structure theories at the corporate level can be grouped into three main categories, each focusing on different aspects like tax benefits of debt, information asymmetries, and agency costs (Myers, 2001). The trade-off theory posits that companies weigh the tax advantages of debt primarily the tax deductibility of interest payments against the potential downsides of financial distress. These downsides can include costs related to bankruptcy and reorganization, as well as agency costs that emerge when a firm's creditworthiness comes into question (Myers, 2001). This perspective is particularly relevant in the context of multinational enterprises (MNEs), where capital structure decisions are often linked to international tax strategies. High corporate taxes can be offset by leveraging debt financing, as interest payments are deductible from corporate earnings, making it a strategic choice for MNEs (Mintz & Weichenrieder, 2010).

An innovative financing method called internal debt arises within the intra-firm context, where the headquarters (HQ) extends loans to its subsidiaries. In this scenario, the lender is also the owner, leading to the perception that internal debt functions similarly to equity while providing tax deductibility benefits. According to Chowdhry and Nanda (1994), internal debt does not incur bankruptcy costs. They suggest that external debt acts as a benchmark for multinational enterprises (MNEs) to justify the interest rates on internal loans to tax authorities. Therefore, the ideal balance between internal and external debt hinges on the trade-off between tax savings and the expected bankruptcy costs related to external debt.

Moreover, local external debt can be used to finance subsidiaries in politically unstable regions, helping to mitigate asset risk exposure (Chowdhry & Coval, 1998). Internal debt also facilitates navigation through constraints present in local external capital markets (Desai et al., 2004).

Conversely, the pecking order theory put forth by Myers and Majluf (1984) tackles the challenges of asymmetric information between investors and firms. This theory suggests that, in uncertain situations regarding a firm's value, investors perceive debt as a less risky option compared to equity, as it reduces the information advantage that managers possess. Myers (2001) highlights that optimistic managers, who believe their company's shares are undervalued, tend to favor debt issuance over equity. In the context of subsidiaries, asymmetric information can manifest in two key ways: between the subsidiary and the headquarters, and between the subsidiary and external investors. In the latter scenario, financing for subsidiaries may adhere to a pecking order, prioritizing internal capital market financing (be it internal equity or debt) over external debt and, ultimately, external equity, such as joint ownership of the subsidiary (Dewaelheyns & Hulle, 2010).

Finally, agency-based theories primarily examine the conflicts of interest that arise between managers and shareholders once control is delegated to managers (Jensen & Meckling, 1976). While monitoring and incentive contracts can help reduce self-serving behavior among managers (Fama & Jensen, 1983), effective monitoring is often too costly, allowing managers some freedom to act in their own interests. Jensen's (1983) free cash flow theory posits that leveraging debt can restrict managerial discretion in firms that lack profitable investment opportunities. Additionally, agency-based capital structure theories take into account the types of assets being financed (Benmelech & Bergman, 2009). In adverse selection models of debt, collateral acts as a signaling mechanism for high-quality firms, which are less likely to default and lose their collateral. In contrast, moral hazard theories suggest that lower-quality firms may offer collateral to enhance their pledge-able income. Increasingly, agency theory is being applied to the governance of multinational enterprises (MNEs) (Filatotchev & Wright, 2011; Hoenen & Kostova, 2015; Kim et al., 2005).

In the context of multinational enterprises (MNEs), governance takes place within a "sub-economy," where the headquarters (HQ) nominally owns all assets (Holmstrom, 1999). In this setup, an internal capital market serves as the main funding source for individual business units, replacing external capital markets (Poppo, 1995). Internal governance must account for not only the relationship between HQ and subsidiaries but also the interactions among the subsidiaries themselves.

The advantages of internal capital markets include reduced information asymmetries and the ability for HQ to allocate capital to projects more efficiently than external financial markets would allow

(Williamson, 1988). Moreover, it is generally assumed that assets can be transferred within the MNE, which eliminates internal bankruptcy costs (Chowdhry & Nanda, 1994). However, research has also pointed out the drawbacks of internal capital markets, such as reduced incentives for subsidiary managers to invest and operate efficiently. Additionally, internalization can lead to rent-seeking behaviors, where subsidiary managers lobby HQ for resources and preferential treatment (Inderst & Laux, 2005; Scharfstein et al., 2000).

2.2.5 Financial Instability Hypothesis

The financial instability hypothesis is an interpretation of Keynes's General Theory. The financial instability hypothesis is drawn upon the credit view of money and finance by Joseph Schumpeter (Schumpeter, 1934). Key works for the financial instability hypothesis in the narrow sense are, of course, Minsky (1975, 1986). The theoretical argument of the financial instability hypothesis starts from the characterization of the economy as a capitalist economy with expensive capital assets and a complex, sophisticated financial system (Minsky, 1986).

Minsky (1986) developed a sophisticated theory on financial fragility, the essence of which is neatly summarized as optimistic expectations about the future create a margin, reflected in higher asset prices, which makes it possible for borrowers to access finance in the present. In other words, the capitalized expected future earnings work as the collateral against which firms can borrow in financial markets or from banks (Minsky, 1986). However, the value of long-lived assets cannot be assessed on any firm basis as they are highly sensitive to the degree of markets confidence of certain states of the world will pass in the future. This means that any sustained shortfall in economic performance in relation to the level of expectations that are already capitalized in asset prices is susceptible to engendering the view that asset prices are excessive. Once the view that asset prices are excessive takes hold in financial markets, higher asset prices cease to be a stimulant and turn into a drag on the economy. Initially debt-led, the economy becomes debt-burdened (Minsky, 1986).

The financial instability hypothesis examines the impact of debt on systemic behavior and the validation of that debt (Fisher, 1933). In contrast to the traditional Quantity Theory of Money, this hypothesis posits that banking operates primarily on profit motives. As profit-seeking entities, banks finance a variety of activities and innovations through the assets they acquire and the liabilities they issue (Minsky, 1986). This innovative perspective challenges the conventional Quantity Theory, which

assumes a stable "money" item with a nearly constant velocity of circulation and suggests a direct proportional relationship between changes in the money supply and a well-defined price level (Minsky, 1986).

Minsky (1986) further elaborates on distinct income-debt relationships among economic units, categorizing them as hedge, speculative, and Ponzi financing. Hedge financing units are capable of meeting all their contractual payment obligations from their cash flows, with a higher proportion of equity financing in their capital structure increasing the likelihood of being classified as hedge units. Common examples of hedge financing units include governments with floating debts, corporations issuing commercial paper, and banks (Minsky, 1986). In contrast, Ponzi units are those for which cash flows from operations are insufficient to cover either principal repayments or interest on outstanding debts. These units may resort to asset sales or additional borrowing. Minsky (1986) explains that borrowing to pay interest or selling assets to meet interest payments (and even dividends) diminishes a unit's equity while simultaneously increasing its liabilities and future income commitments. Consequently, Ponzi financing reduces the margin of safety available to debt holders (Minsky, 1986).

It can be shown that if hedge financing dominates, then the economy may well be an equilibrium seeking and containing system (Minsky, 1986). In contrast, the greater the weight of speculative and Ponzi finance, the greater the likelihood that the economy is a deviation amplifying system. The first theorem of the financial instability hypothesis is that the economy has financing regimes under which it is stable and financing regimes in which it is unstable. The second theorem of the financial instability hypothesis is that over periods of prolonged prosperity, the economy transits from financial relations that make for a stable system to financial relations that make for an unstable system. (Minsky, 1986).

During extended periods of economic growth, capitalist economies often shift from a financial structure dominated by hedge finance entities to one influenced significantly by speculative and Ponzi finance units (Minsky, 1986). In an inflationary context, if authorities impose monetary restrictions to control inflation, speculative units may transition into Ponzi units, which can lead to a rapid decline in the net worth of those previously classified as Ponzi units. Consequently, entities experiencing cash flow issues will be forced to liquidate their positions, potentially resulting in a collapse of asset values. The financial instability hypothesis suggests that business cycles in capitalist economies emerge from

internal dynamics rather than external shocks, leading to fluctuations of varying intensity. This hypothesis emphasizes that historical business cycles are deeply rooted in the inherent mechanisms of capitalist systems, along with the interventions and regulations aimed at ensuring economic stability (Minsky, 1986).

Governments and central banks play a critical role in stabilizing capitalist economies through monetary policy, fiscal policy, and regulatory frameworks. For instance, Keynes (1936) advocated for active government intervention, particularly during economic downturns, to stimulate aggregate demand through public spending and deficit financing (Keynes, 1936). Similarly, Minsky emphasized the importance of regulatory measures to curb excessive risk-taking and speculative behavior in financial markets. He proposed policies such as stricter capital requirements, limits on speculative financing, and the establishment of lender-of-last-resort facilities to prevent systemic collapses (Minsky, 1986). These interventions aim to balance the dynamism of capitalist economies with the need for stability, ensuring that growth does not lead to unsustainable financial practices.

2.3 Empirical Literature Review

Recent empirical literature indicated that FDI influences economic growth on condition that absorption capacities are not just present in the host country but have reached a minimum level needed to make use of the technology, knowledge and skills associated with FDI (Vita and Kyaw, 2009). Vita argued that financial sector development is among the absorption capacities that must be present in the host country to ensure significant FDI inflows. Focusing on Sub-Saharan African countries, Sghaier and Abida (2013) suggested that these countries could only benefit from technological diffusion that comes with FDI if their financial systems reach a certain minimum level of development. Choong (2012) acknowledged that financial sector development must reach a certain minimum threshold point before FDI inflows positively and significantly influence economic growth in the host countries. In its panel study of BRICS (Brazil, Russia, India, China and South Africa) countries, Kaur et al. (2013) reported that developed financial markets enable host countries to benefit from FDI through better provision of financial support in terms of quicker transactions, provision of loans, good foreign currency services and optimal allocation of capital to more deserving projects.

Majeed, Wang, and Zhang (2021) investigated the effects of foreign direct investment (FDI) on foreign development across 102 nations participating in the Belt and Road Initiative, encompassing

four continents: Asia, Europe, Africa, and Latin America. Utilizing data from 1990 to 2017, the researchers employed a range of quantitative methodologies, including feasible generalized least squares and augmented mean group techniques. The study's findings revealed that FDI, trade openness, government consumption, and inflation exhibit a statistically significant correlation with foreign development (FD). Specifically, FDI, trade openness, and government consumption were found to enhance FD in Asia, Europe, and Latin America, while having a detrimental effect in Africa. Additionally, inflation negatively impacted FD across all continents. The Dumitrescu–Harlin panel causality test further demonstrated a bidirectional causal relationship among FDI, trade openness, and FD in Asia and Europe, whereas a unidirectional relationship was identified between FDI and FD in Latin America. Income-based analysis indicated that low- and middle-income countries attract more FDI compared to high-income countries due to elevated factor costs. These empirical findings offer valuable insights for policymakers, highlighting several implications for enhancing FD competitiveness in the targeted regions

Bianco (2017) examined the influence of price and real exchange rate volatility on foreign direct investment (FDI) inflows across a panel of ten Latin American and Caribbean nations from 1990 to 2012. Employing the Generalized Autoregressive Conditional Heteroscedasticity (GARCH) model to assess volatility, the study found a statistically significant negative impact of exchange rate volatility on FDI, thereby corroborating the theories of hysteresis and option value. Conversely, price volatility was observed to have a positive but statistically insignificant effect. Furthermore, the research underscores the importance of human capital and trade openness as critical determinants for attracting foreign investment. From a policy standpoint, the results indicate that stabilization measures and governmental credibility are vital for fostering trade openness and enhancing human capital development, ultimately facilitating greater FDI inflows.

Teixeira and Heyuan (2012) explored the significance of human capital in attracting innovative foreign direct investment (FDI) to China. Utilizing a survey of 77 innovative firms and employing logistic regression techniques, the study concludes that while human capital does not directly attract FDI, it serves as a beneficial indirect factor through firms' research and development initiatives. Furthermore, the research indicates that partnerships with universities positively influence the attraction of FDI; however, these connections alone are insufficient to maintain the impact of human capital on FDI. The findings advocate for public authorities to acknowledge the synergies between

education and innovation policies, as human capital can effectively draw innovative foreign investment when complemented by substantial levels of research and development expenditure.

Gang-Gao (2021) investigated the factors influencing technological innovation in the BRICS economies during the Fourth Industrial Revolution, utilizing data spanning from 1990 to 2017. The study employed sophisticated panel data methodologies, including the Westerlund panel co-integration technique and the augmented mean group (AMG) approach. The findings establish a stable long-term equilibrium relationship among the analyzed variables. Notably, the research indicates that increases in gross domestic product, human capital, research and development expenditures, and foreign direct investment spillovers have a positive effect on technological innovation within BRICS countries. Additionally, the results suggest that enhanced human capital significantly fortifies the relationship between technological innovation and knowledge spillovers. This underscores the importance of both knowledge spillovers and well-developed human capital as critical drivers of technological innovation in these economies.

Jonah, Ebire, and Daniels (2022) investigated the relationship between foreign direct investment and financial stability in Nigeria from the first quarter of 2003 to the last quarter of 2019. The study employed an ex-post facto research design, utilizing data sourced from secondary references. An Augmented Dickey-Fuller test was conducted to assess stationarity, revealing that all variables were integrated of order one. The Johansen cointegration test indicated a long-term relationship among the dependent and independent variables. Hypotheses were evaluated using the Error Correction Mechanism (ECM), which demonstrated that short-term deviations would adjust to their long-run equilibrium at a rate of 17.3% quarterly. The findings indicate that FDI as a percentage of GDP positively influences Nigeria's financial stability. Conversely, FDI as a percentage of fixed investment and net FDI exert a significant negative effect on financial stability. The study concludes that FDI inflows play a critical role in enhancing financial stability in Nigeria. Based on these findings, the authors recommend that relevant authorities, such as the Ministry of Trade, Commerce, and Investment, establish a conducive investment environment through regulations that safeguard investors' interests to attract FDI into the economy.

Nuru and Menza (2022) examined the effect of sector-specific foreign direct investment (FDI) (the primary, secondary, and tertiary sectors) on economic growth in 19 developing countries over the

period 2005–2018. Variables such as human capital, domestic investment, and financial development, openness of the economy, labor force, and arable land were included as control variables. A robust two-step system generalized method of moments (GMM) was utilized for the analysis of the data. The study found that FDI's growth effect is indeed influenced by its sectorial composition in developing countries. The finding reveals that FDI in manufacturing has a positive and statistically significant influence on economic growth, whereas FDI in the tertiary sector has a statistically significant negative effect on economic growth, but FDI in the primary sector has a negative but negligible effect on economic growth. it can be concluded from the above results that the more manufacturing FDI that countries attract, the greater their economic growth will be. Based on this, the countries should provide special incentives like tariff reductions, tax holidays, and cheap-rented land supplies in order to attract more manufacturing sector FDI.

Makala (2025) investigate empirical Evidence of the Impact of FDI, Trade Openness, and Financial Development on Domestic Investment in Rwanda, the study investigates the influence of international trade channels on domestic investment in Rwanda from 1980 to 2020. The research employs a bivariate relationship to assess the impact of Foreign Direct Investment (FDI) on domestic investment, followed by an examination of the financial development and trade openness channels. Utilizing Ordinary Least Squares (OLS) as a baseline model and the Generalized Method of Moments (GMM) as an alternative technique, the findings reveal that FDI positively influences domestic investment levels only when FDI is substantial; otherwise, its effect may be crowded out. In contrast, a negative relationship is identified with the financial development channel. The study concludes that trade openness emerges as the most significant channel for enhancing domestic investment in Rwanda, providing valuable insights for optimizing strategies to leverage international trade and maximize the benefits of the country's natural resources.

Fantaye (2016) investigated the macroeconomic determinants of foreign direct investment (FDI) in Ethiopia using annual time series data spanning from 1982 to 2014. The study employed econometric techniques to assess both long-run and short-run relationships between FDI inflows and selected macroeconomic variables. The long-run results revealed that infrastructure development, potential economic growth, and trade openness had a positive and statistically significant impact on FDI, while inflation and human capital showed a negative and significant relationship. Conversely, in the short run, variables such as telephone penetration, gross fixed capital formation, trade openness, and

economic growth exhibited negative but statistically insignificant effects on FDI, whereas inflation and illiteracy rates were positively related and statistically significant. These findings suggest that while structural improvements and economic stability are key drivers of long-term investment, short-term FDI dynamics in Ethiopia may be influenced by irregular or context-specific factors. The study concludes with policy recommendations emphasizing the importance of enhancing infrastructure, ensuring macroeconomic stability, improving human capital, and promoting trade liberalization to support sustained FDI inflows.

Wondimu (2023) investigated the relationship between FDI and economic growth using time series data from 1992 to 2019. The research incorporates various explanatory variables, including trade openness, human capital, national savings, and gross capital formation, employing the Autoregressive Distributed Lag (ARDL) econometric model for analysis. Additionally, the study utilizes the Toda-Yamamoto Causality test to explore the direction of causality between economic growth and FDI. The findings of this study reveal that FDI has a positive and significant impact on economic growth both in the short run and long run, with a unidirectional causality identified from economic growth to FDI. These results underscore the importance of creating conducive environments for investment, particularly in remote and marginalized areas, to further enhance economic growth in Ethiopia.

Gidey (2020) published in the Horn of Africa Journal of Business and Economics investigated the effects of foreign direct investment (FDI) on Total Factor Productivity (TFP), exports, and employment in Ethiopia. Utilizing the Autoregressive Distributed Lag Model, the research examines both the short-run and long-run impacts of FDI. The findings indicate that, in the long run, FDI has a significant positive effect on TFP and employment; specifically, a 1% increase in the ratio of FDI to GDP corresponds to a 1.245% annual increase in TFP, while manufacturing employment rises by approximately 0.28%. However, in the short run, while the employment effect aligns with the long-term trend, FDI negatively impacts TFP. Furthermore, the study finds that FDI does not significantly affect the export sector in either the short run or long run. These results suggest that Ethiopia benefits from increased FDI inflows in terms of productivity and employment creation. The study results indicate that the government should persist in its efforts to attract FDI by fostering a conducive business environment and promoting export-oriented investments.

Gebremariam and Ying (2022) investigate the relationship between foreign direct investment (FDI) and export performance in Ethiopia, utilizing annual time series data from 1992 to 2018 and employing the autoregressive distributed lag (ARDL) model. The findings reveal that the relationship between FDI and export performance is insignificant in the long run. However, the analysis indicates that an increase in real GDP positively impacts export performance, and a depreciation of the real effective exchange rate enhances exports as well. Based on these results, the authors suggest that national economic policies should focus on maintaining overall economic health and achieving sustainable growth. Additionally, they recommend that long-term effects of exchange rate management be considered, and emphasize the importance of attracting foreign firms to engage in value addition activities for primary agricultural products to improve Ethiopia's export performance.

The empirical evidence presented above highlighted the diverse and complex impact of Foreign Direct Investment (FDI) on economic and financial outcomes in different regions of the world. While FDI has been shown to have a positive and significant impact on financial stability, economic growth, and productivity in many cases such as in Nigeria, Ethiopia, and the BRICS countries its effects are not uniform across all regions or sectors. For instance, FDI has been found to enhance financial development in Asia, Europe, and Latin America, but its impact is negative or negligible in Africa, particularly in the tertiary sector. Similarly, while FDI contributes to technological innovation and employment creation in some contexts, its influence on export performance and short-term productivity can be insignificant or even negative, as seen in Ethiopia and certain Latin American countries. These mixed results underscore the importance of context-specific factors such as institutional quality, trade openness, human capital, and sectoral composition in determining the effectiveness of FDI. Policymakers must therefore adopt tailored strategies to maximize the benefits of FDI while mitigating its potential risks, ensuring that it contributes to sustainable economic growth and financial stability across different regions.

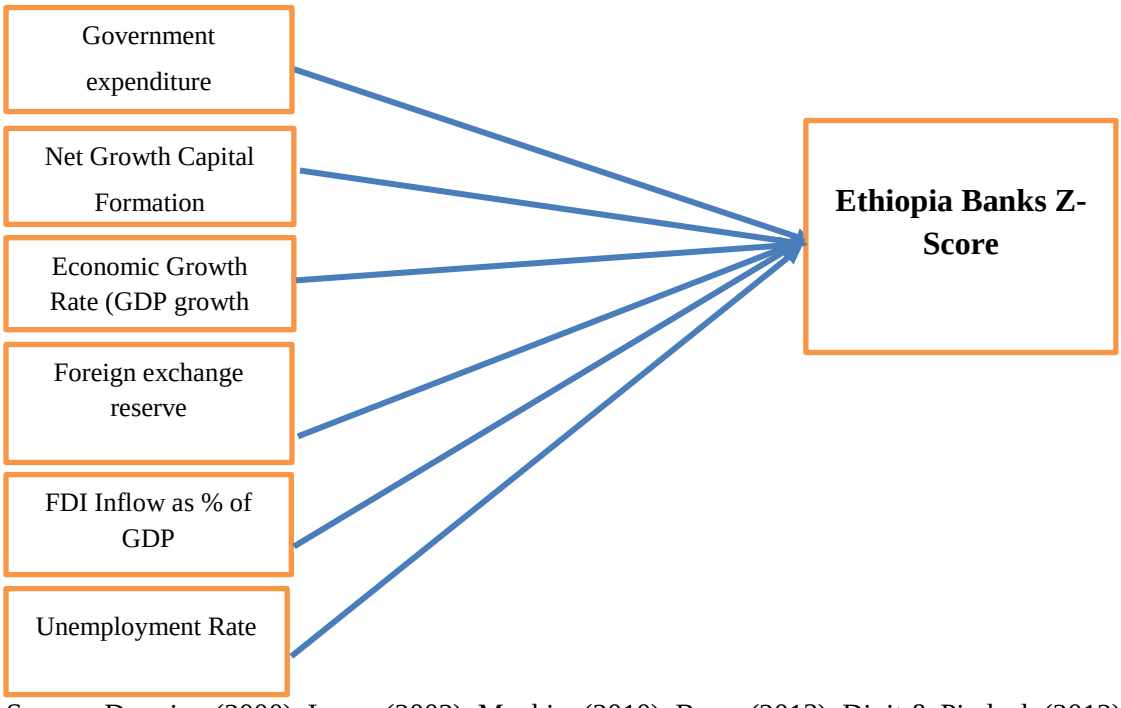
Table 2.1 Empirical studies summary table

Author(s)	Year	Variables Used	Methodology	Key Findings/Results
Vita & Kyaw	2009	FDI, economic growth, financial development	Literature synthesis	Financial development is a necessary absorption capacity for FDI to influence economic growth.
Sghaier & Abida	2013	FDI, financial development, technology diffusion	Empirical analysis on Sub-Saharan Africa	Technological benefits from FDI are realized only if financial systems reach a certain level of development.
Choong	2012	FDI, economic growth, financial sector development	Threshold regression	Financial development must reach a threshold before FDI significantly boosts economic growth.
Kaur et al.	2013	FDI, financial development, economic growth	Panel study (BRICS)	Developed financial markets enhance FDI benefits through better financial services.
Majeed, Wang & Zhang	2021	FDI, trade openness, inflation, government consumption, foreign development	FGLS, AMG, Dumitrescu–Hurlin panel causality	FDI boosts development in Asia, Europe, and Latin America but harms Africa. Inflation harms FD everywhere. Bidirectional causality found in Asia/Europe.
Bianco	2017	FDI, exchange rate volatility, price volatility, trade openness, human capital	GARCH model (1990–2012, Latin America & Caribbean)	Exchange rate volatility negatively affects FDI. Human capital and trade openness are essential.
Teixeira & Heyuan	2012	FDI, human capital, R&D, university collaboration	Logistic regression (firm survey)	Human capital indirectly attracts innovative FDI through R&D; university ties help but are not sufficient alone.
Gang-Gao	2021	GDP, human capital, R&D, FDI spillovers, technological innovation	Westerlund panel cointegration, AMG	FDI, GDP, and human capital positively influence technological innovation in BRICS economies.
Jonah, Ebire & Daniels	2022	FDI (% of GDP, net, % of fixed	ADF, Johansen	FDI (% of GDP) improves financial stability in Nigeria; other FDI metrics

		investment), financial stability	cointegration, ECM	negatively affect stability.
Nuru & Menza	2022	FDI by sector, economic growth, human capital, domestic investment, labor force, financial development, openness	Two-step system GMM	Manufacturing FDI significantly boosts growth; tertiary sector FDI has a negative effect.
Makala	2025	FDI, trade openness, financial development, domestic investment	OLS, GMM	FDI boosts domestic investment only at high levels; trade openness has the strongest effect.
Fantaye	2016	FDI, infrastructure, inflation, trade openness, economic growth, human capital	Time series econometrics (1982–2014)	Long-run: trade openness, infrastructure positive; inflation and human capital negative. Short-run results mixed.
Wondimu	2023	FDI, economic growth, trade openness, human capital, national savings, capital formation	ARDL, Toda-Yamamoto causality	FDI significantly improves growth; causality runs from growth to FDI.
Gidey	2020	FDI, TFP, employment, exports	ARDL model	Long-run FDI improves TFP and employment, but no effect on exports. Short-run TFP effect negative.
Gebremariam & Ying	2022	FDI, exports, real GDP, exchange rate	ARDL model (1992–2018)	FDI has no significant long-run impact on exports; GDP and exchange rate depreciation improve exports.

2.4 Conceptual Framework

This conceptual framework explores the interplay between foreign direct investment (FDI) and financial stability in Ethiopia. Financial stability defined an outcome influenced by FDI and a determinant shaping Ethiopia's attractiveness to foreign investors. FDI inflows (% of GDP) act as a primary driver, directly contributing to capital formation and technological advancement while introducing systemic risks and Key macroeconomic indicators GDP growth, government expenditure, Net growth capital formation, Unemployment rate and foreign exchange reserves mediate this relationship. For instance, GDP growth reflects economic conditions that either boost, while foreign reserves is against external vulnerabilities. Government expenditure signals fiscal policy priorities, influencing investor confidence and financial sector resilience finally NGCF shows that net increase in physical assets within an economy over a specific period. It is a crucial indicator of economic health and development. By mapping these interactions, the framework explains how Ethiopia's evolving financial landscape Addresses the dual challenges of leveraging FDI for growth and safeguarding stability, offering policymakers a holistic lens to balance these objectives.



Source- Dunning (2000), Lucas (2002), Mankiw (2010), Barro (2013), Dixit & Pindyck (2012)

Figure 2.1: Conceptual Framework

CHAPTER THREE

METHODOLOGY

3.1 Introduction

In this chapter efforts are made to explain how the research will accomplish its objective, what knowledge is required, what information is needed and how information is collected. Research methodology consists of research approach, sample design-sampling technique, sample size, source and instruments of data collection, methods of data analysis, ethical issues, validity and reliability of the research study.

3.2 Research Approach

Researcher may apply qualitative, quantitative or mixed approaches. Quantitative research, as described by Merwe (1996), is focused on testing theories, identifying facts, illustrating relationships between variables, and predicting outcomes. It employs methodologies from the natural sciences to ensure objectivity, generalizability, and reliability (Weinreich, 2009). The foundation of quantitative research is rooted in the positivism paradigm, which supports approaches grounded in statistical analysis. This includes strategies such as inferential statistics, hypothesis testing, mathematical exposition, experimental, randomization, blinding, structured protocols, and questionnaires with a limited range of predefined answers (Slevitch,2011).

Quantitative research measures variables and hypothesis. Variables have variations that can take numerous values while hypothesis are untested assumptions or propositions of relationship between variables. Hakansson (2013) made descriptive, experimental, correlational and casual comparative, which are the most frequently used research strategies under quantitative research. This study employed a quantitative research design to systematically examine the relationship between foreign direct investment (FDI) and financial stability in Ethiopia.

3.3 Research Design

Research design serves as a comprehensive blueprint that guides the entire research process, outlining the methods for data collection, participant selection, and analysis to effectively address the research questions (Leedy, 1997; MacMillan and Schumacher, 2001; and Kothari, 2008). It aligns the research objectives with the strategies for execution, ensuring the credibility and reliability of the study (Durrheim, 2004). In this study, explanatory research design is applied to investigate the nexus between Foreign Direct Investment and financial stability in Ethiopia. This design aims to explore the causal relationships between FDI inflows and financial stability, seeking to examine the extent of FDI's impact and provide explanations for its observed effects on the stability of the financial system.

3.4 Data Sources, Types and Variables

In this study, quantitative data will be utilized to assess the nexus between Foreign Direct Investment and financial stability in Ethiopia. The study analyzes the relationship between FDI and financial stability over time. Secondary data will be sourced from international financial institutions and official reports to ensure the accuracy and reliability of the findings. Data will be collected from national bank, International Monetary Fund and world Bank. This study uses macroeconomic variables influencing Ethiopia's financial system during the period from 2004 to 2023.

On the basis of the research objective, the study includes dependent and explanatory indicators such as economic growth, FDI inflow as a percent of GDP, Government Expenditure, Unemployment rate and foreign exchange to capture their influence on the dependent variable z-score. Individual variables that will be used in the study and their expected relationship is presented in the table below.

Table 3.1: Summary of the variables employed in the study

Variables	Measurement	Description	Expected Sign
Dependent variables			
Z-Score	A bank's capital adequacy and profitability in relation to the volatility of its earnings	Financial Stability	NA
Independent Variables			
FDI	FDI relative to a country's economic output.	FDI inflow as % of GDP	+
GDP	Percentage increase in a country's GDP over a specific period, adjusted for inflation to reflect real growth.	GDP growth	+
NGCF	monetary terms (e.g., billions of dollars) and can be presented as a percentage of GDP	NGCF as a Percentage of GDP	+
GE	Total public spending, often expressed as a percentage of GDP to assess fiscal policy impact.	Government Expenditure	+/−
FER	The total value of a country's liquid foreign assets held by the central bank.	Foreign exchange reserve	+
UNEMP	The percentage of the labor force that is unemployed and actively seeking work.	Percentage of the labor force	−

Source: Researcher

3.5 Data Analysis Method

The data analysis for this study adopts a comprehensive econometric approach to examine the relationship between Foreign Direct Investment (FDI) and financial stability in Ethiopia over the period 2004 to 2023. Descriptive statistics, including measures of central tendency, frequency distributions, and variability, are used to summarize key variables. Multiple linear regression analysis is employed to assess the influence of independent variables on financial stability, supported by diagnostic tests for normality, multicollinearity, homoscedasticity, and linearity. Pearson correlation analysis identifies the strength and direction of associations between variables. To ensure the robustness of results, the study addresses potential econometric issues such as endogeneity and serial correlation, applying robust standard errors and autocorrelation. Through this methodological framework, the study aims to generate reliable and actionable insights into the nexus between FDI and financial sector stability in Ethiopia.

3.6 Unit Root and Stationary Test

A unit root test tests whether a time series data is non-stationary and possesses a unit root. The null hypothesis is that there is a unit root and the alternative hypothesis is either stationary, trend stationary or explosive root depending on the test. In this study, the Augmented Dickey-Fuller (ADF), Phillips-Perron (PP), tests are used to determine if a data series has a unit root, indicating non-stationary, which is important to avert spurious outcomes. Spurious regression leads to fallacious results when the factors of regression lack constant means and variance (Gujarati 2003). In order to assess the panel unit root tests and identify the stationary of the series, the study applied the model specified below.

$$\Delta Y_t = \alpha + \delta T_t + \gamma Y_{t-1} + u_t \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (1)$$

Where:

- ΔY_t – is the change in the time series variable Y at time t.
- δT_t – is the deterministic component (trend, seasonal component, etc.)
- γY_{t-1} is the stochastic component, the coefficient γ indicates the strength and direction of this relationship.

- u_t is the stationary error process
- α The constant term (intercept) in the model.

3.7 Model Specification

This study employs a time series regression framework OLS regression with diagnostic tests to investigate the nexus of independent variables on financial stability in Ethiopia, using Z-Score as the dependent variable. The model aims to capture the temporal dynamics and structural changes within the Ethiopian economy over time. To ensure the accuracy and credibility of the regression results, the study rigorously tests the essential assumptions of multiple linear regressions, including linearity, the absence of multicollinearity, homoscedasticity of residuals, normality of error terms, and the absence of autocorrelation. The specified model is as follows:

$$Z - scoreit = \beta 0 + \beta 1FDIt + \beta 2EG + \beta 3NGCF + \beta 4UNEMPt + \beta 5GE + \beta 6FXR + \varepsilon t \ldots (2)$$

Where: Z-Score – Financial Stability

FDI – Foreign Direct Investment

EG- Economic Growth

NGCF- Net Growth Capital Formation

UNEMP- Unemployment Rate

GE- Government Expenditure

FX. R- Foreign Exchange Reserve

β_0: Intercept term (baseline Z-Score when all independent variables are zero).

ε_t: Error term (captures unobserved factors affecting Z-Score at time t).

3.8 Diagnostic Test for Multiple Linear Regressions

When conducting diagnostic tests for multiple linear regressions, the tests begin by verifying linearity between the dependent and independent variables. This assumption confirms that the relationship among variables follows a linear pattern. Next, Multicollinearity is then assessed to identify whether high correlations exist among explanatory variables. Following this, homoscedasticity is tested to ensure that the residuals maintain constant variance across all levels

of the independent variables. After addressing these issues, the normality of residuals is evaluated to confirm that the error terms are approximately normally distributed. For time-series data, autocorrelation is subsequently checked to ensure residuals are independent over time, as serial correlation can lead to underestimated standard errors and inflated significance levels.

3.8.1 Linearity Test

Linearity assumes that the relationship between the independent variables and the dependent variable is linear that is, the expected value of the dependent variable is a linear combination of the regression coefficients and the predictor variables. In simple terms, when plotted, the data points should roughly follow a straight-line pattern. This assumption implies that changes in the predictors lead to proportional changes in the outcome. Linearity is typically assessed using scatterplots of observed versus predicted values or residual plots to detect any systematic, non-random patterns that might suggest non-linearity.

3.8.2 Multicollinearity Test

A multicollinearity test will be conducted to identify and mitigate potential correlations among the variables under investigation. Multicollinearity arises when a regression model incorporates multiple variables that exhibit significant correlations not only with the dependent variable but also amongst themselves (Shrestha, 2020). This phenomenon involves substantial inter-correlations among predictors within a multiple regression framework. Such interdependencies can lead to biased or misleading results when researchers attempt to ascertain the efficacy of each predictor in forecasting or elucidating the response variable within a statistical model (Harrell, 2001). Various methodologies exist for detecting multicollinearity, with the primary techniques employed in this analysis being the correlation coefficient and the variance inflation factor (VIF). Both tests will be utilized to evaluate and address multicollinearity issues.

The Pearson correlation coefficient quantifies the strength and direction of linear relationships between variables (Shrestha, 2020). In this study, a Pearson correlation test will be performed to detect potential linear correlations, with any variable exhibiting a correlation coefficient exceeding 0.8 being excluded from the variable set. The Variance Inflation Factor (VIF) serves as a metric to evaluate the extent to which the variance of estimated regression coefficients is inflated due to correlations among independent variables (Keith, 2019; Shrestha, 2020). A lower

tolerance value, which is the reciprocal of VIF, indicates a heightened risk of multicollinearity among the variables. A VIF value of one denotes no correlation among the independent variables, whereas values slightly above one suggests moderate correlation, and significantly higher values indicate strong correlations (Keith, 2019; Shrestha, 2020).

3.8.3 Homoscedasticity test

The assumption of homoscedasticity refers to the expectation that the variance of the residuals (errors) remains constant across all levels of the independent variables (Osborne & Waters, 2002). In other words, it assumes that the errors are evenly and randomly distributed, regardless of the values of the predictor variables (Keith, 2006). This condition is visually supported when the spread of data points around the regression line remains consistent throughout the range of the independent variables. To assess this assumption, researchers typically examine residual plots, where residuals are plotted against predicted values. A random, pattern less spread in the residual plot suggests homoscedasticity. Additionally, formal statistical tests such as the Breusch-Pagan test and White's test are used to detect heteroscedasticity violations of this assumption by testing whether the variance of the residuals is dependent on the predictor variables.

3.8.4 Normality of Residuals

Normality of residuals is a key assumption in linear regression, stating that the residuals the differences between observed and predicted values should be normally distributed. This assumption underpins the validity of statistical inferences such as p-values, confidence intervals, and hypothesis tests. To assess normality, commonly use visual tools like Q-Q plots or statistical tests such as the Shapiro-Wilk test. While mild departures from normality are generally acceptable, significant deviations may require data transformation or the use of non-parametric or robust regression techniques.

3.8.5 Autocorrelation Test

Autocorrelation is a statistical method used to determine if there's a correlation between observations in a dataset at different time points. This test is crucial in time series analysis to ensure that the assumption of independent errors is not violated. It refers to the assumption that errors are independent of one another, implying that subjects are responding independently

(Stevens, 2009). Durbin- Watson statistic can be used to test the assumption that our residuals are independent (or uncorrelated). This statistic can vary from 0 to 4. For this assumption to be met, the DW value needs to be close to 2. Values below 1 and above 3 are problematic and cause for concern.

3.9 Ethical Consideration

This research complies with established ethical standards to ensure integrity, credibility, and responsible conduct. Utilizing secondary data, all information was sourced from publicly available, credible institutions such as the National Bank of Ethiopia (NBE), World Bank, UNCTAD, the IMF, and the Ethiopian Investment Commission (EIC), with proper citations so as to avoid plagiarism. The study-maintained objectivity and impartiality, reporting findings accurately without manipulation or bias, while complying with ethical guidelines on transparency and accountability. By providing clear methodologies and acknowledging limitations, the research aims to contribute to the academic and professional understanding of Foreign Direct Investment's impact on financial stability, upholding ethical rigor and scholarly responsibility.

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CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS

4.1 Introduction

This chapter presents and discusses the data analysis conducted to address the research questions and objectives, including descriptive analysis, correlation analysis, multiple regression, unit root tests, and diagnostic analysis. The secondary data is systematically organized to highlight key findings, with various tables and charts illustrating descriptive statistics such as means, standard deviations, frequencies, and percentages. Important findings from correlation and regression analyses are discussed, revealing relationships and predictive factors among variables, all performed using Stata 15 software.

4.2 Descriptive Statistics of the Finding

The results of the descriptive statistics reveal significant differences in the standard deviation, minimum, and maximum values of the studied variables, indicating diverse behaviors among the factors influencing the economy. The maximum mean value is observed in the Z-score (6.581), followed by Foreign Direct Investment (FDI) as a percentage of GDP (2.710). The minimum mean is recorded for the unemployment rate (0.485) and government expenditure (24.310).

Furthermore, there is notable variation among economic growth and government capital formation values, demonstrating contrasting parameters. For instance, economic growth ranges from 5.300 to 8.500, while net government capital formation varies from 21.800 to 28.000. The standard deviation is highest for government expenditure (2.812), indicating considerable variability, while the lowest standard deviation is noted for foreign exchange reserves (0.560). According to the descriptive statistics, the greatest deviation occurs in the Z-score (0.652), whereas the minimum variation is observed for the unemployment rate (0.313). These findings highlight the complexity of economic factors and their varying impacts, as summarized in Table 4.1.

Table 4.1: Descriptive summary

Variable	Observations (N)	Mean	Std. Dev.	Minimum	Maximum
ZSCORE	20	6.581	0.652	5.493	7.700
FDI (% of GDP)	20	2.710	0.792	1.200	3.000
Economic Growth (EG)	20	7.385	1.140	5.300	8.500
Government Expenditure (GE)	20	24.310	2.812	18.700	26.000
Net Government Capital Formation (NGCF)	20	25.505	2.648	21.800	28.000
Foreign Exchange Reserves (FXR)	20	5.835	0.560	4.720	6.500
Unemployment Rate (UNEMP)	20	0.485	0.313	0.100	0.800

The table presents descriptive statistics for seven variables; each measured across 20 observations. For Z Score, the mean is 6.58, the standard deviation is 0.65, suggesting moderate variability around the mean, while the minimum and maximum values range from 5.49 to 7.70, showing that all scores fall within a relatively narrow range. In terms of FDI the mean is 2.71, the standard deviation is 0.79, indicating some variation in FDI levels, with a range spanning from 1.20 to 3.00, demonstrating that some countries or periods experience significantly higher investments.

The Economic Growth (EG) variable has a mean of 7.39, suggesting a robust average economic growth rate. The standard deviation is 1.14, indicating variability in growth rates, with values ranging from 5.30 to 8.50, showcasing diverse growth experiences. For Government Expenditure (GE), the mean is 24.31, indicating a high level of government spending. The standard deviation of 2.81 suggests considerable variability in expenditure levels, with a range from 18.70 to 26.00, reflecting significantly higher spending in some observations. The Net Government Capital Formation (NGCF) has a mean of 25.51, suggesting strong government investment. The standard

deviation is 2.65, indicating variability in capital formation, with values ranging from 21.80 to 28.00, showing a solid range of investment levels. regarding Foreign Exchange Reserves (FXR), the mean is 5.84, indicating a stable average exchange rate. The standard deviation is 0.56, showing some fluctuations, with minimum and maximum values ranging from 4.72 to 6.50, reflecting moderate variability in currency values. Finally, the Unemployment Rate (UNEMP) has a mean of 0.49, indicating a low average unemployment level. The standard deviation of 0.31 reflects variability in unemployment rates, with values ranging from 0.10 to 0.80, indicating that some observations have significantly higher unemployment rates. Overall, these results provide a comprehensive overview of the data distribution for each variable, highlighting key metrics such as averages, variability, and ranges.

4.3 Unit Root Test

A unit root test in statistics is employed to determine whether a time series variable is non-stationary and exhibits a unit root, which suggests that it behaves like a random walk with drift. The null hypothesis of this test asserts that a unit root is present, while the alternative hypothesis indicates that the series is stationary. In essence, the test evaluates whether the series tends to drift away from its mean over time. Two widely used unit root tests are the Augmented Dickey-Fuller (ADF) test and the Phillips-Perron (PP) test, both aimed at assessing the stationarity of time series data. When the researcher uses variable names, It indicates that the variables are stationary at level, D for first difference and D2 for second difference they are stationary at 1^{st} and 2^{nd} difference respectively. The results of these tests are presented in Tables 4.2 and 4.3.

Table 4.2. Augmented Dickey-Fuller test for unit root

Variable	Statistics test	p-value	Conclusion
ZSCORE	-3.379	0.0117	Stationary
D2FDI	-4.150	0.0008	Stationary
DFXR	-6.583	0.0000	Stationary
DNGCF	-3.988	0.0015	Stationary
D2EG	-3.427	0.0101	Stationary
D2GE	-4.510	0.0002	Stationary
D2UNEMP	-4.753	0.0001	Stationary

The results of the Augmented Dickey-Fuller (ADF) test for unit roots indicate that all variables tested—ZSCORE, D2FDI, DFXR, DNGCF, D2EG, D2GE, and D2UNEMP are stationary. For ZSCORE, the test statistic is -3.379 with a p-value of 0.0117, providing evidence against the null hypothesis of a unit root. Similarly, D2FDI has a test statistic of -4.150 and a p-value of 0.0008, indicating strong stationarity. DFXR shows an even more pronounced result with a statistic of 6.583 and a p-value of 0.0000, further confirming stationarity. The variable DNGCF has a test statistic of -3.988 and a p-value of 0.0015, which also supports the conclusion of stationarity. For D2EG, the test statistic is -3.427 with a p-value of 0.0101, reinforcing the evidence against the presence of a unit root. D2GE and D2UNEMP also demonstrate stationarity, with test statistics of -4.510 and -4.753, respectively, and p-values of 0.0002 and 0.0001. Overall, the low p-values for all variables, which are all below the common significance level of 0.05, suggest that these time series do not have a unit root, indicating that their statistical properties remain constant over time.

Table 4.3. Phillips-Perron test for unit root

Variable	Statistic test	p-value	Conclusion
ZSCORE	-5.064	0.0000	Stationary
D2FDI	-8.066	0.0000	Stationary
DFXR	-6.650	0.0000	Stationary
DNGCF	-6.805	0.0000	Stationary
D2EG	-6.195	0.0000	Stationary
D2GE	-4.770	0.0001	Stationary
D2UNEMP	-4.894	0.0000	Stationary

The results of the Phillips-Perron test for unit roots indicate that all examined variables ZSCORE, D2FDI, DFXR, DNGCF, D2EG, D2GE, and D2UNEMP—are stationary. Each variable's test statistic falls significantly below the critical values, with ZSCORE recording a statistic of -5.064 and a p-value of 0.0000, confirming its stationarity. Similarly, D2FDI shows a statistic of -8.066 and a p-value of 0.0000, indicating it is also stationary. The remaining variables, including DFXR (-6.650), DNGCF (-6.805), D2EG (-6.195), D2GE (-4.770), and D2UNEMP (-4.894), all reflect strong evidence against the presence of a unit root, as evidenced

by their respective p-values, which are all below the conventional significance level of 0.05. Therefore, the test concludes that these variables do not exhibit a unit root, suggesting that their statistical properties remain constant over time.

4.4 Correlation Result

Correlation is a vital method for analyzing bivariate relationships, providing a benchmark to gauge the intensity or strength of the relationship. Bivariate analysis was performed between each independent variable and the dependent variable to identify significant predictors. Two significance levels were used in the correlation analysis: 0.05 and 0.01. the correlation coefficient reflects both magnitude and direction, meaning it can take on positive or negative values. The Pearson product-moment correlation is a widely used method for calculating this coefficient, resulting in a value between -1 and +1. A coefficient of ±1 indicates a perfect 1:1 relationship (either positive or negative), while 0 signifies no systematic relationship between the two variables. based on the magnitude of the correlation coefficient, a value between 0.70 and 0.90 indicates a very strong association, between 0.50 and 0.69 indicates a strong association, between 0.30 and 0.49 represents a moderate association, and between 0.10 and 0.29 reflects a low association.

Table 4.4 Correlation coefficient table

Variable	ZSCORE	FDI	EG	GE	NGCF	FXR	UNEMP
ZSCORE	1.0000	0.4980	0.4784	0.4418	0.1064	0.1621	0.2528
FDI	0.4980	1.0000	0.8976	0.9177	0.4262	0.8247	0.5499
EG	0.4784	0.8976	1.0000	0.6933	0.0570	0.7217	0.5296
GE	0.4418	0.9177	0.6933	1.0000	0.7342	0.8062	0.3173
NGCF	0.1064	0.4262	0.0570	0.7342	1.0000	0.4080	-0.1560
FXR	0.1621	0.8247	0.7217	0.8062	0.4080	1.0000	0.4423
UNEMP	0.2528	0.5499	0.5296	0.3173	-0.1560	0.4423	1.0000

This table presents the correlation coefficients among key economic variables using 20 observations. The correlation coefficient ranges from -1 to 1, indicating the strength and direction of the relationship between two variables. Positive values, closer to 1, suggest that the

variables move in the same direction, while negative values, closer to -1, indicate that they move in opposite directions. Values near 0 imply little or no linear relationship.

Key insights reveal the relationship of other variables with ZSCORE. For FDI (foreign direct investment), the correlation is 0.4980, indicating a moderate positive correlation, suggesting that as FDI increases, ZSCORE tends to increase. Similarly, EG (economic growth) has a correlation of 0.4784, reflecting a moderate positive relationship, meaning that higher economic growth is associated with a higher ZSCORE. GE (government expenditure) shows a correlation of 0.4418, implying that increased government expenditure is linked to higher ZSCORE values.

In contrast, NGCF (net government capital formation) has a weaker correlation of 0.1064, suggesting a minimal relationship with ZSCORE. The FXR (foreign exchange rate) shows a correlation of 0.1621, indicating a weak positive association with ZSCORE, while UNEMP (unemployment rate) has a correlation of 0.2528, suggesting that higher unemployment rates are somewhat related to higher ZSCORE values. overall, ZSCORE displays moderate positive correlations with FDI, EG, and GE, indicating that these factors are positively associated with the performance reflected by ZSCORE. The relationships with NGCF, FXR, and UNEMP are weaker, suggesting less influence on ZSCORE.

Notably, FDI and economic growth (EG) have a strong positive correlation of 0.8976, indicating that higher FDI is associated with higher economic growth. The correlation between FDI and government expenditure (GE) is even stronger at 0.9177, suggesting that increased government spending may help attract foreign investment. Additionally, FDI and foreign exchange reserves (FXR) have a strong positive link of 0.8247, implying that higher reserves are related to increased FDI inflows. furthermore, ZSCORE shows moderate correlations with FDI (0.4980) and EG (0.4784), indicating that both variables may positively influence financial sector stability. The correlation between NGCF and unemployment is -0.1560, hinting at a weak negative relationship that suggests greater investment may slightly reduce unemployment. Conversely, the correlation between unemployment and economic growth is 0.5296, indicating a moderate positive relationship, which may suggest that economic growth does not always lead to lower unemployment levels. these correlation results reveal important relationships among key

macroeconomic indicators. Notably, FDI, government spending, and foreign exchange reserves are closely linked, influencing policy targeting investment and stability.

4.5 Regression Analysis and Discussions

Regression analysis is a collection of statistical methods used to estimate the relationships between a dependent variable and one or more independent variables. It helps assess the strength of these relationships and model future interactions between the variables. Before performing regression analysis, five key assumptions for multiple linear regression must be tested: linearity, normality, multicollinearity, homoscedasticity, and autocorrelation. Meeting these assumptions is essential for accurately explaining the relationships between dependent and explanatory variables. This paper has examined the major least squares assumptions and confirmed that they were satisfied to a reasonable extent.

Table 4.5: Regression Table

Variable	Coefficient	Robust Std. Error	t-statistic	p-value	95% Confidence Interval
GE	0.995**	0.393	2.53	0.025	[0.147, 1.843]
FXR	-1.285***	0.351	-3.67	0.003	[-2.042, -0.528]
FDI	-0.914	1.294	-0.71	0.493	[-3.710, 1.882]
EG	-0.322	0.323	-1.00	0.336	[-1.020, 0.375]
NGCF	-0.516**	0.196	-2.63	0.021	[-0.939, -0.093]
UNEMP	-0.080	0.508	-0.16	0.877	[-1.176, 1.017]
Constant	7.945**	3.544	2.24	0.043	[0.289, 15.601]

- F-statistic (6,13): 7.61
- Prob > F: 0.0012
- R-squared: 0.6615
- Root MSE: 0.4589

Significance Levels:

- *** p < 0.01
- ** p < 0.05
- * p < 0.10

Confidence Intervals: 95% level

The regression analysis examines the relationship between the dependent variable ZSCORE and several independent variables, including FDI, EG, GE, NGCF, FXR (foreign exchange reserves), and UNEMP, using 20 observations. The model shows a statistically significant F-statistic of 7.61 with a p-value of 0.0012, and an R-squared value of 0.6615 indicates that approximately 66.15% of the variability in ZSCORE is explained by the independent variables. Coefficient estimates reveal that FDI has a coefficient of -0.914, indicating a non-significant relationship ($p = 0.493$), while EG also shows no significant effect with a coefficient of -0.322 ($p = 0.336$). In contrast, GE has a significant positive coefficient of 0.995 ($p = 0.025$), suggesting that increased government expenditure is associated with higher ZSCORE. NGCF shows a significant negative coefficient of -0.516 ($p = 0.021$), indicating a decrease in ZSCORE with increased net government capital formation. FXR has a significant negative coefficient of -1.285 ($p = 0.003$), implying that higher foreign exchange reserves are associated with lower ZSCORE. UNEMP shows a negligible impact with a coefficient of -0.080 ($p = 0.877$). Overall, significant predictors in this model include GE, NGCF, and FXR, highlighting their importance in explaining ZSCORE variability, while FDI, EG, and UNEMP do not significantly impact ZSCORE.

The existing studies shows similar results to this paper.

The role of financial stability in the relationship between foreign direct investments (FDI) and economic growth is critical for understanding how sub-Saharan African (SSA) economies can effectively leverage FDI. This study utilizes both stocks and annual inflows of FDI to establish the causal relationship between FDI and economic growth, while also assessing the moderating effects of financial stability. Employing the two-step system generalized method of moments (SGMM) estimator, the analysis includes annual data from thirty-four SSA economies spanning 2002 to 2021. The findings indicate that FDI contributes to economic growth in SSA only when accompanied by stable financial systems. Specifically, both FDI stocks and annual inflows are shown to drive economic growth solely in the context of financial stability. The importance of stable financial systems for sustaining economic growth in SSA is underscored, as their absence may transform potentially beneficial FDI into a detriment. This aligns with the results of Angmosi, Aboagye and Andoh, Charles (2023), they emphasize that without financial stability, the positive effects of FDI may be significantly diminished or even reversed.

In her 2015 study, Elizabeta Djambaska investigates the relationship between unemployment, foreign direct investment (FDI), and financial stability in the Republic of Macedonia, considering other factors such as population size and inflation. Using multiple linear regression analysis on annual data from 1999 to 2013, she finds that unemployment does not have a statistically significant impact on either FDI inflows or financial stability. Overall, Djambaska's findings suggest that unemployment does not play a significant role in influencing financial stability.

The existing literature underscores the critical role of government expenditures in fostering economic growth and ensuring financial stability. This finding aligns with Mulugeta Dereje's (2012) thesis on "The Impact of Government Expenditure on Economic Growth in Ethiopia," which employs time series data to investigate the relationship between various components of government spending and economic growth. Furthermore, the study highlights the importance of addressing issues such as quality, transparency, and accountability in public expenditures to channel unproductive funds into productive activities. Together, these insights suggest that effective government expenditure is essential not only for promoting economic growth but also for maintaining financial stability, thereby ensuring sustainable development in both regions.

4.6 Diagnostic Test for Multiple Linear Regressions

The diagnostic testing aimed at verifying the validity of the underlying statistical assumptions and ensuring the reliability of the estimated coefficients. While regression models are powerful tools for understanding relationships between variables, their effectiveness relies heavily on meeting key assumptions: linearity between independent and dependent variables, independence of errors, normal distribution of residuals, constant variance of errors, and the absence of multicollinearity among the predictors. Violations of these assumptions can result in biased estimates, inflated standard errors, and misleading conclusions.

Conducting diagnostic tests evaluates whether the data and model meet these conditions. For example, residual plots and the Breusch-Pagan test help assess homoscedasticity, while the Shapiro-Wilk or Jarque-Bera tests evaluate normality. The Variance Inflation Factor (VIF) is used to detect multicollinearity, and measures such as Cook's Distance, leverage, and DFBETAs identify influential data points or outliers that could disproportionately affect the model's results.

4.6.1 Linearity Test

The linearity test is used to determine whether the relationship between the independent variables and the dependent variable is linear, which is a key assumption in multiple linear regression. A linear relationship ensures that changes in the independent variables result in consistent, proportional changes in the dependent variable. To assess linearity, researchers commonly use scatter plots and residual plots. Scatter plots visually depict the relationship between each independent variable and the dependent variable; a roughly straight-line pattern suggests a linear relationship. Residual plots, on the other hand, involve plotting the residuals (differences between observed and predicted values) against the predicted values. If the residuals appear randomly scattered around the zero line without any clear pattern, the linearity assumption is likely satisfied. However, the presence of curves or systematic trends in the residuals may indicate a violation of this assumption, suggesting the need for model adjustments or variable transformations.

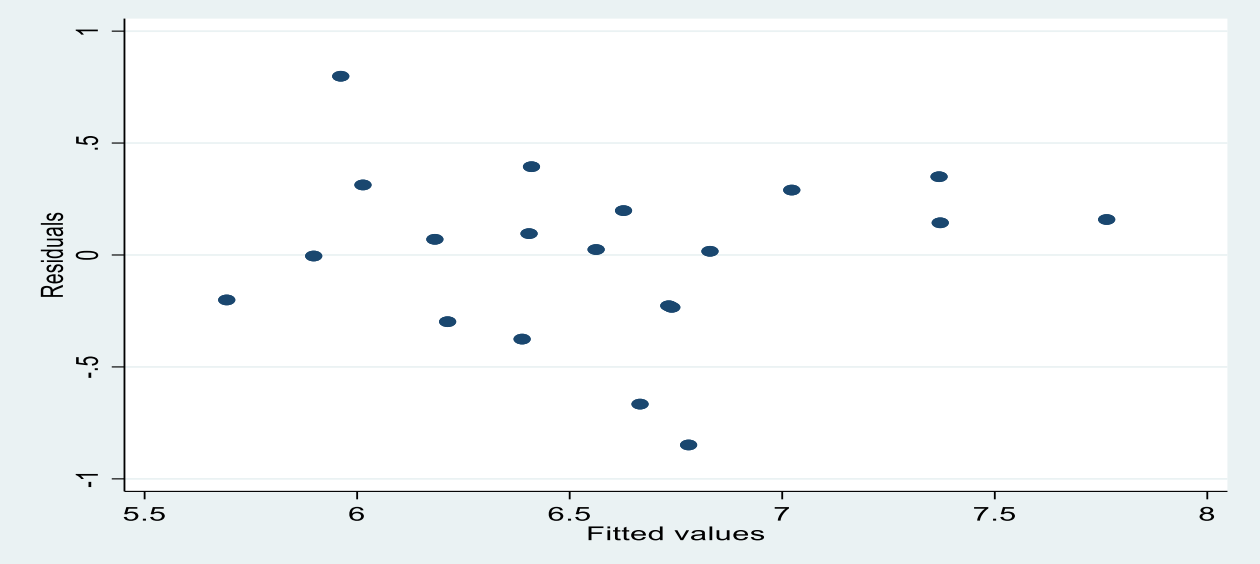

Figure 4.1: Residual vs. fitted values plot

The scatter plot displays the relationship between the residuals (on the vertical axis) and the fitted values (on the horizontal axis) from the regression model predicting ZSCORE. Residuals indicate the differences between the observed values and the predicted values, and analyzing their distribution is crucial for assessing the model's quality. In this plot, the residuals are

randomly dispersed around the horizontal line at zero, showing no identifiable pattern or systematic trend. This randomness suggests that the model effectively captures the linear relationship between the variables, adhering to the linearity assumption. Additionally, the spread of residuals is relatively consistent across all fitted values, supporting the homoscedasticity assumption, which states that the variance of errors remains stable throughout the range of predicted values. There is no evident non-random distribution of residuals that would indicate issues with model specification. Furthermore, the absence of extreme or isolated points suggests there are no significant outliers or influential data points that could skew the regression estimates. Overall, the residual plot indicates that the regression model is well-specified and meets essential assumptions, including linearity, homoscedasticity, and the lack of major outliers. This enhances the reliability of the regression results and supports valid statistical inferences, such as hypothesis testing and confidence interval estimation.

4.6.2 Multicollinearity Test

In multiple regression analysis, multicollinearity refers to a situation where two or more independent variables are highly correlated, meaning there is a linear relationship among them. This issue is specific to multiple regression, as simple regression involves only one predictor and is therefore unaffected. Multicollinearity can distort the estimated coefficients, making it difficult to determine the individual effect of each predictor on the dependent variable.

To detect multicollinearity, two commonly used statistics are Tolerance and the Variance Inflation Factor (VIF). Tolerance measures the proportion of a variable's variance that is not explained by the other independent variables in the model. A Tolerance value below 0.10 indicates a high degree of multicollinearity. VIF, which is the reciprocal of Tolerance (i.e., 1 divided by Tolerance), quantifies how much the variance of a coefficient is inflated due to multicollinearity. A VIF value greater than 10 is generally considered a cause for concern. In this analysis, all Tolerance values were above 0.10 and VIF values were below 10, indicating that multicollinearity is not a problem in the model.

Table 4.6: Multicollinearity Test

Variable	VIF	1/VIF
GE	4.80	0.2083

FDI	4.85	0.2062
EG	3.18	0.3145
NGCF	2.74	0.3650
FXR	3.84	0.2604
UNEMP	3.64	0.2708
Mean VIF	3.84	

The VIF (Variance Inflation Factor) values indicate the extent to which multicollinearity inflates the variance of regression coefficients. A VIF of 1 signifies no correlation, while values above 5 suggest potential multicollinearity issues. For the individual variables, GE (VIF: 4.80) and FDI (VIF: 4.85) are close to the threshold of 5, indicating moderate levels of multicollinearity that may warrant further investigation. In contrast, EG (VIF: 3.18), NGCF (VIF: 2.74), and FXR (VIF: 3.84) show lower risks of multicollinearity, with values generally considered acceptable. UNEMP (VIF: 3.64) also reflects a manageable level of multicollinearity. The mean VIF of 3.84 is below 5, suggesting that multicollinearity is not excessively high across the model. Overall, while multicollinearity does not appear to be a significant concern.

4.6.3 Homoscedasticity Test

The assumption of homoscedasticity means that the variance of the error terms remains constant across all levels of the independent variables (Osborne & Waters, 2002). Simply put, the errors should be evenly spread for every value of the predictor variables, so no specific data range shows more or less variability than others. This is reflected when the residuals consistently scatter around the regression line without changing their spread throughout the data range. When this pattern is observed, it indicates that the homoscedasticity assumption is satisfied across the model, suggesting that the regression results are reliable and unbiased.

Cameron and Trivedi's IM-Test Decomposition is a diagnostic method used to assess whether a regression model meets key assumptions, particularly focusing on error variance and distribution. The test breaks down potential model misspecifications into components such as heteroscedasticity (non-constant error variance), skewness (asymmetry in residuals), and kurtosis (the presence of heavy tails). By evaluating these components individually and jointly, the IM-

Test helps identify violations of classical linear regression assumptions, ensuring the model's validity and reliability.

Table 4.7 IM-Test Decomposition

Component	χ^2	Df	p-value	Interpretation
Heteroskedasticity	20.00	19	0.3946	No issue
Skewness	6.71	6	0.3483	Symmetric residuals (no skew)
Total	26.71	25	0.2759	Overall model assumptions satisfied

The results from Cameron & Trivedi's decomposition of the information matrix test (IM-test) indicate no violation of key regression assumptions. The heteroskedasticity component yields a test statistic of χ^2 (19) = 20.00 with a p-value of 0.3946, which is well above the 0.05 significance threshold. Therefore, we fail to reject the null hypothesis of homoscedasticity, confirming that the residuals maintain constant variance across the range of the predictors.

The skewness component shows χ^2 (6) = 6.71, with a p-value of 0.3483, suggesting that the residuals are symmetrically distributed and do not exhibit significant skew. The overall IM-test statistic is χ^2 (25) = 26.71, with a p-value of 0.2759, further supporting that the combined assumptions of homoscedasticity and residual normality are upheld. These findings collectively demonstrate that the multiple linear regression model satisfies essential OLS assumptions. The residuals behave appropriately in terms of variance and distribution, implying that the estimated coefficients are both unbiased and efficient. As such, no remedial action (e.g., variable transformation or weighted least squares) is required, and the statistical inferences drawn from the model are reliable and valid.

4.6.3 Normality of Residuals

The normality test is a statistical procedure used to determine whether a dataset is well-modeled by a normal distribution. In regression analysis, checking the normality of residuals is essential because many inferential statistics such as confidence intervals and hypothesis tests rely on this assumption. Ensuring that residuals are normally distributed supports the reliability and validity of the model's estimates and conclusions.

The Shapiro-Wilk W test for normality was conducted to examine whether the residuals are normally distributed. This test assesses the null hypothesis that the data are drawn from a normally distributed population. A non-significant result ($p > 0.05$) indicates that the assumption of normality is not violated. Therefore, if the test yields a high p-value, we can conclude that the residuals are approximately normally distributed, supporting the validity of statistical inferences drawn from the regression model.

Table 4.8: Normality of Residuals

Variable	Obs	W	V	Prob>	Z
residuals	20	0.97018	0.706	-0.702	0.75874

The Shapiro-Wilk test was conducted to evaluate whether the residuals from the regression model follow a normal distribution, with the null hypothesis (H_0) stating that the residuals are normally distributed and the alternative hypothesis (H_a) suggesting non-normality. The test yielded a statistic (W) of 0.97018, which falls very close to the maximum value of 1. This indicates strong alignment with a normal distribution, as values approaching 1 signify better conformity to normality. The p-value of 0.75874 substantially exceeds the conventional 0.05 significance threshold, providing no statistical evidence to reject the null hypothesis. Consequently, we conclude that the residuals satisfy the normality assumption required for ordinary least squares (OLS) regression. This result has important implications for the validity of the regression analysis. First, it confirms that statistical tests on the coefficients including t-tests for individual predictors and the overall F-test are reliable and accurately reflect the relationships in the data. Second, confidence intervals and p-values derived from the model can be trusted for inference and decision-making. Finally, the absence of non-normality means no corrective measures such as variable transformations, robust standard errors, or non-parametric methods—are necessary to address distributional concerns. The model meets this critical OLS assumption, supporting the use of standard interpretation and reporting practices.

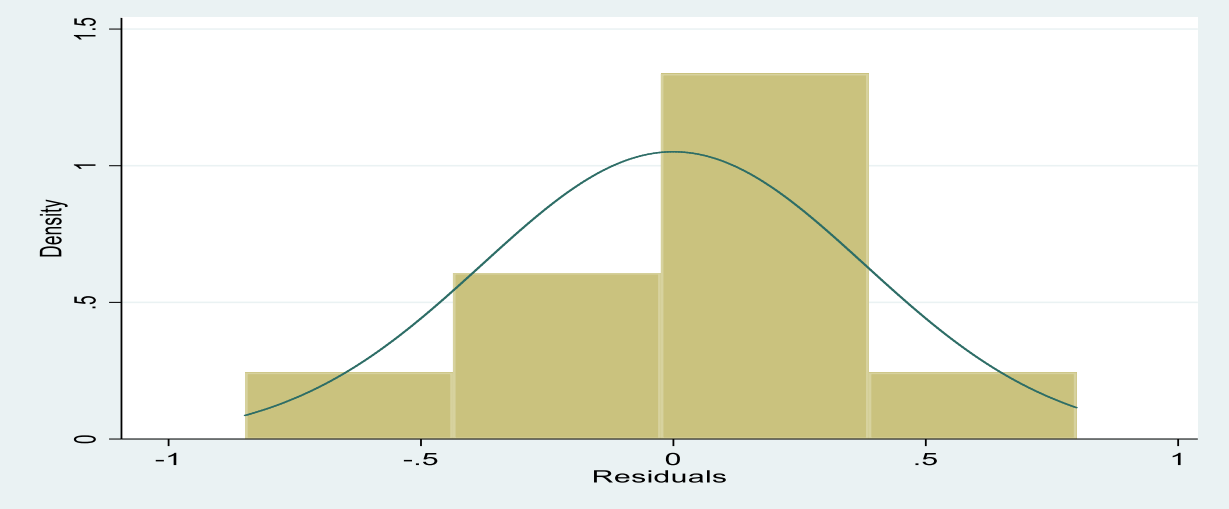

Figure 4.3: Residual Density Plot

The density plot of regression residuals displays values along the horizontal axis ranging from -1 to 1, with marked reference points at -1, -0.5, 0, 0.5, and 1 (noting that "-5" likely represents a typographical error for -0.5). The vertical axis quantifies the probability density of these residuals, where peaks indicate regions of highest residual concentration. The distribution appears approximately symmetric around zero, suggesting the absence of significant skewness. This symmetry is further evidenced by the balanced tails on both sides of the center. The highest density occurs near zero, indicating that the model's predictions are frequently close to the actual observed values a hallmark of reasonable predictive accuracy. Residuals are primarily concentrated between -1 and 1, reflecting moderate dispersion without extreme outliers in the observed range. These visual characteristics strongly corroborate earlier statistical tests for normality. The Shapiro-Wilk test ($W = 0.97$, $p = 0.76$) confirmed no deviation from normality, while the IM-test for skewness ($p = 0.35$) validated residual symmetry. The peak at zero aligns with the model's adequate fit, though the moderate spread suggests potential for refinement by incorporating additional predictors or non-linear terms.

For the regression model, these results imply that OLS assumptions are fully satisfied. The residuals meet both normality and homoscedasticity requirements, ensuring coefficient estimates are unbiased and efficient (BLUE properties).

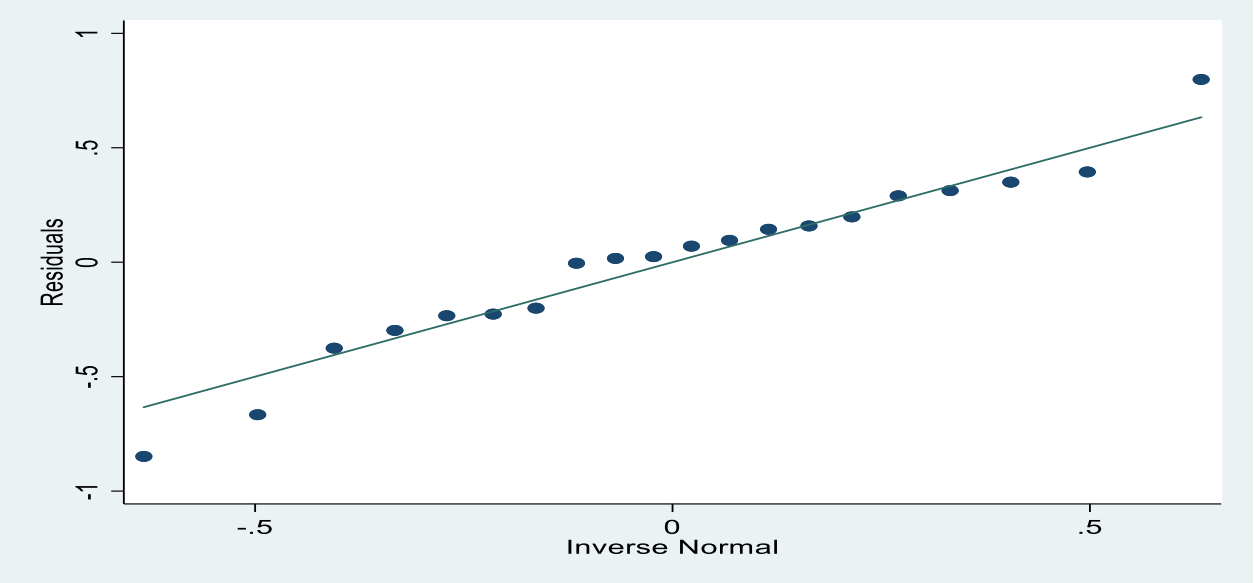

Figure 4.4: Q-Q plot

The Q-Q plot of residuals illustrates the relationship between the residuals from your regression model and the theoretical quantiles from a normal distribution. On the x-axis, you see these theoretical quantiles (Inverse Normal), while the y-axis displays the actual residuals. The green line represents the expected position of points if the residuals were perfectly normally distributed. In this plot, the points closely follow the green line, particularly in the central region, indicating that the residuals are approximately normally distributed. However, there are slight deviations at the tails, where the points at both the lower and upper ends diverge from the line, suggesting minor departures from normality. Overall, the QQ plot indicates that the residuals meet the assumption of normality, which is favorable for regression analysis; yet, the slight deviations in the tails should be monitored, as they could impact model assumptions, although they do not appear to be severe.

4.6.4 Autocorrelation Test

Autocorrelation, or the independence of errors, refers to the assumption that the residuals (errors) from a regression model are independent of one another. This means that the errors associated with one observation should not influence the errors of another, implying that subjects are responding independently. Violations of this assumption can lead to biased estimates and unreliable statistical inferences, as correlated errors can artificially inflate the significance of predictors.

To test for autocorrelation, the Durbin-Watson (DW) statistic is commonly used. This statistic ranges from 0 to 4, with a value around 2 indicating that the residuals are independent and uncorrelated. Values significantly lower than 2, particularly below 1, suggest a strong positive autocorrelation, indicating that errors are correlated in a positive manner. Conversely, values above 2, especially those exceeding 3, indicate negative autocorrelation, which can also be problematic.

When the DW statistic falls outside the acceptable range, it raises concerns about the validity of the regression model and the reliability of its coefficients. In such cases, it may be necessary to explore potential solutions, such as incorporating lagged variables, using generalized least squares, or adjusting the model to account for the autocorrelation. Ensuring that the independence of errors assumption is met is essential for the robustness and credibility of regression analysis results.

Table 4.9: Autocorrelation Test

Test	**(k, n)**	**d-statistic**
Durbin-Watson Test	(7, 20)	2.539888

The Durbin-Watson Test, with degrees of freedom (7, 20), produced a d-statistic of 2.539888. This value indicates slight negative autocorrelation in the residuals. Generally, a d-statistic close to 2 suggests that there is no significant autocorrelation present. Values below 2 would indicate positive autocorrelation, while values above 2 suggest negative autocorrelation. Given that the d-statistic is approximately 2.54, it implies that autocorrelation is not a major concern in this model, which is favorable for the overall validity of the regression analysis.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATION

5.1 Introduction

In this section, the researcher provides a summary of the findings to inform readers about the key insights gained from the study, which aimed to investigate the nexus between Foreign Direct Investment and financial stability in Ethiopia. The analysis and discussion yielded several significant findings, and this chapter presents a comprehensive overview of those findings, along with conclusions and practical recommendations. Additionally, it highlights the study's major contributions to the existing body of knowledge and offers suggestions for future researchers, all grounded in the established objectives.

5.2 Summary and Conclusion of the Findings

On the basis of the comprehensive analysis of Ethiopia's macroeconomic data from 2004 to 2023, this study investigates the relationship between Foreign Direct Investment and financial stability. The findings reveal that FDI inflows, expressed as a percentage of GDP, do not exhibit a statistically significant direct relationship with financial stability ($\beta = -0.9139$, $p = 0.489$). This indicates that FDI alone is insufficient to enhance or destabilize Ethiopia's financial sector. However, strong correlations were found between FDI and key economic indicators: Economic Growth ($r = 0.8976$) and Government Expenditure ($r = 0.9177$), suggesting that FDI influences financial stability indirectly through these channels.

The analysis also highlights the significant role of Government Expenditure (GE), which positively affects financial stability ($\beta = 0.9949$, $p = 0.017$), demonstrating that targeted fiscal policy interventions can strengthen the resilience of the banking sector. Conversely, both Net Growth Capital Formation (NGCF) and Foreign Exchange Reserves (FXR) negatively impact financial stability, with NGCF showing $\beta = -0.5158$ ($p = 0.018$) and FXR at $\beta = -1.2850$ ($p = 0.004$). These results indicate that inefficient capital allocation and improper reserve management may expose the financial sector to stability risks.

The study found that unemployment and economic growth were statistically insignificant in affecting financial stability, highlighting that these factors may not directly determine the stability of the financial system in Ethiopia during the study period. The regression model explains approximately 66.15% of the variance in financial stability ($R^2 = 0.6615$), confirming the robustness of the findings.

In conclusion, while FDI may not directly ensure financial stability in Ethiopia, it plays a crucial indirect role by promoting economic growth, encouraging technological advancement, and supporting public investment. This relationship is supported by both theoretical foundations, such as endogenous growth theory, and empirical evidence from prior studies. The relationship between FDI and financial stability is largely mediated by the strength of Ethiopia's absorptive capacities, particularly the development of its financial sector (mainly banking sector) and the efficiency of government capital allocation. To enhance the stabilizing effect of FDI, policymakers should prioritize attracting high-quality, sector-specific FDI, especially in manufacturing and technology-intensive industries, which have been shown to yield stronger economic spillovers. Additionally, improving the efficiency and transparency of government expenditure will help amplify the benefits of FDI while minimizing fiscal inefficiencies. Addressing structural challenges related to Net Growth Capital Formation (NGCF) and managing Foreign Exchange Reserves (FXR) more strategically will further reduce macro-financial vulnerabilities. By aligning FDI policies with strategic sectoral priorities and strengthening macroeconomic management, Ethiopia can more effectively leverage FDI as a catalyst for both sustainable growth and financial sector stability.

5.3 Recommendations

On the basis of the findings of this study, the following recommendations are made to enhance financial stability in Ethiopia. First, the government and stakeholders should focus on attracting high-quality Foreign Direct Investment (FDI) that promotes technology transfer and skills development. This requires strong commitment from policymakers to create a conducive environment for investments in high-value sectors like manufacturing and technology. Efficient management of government expenditure is also essential to bolster financial stability. It is recommended to establish a robust regulatory framework that promote transparency and protect

investor rights will help build investor confidence. Ethiopian Banks should improve capital allocation strategies and adopt best practices in financial management to mitigate vulnerabilities.

5.4 Areas for Future Research

Future research should focus on the relationship of additional macroeconomic variables, such as inflation rates, interest rates, and trade balances, on financial stability. Investigating the interaction between domestic investment and foreign direct investment (FDI) could reveal strategies to maximize their benefits. Additionally, examining the influence of sector-specific policies and socio-political factors on financial stability can offer valuable insights for effective policymaking. By pursuing these research directions, Ethiopia can strengthen its financial sector and promote sustainable economic growth.

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Appendix

This research use this data sourced from well-known international financial institutions, including the World Bank, the International Monetary Fund (IMF), and the National Bank of Ethiopia. To ensure the analysis employs stationary data, some variables have been adjusted, with numbers transformed into their first and second differences as necessary. The analysis has been conducted using Stata 15 software.

YEAR	ZSCORE	FDI	EG	GE	NGCF	FXR	UNEMP
2004	5.49	1.20	5.10	18.50	22.10	5.02	0.80
2005	6.80	1.50	6.00	19.20	21.80	4.70	0.60
2006	5.89	1.80	6.50	20.10	22.00	5.39	0.40
2007	5.92	2.00	7.20	21.30	22.50	5.57	0.20
2008	7.31	2.30	7.80	22.40	23.00	5.23	0.10
2009	6.33	2.60	8.10	23.00	23.50	5.98	0.30
2010	6.00	2.10	6.90	22.80	24.00	5.78	0.20
2011	7.52	2.90	7.50	24.20	24.20	5.50	0.40
2012	6.59	3.20	8.00	25.00	24.50	6.28	0.60
2013	6.51	3.50	8.50	26.10	25.00	6.44	0.80
2014	7.92	3.80	9.00	27.30	25.50	6.02	1.00
2015	6.85	4.00	9.20	28.00	26.00	6.89	1.10
2016	6.51	3.70	8.70	27.50	26.50	6.72	0.90
2017	7.72	3.50	8.30	27.00	27.00	5.90	0.70
2018	6.50	3.20	7.90	26.50	27.50	6.39	0.50
2019	6.25	3.00	7.50	26.00	28.00	6.22	0.40
2020	5.93	2.80	7.00	25.50	28.50	5.45	0.20
2021	6.83	2.00	5.50	24.80	29.00	5.78	0.10
2022	6.76	2.40	6.20	25.20	29.50	5.94	0.10
2023	6.01	2.70	6.80	25.80	30.00	5.50	0.30