THE EFFECTS OF FOREIGN DIRECT INVESTMENT, EXTERNAL DEBT STOCK, AND MERCHANDISE TRADE ON BANK STABILITY IN KENYA

SHADRACK K. NYOBII

A RESEARCH PROPOSAL SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER'S IN BUSINESS ADMINISTRATION AT STRATHMORE BUSINESS SCHOOL, STRATHMORE UNIVERSITY

NAIROBI, KENYA

DECEMBER 2024

DECLARATION

I declare that this work has not been previously submitted and approved for the award of a degree by this or any other university. To the best of my knowledge and belief, the Research Proposal contains no material previously published or written by another person except where due reference is made in the Research Proposal itself.

Shadrack K. Nyobii

.....

(MBA/051200)

16th December 2024

Approval

The Research Proposal of Shadrack Nyobii was reviewed and approved by:

Dr. Erastus Mbithi

.....

Lecturer, Strathmore University

ABSTRACT

The interconnectedness of global economies, evidenced by events such as the COVID-19 pandemic, Brexit, financial crises, and the Arab Spring, has necessitated a reassessment of the established theories linking macroeconomic indicators. These phenomena have not only affected international markets but have also prompted a re-evaluation of the economic resilience of local economies. This study investigates the extent to which foreign-oriented economic indicators can safeguard local economies and inform their engagement in international trade and investment. Specifically, the research aims to (1) assess the effect of foreign direct investment (FDI) on the financial stability of banks in Kenya, (2) evaluate the influence of external debt stock on the financial stability of banks in Kenya, and (3) examine the effect of merchandise trade on the financial stability of banks in Kenya. Drawing on economic theories that explicate the relationship between international economic engagement and domestic financial stability, the study employs an Ordinary Least Squares (OLS) regression model to analyze data from the World Bank and the Central Bank of Kenya. The findings indicate that external debt stocks and the expansion of commercial bank branches significantly enhance the bank capital to assets ratio, a key indicator of financial stability. Conversely, FDI net inflows and merchandise trade showed limited direct impact on bank stability. These results suggest that while external debt and banking network expansion are critical for bank stability, the benefits of FDI may be indirect, and high levels of merchandise trade may introduce vulnerabilities. The implications of this study are significant for policymakers, regulators, bank management, and academicians. Policymakers are encouraged to create an enabling environment for effective external debt utilization and strategic banking infrastructure expansion. Regulators should emphasize robust capital buffers and prudent debt management. Bank management should focus on strategic branch expansion and risk mitigation. Academicians are provided with a foundation for further research into the nuanced impacts of FDI and merchandise trade. This study provides empirical evidence to guide the development of strategies that promote economic expansion through international trade and investment while maintaining the stability of domestic banking institutions.

Key Words

Foreign direct investment (FDI), external debt, merchandise trade, bank stability, financial stability, Kenyan economy, macroeconomic indicators, economic growth, and risk management.

DEFINITION OF TERMS

Foreign Direct Investment (FDI) refers to cross-border investments made by foreign entities to acquire ownership or controlling stakes in domestic business enterprises. Typically, a minimum of 10% ownership of voting stock is used as the threshold to classify such investments as FDI (World Bank, 2022). In this study, FDI is measured as the sum of equity capital, reinvested earnings, and other capital contributions reported in United States Dollars.

External Debt encompasses all financial obligations owed by a country to external creditors, including foreign governments, private lenders, and international organizations such as the International Monetary Fund (IMF). It includes long-term debt (both public and private) as well as short-term debt and IMF credit (World Bank, 2022). For this study, external debt is treated as a stock variable and is measured in United States Dollars.

Merchandise Trade represents the total value of a country's physical goods traded internationally, calculated as the sum of exports and imports expressed as a percentage of Gross Domestic Product (GDP). This metric reflects the extent of a country's participation in global trade, a critical indicator of its economic orientation (World Bank, 2022).

Bank Stability is defined as the ability of banking institutions to maintain operations and solvency under economic or financial stress. In this study, it is assessed using the capital adequacy ratio, which measures the ratio of a bank's capital to its risk-weighted assets (Central Bank of Kenya, 2022).

Macroeconomic Indicators are key statistical measures that summarize the overall performance of an economy. This study focuses on FDI, external debt, and merchandise trade as critical macroeconomic indicators influencing the stability of banks in Kenya (World Bank, 2022; CBK, 2022).

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ACRONYMS

BCAR: Bank Capital to Assets Ratio

BLR:BAR: Bank liquid reserves to bank assets ratio (%)

BNL:TGL - Bank nonperforming loans to total gross loans (%)

CBB: Central Bank Balance

CBK: Central Bank of Kenya

EDS: External Debt Stock

FDI: Foreign Direct Investment

FDI: Foeign Direct Investment

GDP: Gross Domestic Product

IFF – Illicit Financial Flows

IMF – Internatinal Monetary Fund

USD – United States Dollar

CHAPTER ONE
INTRODUCTION

1.1 Background of The Study

Bank stability is a cornerstone of economic growth and individual financial wellbeing, essential for maintaining consumer confidence, ensuring the efficient allocation of resources, and safeguarding against systemic risks (Kaufman, 2018). The urgency of addressing bank stability has been heightened by both historical precedents and recent events, as evidenced by Ozili (2018) who outlines the intricate determinants of banking stability in the African context. The collapse of banks not only erodes trust but can unravel the economic fabric of society—a fact that is no stranger to Kenya's own landscape (Muriithi & Louw, 2017).

Global economic turbulence has often precipitated the downfall of banking institutions, with repercussions felt across international borders. The fall of major banks during the 2008 global financial crisis serves as a testament to this vulnerability (Krugman, 2009). More recently, the COVID-19 pandemic has exposed the interconnectedness and fragility of financial systems, emphasizing the need for robust banking sectors resilient to both global and local shocks (Fernandes, 2020).

Within Kenya, the significance of bank stability is underscored by a series of bank failures that have had substantial impacts on the economy. Muriithi and Louw (2017) note the challenges faced by the Kenyan banking industry, including the collapse of local banks, which highlights the immediate need for research into sustainable banking practices.

The nexus between economic expansion and bank stability, particularly in the context of foreign direct investment (FDI), is both intricate and multifaceted. While FDI has been associated with robust economic growth and macroeconomic policies, contributing significantly to the resilience of banking institutions (Odhiambo, 2022), there remains a critical question: Is an increased reliance on broadened economic markets the most expedient strategy for enhancing the stability of banks in Kenya? This study is motivated by the need to address this question, among others, in light of

recent bank collapses both globally and locally, which have highlighted the risks of unstable banking practices.

Empirical findings further justify the focus on bank stability, highlighting its impact on the broader economy. Studies such as Berger and Bouwman (2013) provide empirical evidence that banks with higher capital buffers and robust risk management practices are better positioned to weather financial shocks, thereby contributing to overall economic stability. Furthermore, research by Haldane and May (2011) illustrates how network effects within the banking sector can amplify risks, suggesting that the stability of individual institutions has far-reaching implications for the global financial system.

The connection between broadened economic markets through factors such as Foreign Direct Investment (FDI) and the stability of banks in Kenya is complex and multifaceted. Increased FDI, attributed to strong economic growth and sound macroeconomic policies, as noted by Odhiambo (2022), can significantly enhance the stability of banks. Economic growth often leads to increased business activities, creating more opportunities for banks to offer loans and financial services. This can lead to higher profits and reserves, contributing to the banks' overall stability. Additionally, prudent macroeconomic policies can foster a stable economic environment, reducing risks associated with currency fluctuations, inflation, and other factors that can negatively impact bank stability. The question that then begs, among others, is whether the push towards reliance on broadened economic markets is the most expedient way to achieve improved economic performance of banks domiciled in Kenya.

The foregoing section therefore underscores the importance of regulatory frameworks and internal bank policies in maintaining stability, as well as the potential consequences of failure in these areas (Acharya et al., 2012). The empirical evidence thus supports the notion that enhancing bank stability is paramount for preventing financial crises and ensuring sustainable economic growth. The current study’s focus on FDI, external debt stock and merchandise trade is thus intended to serve as contributory to the broader push to identify international-oriented metrics as pivotal to the outcome of bank stability in Kenya; the study is thus exploratory in that sense.

In essence, this study seeks to contribute to the ongoing discourse on banking stability, addressing the lacunae in the literature, and proposing ways to buttress banking systems against the ebb and flow of global financial currents. The gravity of bank stability, illustrated by the recent collapse of banks, both internationally and within the Kenyan banking sector, accentuates the relevance and urgency of this research.

1.1.1 Banking Sector in Kenya

This research investigates bank stability, a key indicator of the banking sector's health. Bank stability reflects a state where financial metrics – capital adequacy, asset quality, liquidity, and effectiveness – meet predetermined thresholds. These thresholds signify a bank's capacity to withstand adverse market conditions (Central Bank of Kenya, 2022). The Central Bank of Kenya (CBK) employs these metrics, known collectively as core bank stability metrics, to evaluate the overall stability of banks.

As of 2022, there were 39 banks in Kenya nine of which are ranked as tier one banks; these command 75.14% of the market share. The banking sector in Kenya has witnessed similar challenges as those witnessed globally, with certain banks experiencing financial distress. These events have ignited discussions around the causes and effects of bank instability, highlighting the need for robust regulatory frameworks and sound risk management practices. The relationship between foreign investment in banks and their stability is a particularly contentious issue, with studies presenting contrasting views on whether foreign capital inflows contribute to or undermine stability (Agyapong & Bedjabeng, 2020).

According to the Central Bank of Kenya's 2022 annual report, Kenya's banking sector demonstrated strong stability and resilience throughout the year. The report reveals that the sector maintained a capital adequacy ratio of 19.0 percent, significantly surpassing the minimum requirement of 14.5 percent. Furthermore, the liquidity ratio averaged 50.8 percent, far exceeding the statutory minimum of 20 percent. These figures reflect a stable banking environment, with total net assets and customer deposits experiencing notable growths of 9.4 percent and 7.0 percent, respectively, from the previous year. Such performance indicators suggest a well-capitalized, liquid,

and stable banking sector capable of withstanding financial shocks, thereby contributing to the overall stability of Kenya's financial system (CBK, 2022). The quest that therefore begs is how to maintain this stability or improve it amidst a weakening Kenya shilling amongst other macroeconomic determinants (CBK, 2023) – this study addresses this concern.

1.1.2 International Financial and Trade Factors

Three independent variables are considered, following exposition of literature, as potentially effectful to the financial stability of banks – Foreign Direct Investment (FDI), external debt stock, and merchandise trade. The justification for selection of these factors, despite their prior extensive featuring in macroeconomic research, is presented in a subsequent section of this paper – literature review.

Foreign direct investment (FDI) refers to direct ownership stakes acquired by foreign investors in a country's businesses (World Bank, 2022). It's calculated as the total sum of equity capital, reinvested earnings, and other capital contributions. This cross-border investment signifies a substantial level of control or influence by the foreign entity over the management of the enterprise (World Bank, 2022). Generally, a minimum ownership of 10% of voting stock is considered the threshold for establishing a direct investment relationship (World Bank, 2022).

External debt refers to the financial obligations a country owes to foreign entities, repayable through currency, goods, or services. This measure includes the total amount of public, publicly guaranteed, and private non-guaranteed long-term debts, along with borrowings from the International Monetary Fund (IMF) and short-term debts. Short-term debt encompasses liabilities with an original maturity of one year or less, as well as overdue interest payments on long-term debt.

Merchandise trade, calculated as a percentage of GDP, represents the sum of merchandise exports and imports divided by the GDP value. These metrics are expressed in United States Dollars (USD) (World Bank, 2022). This measure serves as a key indicator of a country's level of economic integration with the global market. This metric essentially captures the total value of a nation's physical goods traded (exports plus imports) and expresses it as a proportion of its overall economic output,

measured in GDP. The calculation is standardized in United States Dollars (USD), which facilitates global comparison by using a common currency benchmark. This ratio offers profound insights into the economic orientation and health of a nation. A higher ratio indicates a strong reliance on international trade, suggesting that a country's economic fortunes are closely tied to its trade dynamics. It points towards an economy that is outward-looking, engaging extensively in the exchange of goods across borders. Conversely, a lower ratio might suggest a more insular economic stance, with a greater focus on domestic production and consumption (World Bank, 2022).

1.1.3 The Economy of Kenya

Kenya represents a pivotal focus for this study due to its unique economic and banking sector dynamics. The Kenyan banking sector's exposure to international financial and trade factors, coupled with its significant informal employment and underemployment rates, provides a distinctive context for analyzing the effect of foreign direct investment (FDI), external debt, and merchandise trade on bank stability (Awe et al., 2021).

The high rate of employment in the informal sector in Kenya, as highlighted by Awe et al. (2021), presents both challenges and opportunities for banks. On the one hand, the informal sector's dominance may limit the traditional banking sector's reach, as individuals and businesses in this sector often lack the formal documentation required for banking services. This can constrain banks' ability to grow their customer base and loan portfolios. On the other hand, innovative banking solutions tailored to the needs of the informal sector can unlock new markets and revenue streams, potentially enhancing stability through diversification of income sources. Moreover, the variability in Kenya's GDP growth rates and the Kenyan Shilling's depreciation highlight the economy's sensitivity to external economic factors (World Bank Group, 2023; Cytonn Investments, 2021).

These conditions underscore the necessity of a context-specific investigation to address the research objectives, making Kenya an ideal case study for examining the nuanced interplay between international economic indicators and banking sector stability.

1.2 Problem Statement

The financial stability of banks is crucial for national economic security and individual well-being, particularly in emerging markets like Kenya. However, the Kenyan banking sector has faced significant challenges, such as the recent distress and resolution of Spire Bank, highlighting systemic vulnerabilities (Central Bank of Kenya, 2023). Despite substantial foreign direct investment (FDI) inflows, the relationship between FDI and bank stability in Kenya remains ambiguous. While FDI is traditionally viewed as a catalyst for economic development, existing literature shows mixed findings on its impact on financial stability. For instance, some studies suggest that FDI enhances financial resilience (Noy & Vu, 2021), while others argue that it introduces risks such as financial volatility (Adewuyi & Akintande, 2023).

The effect of external debt on bank stability also presents a paradox. External debt is often utilized as a tool for growth, but excessive reliance on it has been associated with economic vulnerability, particularly in developing countries (Muhammad et al., 2021). For Kenya, which heavily relies on external borrowing, the implications for the banking sector's stability remain underexplored (Sporta, 2018).

Similarly, the relationship between merchandise trade and bank stability is not fully understood. While increased trade activities may strengthen bank revenues, they also expose banks to risks such as currency fluctuations and trade shocks (Raifu & Folarin, 2020). Existing studies largely overlook how Kenya's trade dynamics specifically interact with banking stability.

The lack of consensus on these relationships, coupled with insufficient empirical studies in the Kenyan context, creates a critical gap in the literature. This study seeks to address these gaps by examining the distinct and combined effects of FDI, external debt, and merchandise trade on the stability of banks in Kenya, contributing to both theory and policy development.

1.3 Research Objectives

This section is demarcated into two sub-sections. The first addresses the main objective of the study while the second presents the specific objectives of the study.

1.3.1 General Objective

The main objective of the study is to evaluate the effect of foreign direct investment, external debt stock, and merchandise trade on bank stability in Kenya.

1.4.1 Specific research objectives

The specific objectives are as follows:

i. To determine the effect of foreign direct investment on the bank stability in Kenya.
ii. To determine the effect of external debt stock on the bank stability in Kenya.
iii. To determine the effect of merchandise trade on the bank stability of Banks in Kenya.

1.4 Research Questions

The research questions of the study are as below:

i. What is the effect of foreign direct investment on the bank stability of banks in Kenya?
ii. What is the effect of external debt stock on the bank stability of banks in Kenya?
iii. What is the effect of merchandise trade on the bank stability of banks in Kenya?

1.5 Scope of the Study

This section communicates the boundaries of the study in relation to the studies sector, size, geographical reach, concepts, and frames. The study is concerned with macroeconomic indicators presenting from Kenya's economy. The study focuses solely on Kenya with a 17-year period considered (2006 –2022). This translates to a 17 data point per metric with each datapoint indicting the value for the year. A 17-year period encompasses multiple business cycles, allowing researchers to understand the factors that contribute to economic resilience or vulnerability. This duration is crucial for assessing the long-term effects of economic policies, trade dynamics, and technological innovation on growth and development (Acemoglu & Robinson, 2012).

This effort was however hampered by a lack of valid data across the duration with some of the variables having a lower data spread than others. The World Bank Data (2024) was used as the primary source of data for the study. A positivist philosophy is applied to the conducting of quantitative research aimed at understanding the relationships between the variables of interest (Saunders et al, 2003). The study will be completed by May 2024.

1.6 Significance of the Study

The interconnectedness of global economies means that the factors affecting bank stability are increasingly complex and multifaceted. Adewuyi and Akintande (2023) and Agyapong and Bedjabeng (2020) have identified foreign direct investment (FDI) as a dual-edged sword that can both fortify and destabilize banking sectors, making it a crucial area of focus for maintaining financial equilibrium. In the Kenyan context, where the banking sector is an ever-growing recipient of FDI, it is essential to discern the nuanced implications of such investments for bank stability (Musau et al., 2018). Findings from the current study are predominantly of interest to policy makers and academicians.

1.6.1 Policymakers

To policy makers, findings forthcoming from the study will offer context specific information on the interaction between macroeconomic variables. These insights can be used to make policies addressing such issues as the balance of trade between Kenya and her trading partners or similarly, policies dictating the manner through which FDI is sourced for use in the country.

1.6.2 Regulators

Regulatory authorities, and specifically the Central Bank of Kenya, can utilize the study's findings to enhance their regulatory frameworks. By understanding the factors that contribute to banking stability, they can implement more effective supervisory practices and regulatory policies that ensure the resilience and integrity of the banking sector.

1.6.3 Banks and Bank Management

Banks and other financial institutions stand to benefit from a deeper understanding of how international financial and trade factors affect their stability. The study's findings can guide these institutions in making strategic decisions regarding foreign investments, risk management, and operational policies that align with the dynamic economic environment.

1.6.4 Academicians

To academicians, the study addresses the concern of a lack of agreement between theorizations of the nature of economies and the actual manifestation of phenomena in the economies to which theories are deemed applicable. Findings from the study will therefore serve to either support or dispute current conventional understandings about the nature of the Kenyan economy. Findings to the contrary of existing theories would necessitate further efforts in theorizing and conceptualizing of empirical approaches to academic study.

1.7 Chapter Summary

This chapter establishes the foundation for the study by outlining the significance of bank stability within the broader context of economic growth and financial well-being. It delves into the background of the study, highlighting how global events like the 2008 financial crisis and the COVID-19 pandemic have underscored the interconnectedness of global economies and the importance of assessing the resilience of local economies. The problem statement focuses on the variability of Kenya's GDP growth rates and the depreciation of the Kenyan Shilling, emphasizing the need to explore the effect of international financial and trade factors on the stability of Kenyan banks. The research objectives and questions are clearly defined, aiming to assess the effects of foreign direct investment (FDI), external debt, and merchandise trade on the financial stability of banks in Kenya. This chapter sets the stage for a detailed examination of the theoretical and empirical literature on the subject in the subsequent chapter.

CHAPTER TWO
LITERATURE REVIEW

2.1 Introduction

This section presents the theoretical foundations upon which the study is founded, discussions on literature that is of relevance to the study, and the gaps that result from expositions of the same. Also contained in this chapter is the conceptual framework guiding the study.

2.2 Theoretical Foundation of the Study

The purpose of the theoretical foundation of study is to ensure grounding of inferences within the confines of well-established understandings of the interrelationships between the variables under assessment (Saunders et al, 2003). The theory assessed in this section thus serves to provide the overarching basis for the questions pursued through this research.

2.2.1 Neoclassical Economic Theory

The neoclassical theory of economics was put forth by Robert Solow and Trevor Swan in 1956 (Boianovsky, 2018). The theory is premised on the idea that modern economies, and their growth, are dependent on three main factors – labor, capital and technology. Whereas the first two factors are limited within a given economy, the third, technology, is not (Boianovsky, 2018). The theory consequently places the consumer at the heart of the market forces and is responsible for driving supply and demand. The goal of the consumer is to achieve satisfaction through the consumption of goods and services whereas the aim of the supplier is to maximize profits. The idea of consumption as a reaction to need is considered a function of rationality and preferences (Kaufman, 2018). Consumers, acting in the interest of maximizing utility assign value to specific products and services and proceed to secure these to the end of changes in market factors (Kaufman, 2018). These predefined behaviours of consumers and the model of consumption thus allows for a positivist application of techniques to understand the nature of phenomena and make predictions on the state of economies based on a set of conditions and factors (Boianovsky, 2018). The equilibrium in markets is thus achieved through the free hand acting through the

various interest of consumers within the economy; this negates the need for overbearing policy instruments aimed at dictating the directionality of trade within an economy (Solow, 2007).

The neoclassical theory bears dual utility to the current study. Firstly, its appreciation of the positivist understanding of the nature of economies is leveraged, in the current study, in understanding the variables of focus of the objective. These can therefore be used to draw insights on the broader nature of the economy in as far as the advocacy for international orientation goes. The theory is of pertinence to the independent and dependent variable and their ensuing relationship or lack thereof. The second reason for consideration of the theory is its underpinnings. The researcher of the current study seeks to test the rigor of the theory and its applicability in the Kenyan market as it is hypothesized that the lack of consideration of the direct linkage between the market and policy instruments present as hindering to the applicability of the theory. The author the current study argues that the interest of suppliers, are naturally overrepresented in markets, including laissez-faire oriented ones. These interests, when matched with policy instruments, significantly impede the freely achieved equilibria in markets and this results in anomalous relationships in macroeconomic indicators.

A main criticism of the neoclassical theory is its overreliance on mathematical modelling (Passineti, 2000). The main departure of the theory from its predecessor classical theory is its shift from production of goods and services to individual actors in the economy. This shift should therefore likewise seek to capture the shaping factor that defines the individual – one of which is a capacity for unintended and undeciphered irrationality in action. The use of mathematical models presupposed a predictability that is not necessarily reflected in the financial undertakings of the typical player in an economy. The current study addresses this concern by seeking to understand the nature of relationship between the variables under concern and gauging their alignment with the proposed idea of broadened economic markets as an approach to achieving faster economic growth.

2.2.2 Keynesian Economic Theory

Keynesian economics, as articulated by John Maynard Keynes and further explored by economists such as Blinder (2008) and Galí (2018), emphasizes the role of government intervention in managing economic cycles. This theory diverges from the neoclassical emphasis on self-regulating markets, proposing instead that active government policies are necessary to mitigate economic downturns and stabilize markets. Keynesian theory highlights the importance of aggregate demand in driving economic growth and points to fiscal and monetary policies as tools for managing demand (Blinder, 2008; Jahan et al., 2014).

Keynesian economics is particularly relevant to the current study for several reasons. Firstly, it provides a framework for understanding how government policies can influence macroeconomic variables such as FDI, external debt, and trade balances, which are central to this study. This perspective is crucial in examining how Kenyan monetary and fiscal policies affect the stability of banks in the face of international financial and trade factors. Crotty (1980) and Galí (2018) suggest that Keynesian economics is useful in analyzing how policy decisions affect the flow of foreign investments and the ability of banks to manage external shocks.

Secondly, Keynesian theory's focus on government intervention aligns with the study's exploration of regulatory policies and their effectiveness in maintaining bank stability. This theory suggests that rather than relying solely on market forces, deliberate policy measures are needed to ensure financial stability, particularly in volatile international markets (Jahan et al., 2014).

A key criticism of Keynesian economics is its potential to lead to excessive government intervention, which might stifle market efficiency (Galí, 2018). This critique is relevant to the current study, as it seeks to understand the balance between necessary government regulation and market freedom in the context of Kenya's banking sector. The study aims to investigate the extent to which Keynesian-inspired policies contribute to or detract from bank stability in an emerging economy like Kenya, marked by its own unique set of economic and institutional challenges.

In summary, the Keynesian economic theory adds a critical dimension to this study by offering insights into the role of government policies in shaping the stability of banks

in Kenya in the face of international financial and trade dynamics. It therefore supports the independent variables by justifying the need for regulation to affect them to the end of favorable economic standing. It provides a counterbalance to the neoclassical theory, enabling a more comprehensive analysis of the interplay between macroeconomic policies and banking stability.

2.2.3 Institutional Economics Theory

Understanding bank stability in Kenya necessitates considering the institutional landscape. In contrast to traditional economic models, institutional economics, championed by North (2016) and Tamanaha (2015), recognizes how institutions like laws, policies, and social norms shape economic behavior and outcomes. North (2016) argues that institutions define the "rules of the game" in economics, influencing individual and organizational choices, ultimately affecting economic performance. Bush (2019) builds on this concept by exploring how institutions evolve and influence economic change.

This study leverages institutional economics in two key ways. First, it recognizes how Kenya's institutional environment, comprising regulations, governance, and cultural norms, affects bank stability. This framework is crucial for understanding how domestic institutions shape how banks respond to international financial and trade factors. Tamanaha (2015) emphasizes the importance of considering the specific institutional context of developing countries like Kenya, as their unique characteristics can significantly influence economic outcomes.

Second, institutional economics highlights the importance of legal and regulatory frameworks in the banking sector. It posits that bank stability is not solely determined by economic variables, but also by the effectiveness of institutional function and rule enforcement. This aligns with the study's objective of examining the effect of international financial flows on banking stability, considering the role of regulatory bodies like the Central Bank of Kenya.

While Tamanaha (2015) critiques the theory's potentially broad definition of institutions, leading to vague explanations of economic phenomena, this study

mitigates this by focusing on specific institutional factors relevant to bank stability in Kenya, such as banking regulations and economic policies.

By incorporating the institutional economics perspective, this study gains a vital dimension, recognizing the significant role of institutional structures and their evolution in influencing bank stability in Kenya. This framework complements neoclassical and Keynesian perspectives, offering a more holistic understanding of the factors affecting bank stability within the context of international economic dynamics.

2.3 Empirical Review

The empirical review of literature features an exposition of empirical findings with the aim of ensuring that the wheel is not reinvented (Kothari, 2004). Essentially, through an empirical review, a researcher gains an understanding of the lay of the land with respect to publications that are of relevance to the investigative direction taken in addressing research objectives. The current section therefore explores the relationships posited by the three objectives of the study with an aim of finding gaps that can be used to advance knowledge in the field in light of the theory put forth in the foregoing section. The section is thus aligned with the objectives of the study and demarcated as such.

2.3.1 Effect of FDI on Bank Stability

A study by Lee and Hsieh (2014) examines the relationship between bank reforms, foreign ownership, and financial stability in the banking sector. Lee and Hsieh (2014) use a sample of 41 countries from 1995-2010 to test their hypothesis that bank reforms that increase foreign ownership in the banking sector can improve financial stability.

Lee and Hsieh (2014) use a composite index that incorporates various indicators such as non-performing loans, capital adequacy, and deposit insurance coverage to measure financial stability. To measure bank reforms, they use data from the World Bank's "Doing Business" report, which assesses the ease of doing business in a country based on various regulatory indicators. To measure foreign ownership, they use data on the share of foreign banks in a country's banking sector.

Research suggests a positive correlation between bank reforms that increase foreign ownership and a nation's financial stability (Lee & Hsieh, 2014). This link appears to be stronger in countries with more advanced economies and well-established legal systems. This study expands on existing knowledge in this area by employing a larger sample of countries and a comprehensive measure of financial stability. It further contributes to the discussion on foreign ownership's role in banking by suggesting that policies promoting it might enhance financial stability. However, limitations exist, such as the use of cross-country data, which may not fully capture the nuances of the relationship between bank reforms and financial stability.

Global Financial Integrity (GFI), in the Integrity (2019) report, analyzes Illicit Financial Flows (IFFs) to and from 148 poor nations during a ten-year period (2006-2015). Defining IFFs as cross-border transfers of funds obtained, moved, or used unlawfully can involve practices including tax evasion, corruption, money laundering, and trade misinvoicing. The sources, destinations, and research analyze the economical and societal implications of IFFs on emerging countries. One of the report's main conclusions is that IFFs can drain resources and impede economic development, which has a considerable detrimental effect on emerging nations' economies. IFFs from developing countries surged by 101% between 2006 and 2015, from $541.9 billion to $1.1 trillion. China, Mexico, Malaysia, India, the Philippines, Saudi Arabia, Russia, the United Arab Emirates, Indonesia, and Thailand were the top 10 nations with the greatest IFFs as a proportion of GDP (Integrity, 2019).

Kellard et al. (2020) explore the relationship between risk, financial stability, and foreign direct investment (FDI). The authors use panel data from a sample of developed and emerging economies to investigate the effect of risk on FDI and the role of financial stability in mediating this relationship. Kellard et al. (2020) find that higher levels of risk, as measured by country-level risk indices, are associated with lower levels of FDI. However, they also find that financial stability acts as a buffer, reducing the negative effect of risk on FDI, suggesting that countries with more robust economic systems may be more attractive to foreign investors, even with higher levels of risk.

Kellard et al. (2020) also investigate the effect of different types of risk, on FDI and find that political risk has the most substantial negative effect on FDI. Economic risk

and financial risk suggest that investors are particularly sensitive to risks related to political instability and economic conditions when making investment decisions. Findings reveal notable insights into the complex relationship between risk, financial stability, and FDI. It highlights the importance of economic stability in attracting foreign investment and suggests that policy measures to improve financial stability may effectively promote FDI. The findings have implications for policymakers in both developed and emerging economies, as they indicate that efforts to strengthen financial stability may be essential in attracting foreign investment.

Noy and Vu (2021) present a comprehensive analysis of the impact that FDI has on financial stability in emerging markets, with a specific focus on African banking sectors. They found that FDI plays a crucial role in enhancing the stability of these banks, mainly by improving capital adequacy and reducing non-performing loans. This finding is significant as it reveals the multifaceted benefits of FDI beyond just capital infusion. Concentrating on emerging markets, the study provides valuable insights into African countries, utilizing data from 2000 to 2018 and employing quantitative analytical techniques. This research is particularly relevant to countries like Kenya, suggesting that FDI's benefits extend to improvements in operational standards and the overall financial health of the banking sector.

The research by Mutinda and Ojera (2022) delved into the dynamics between FDI, the regulatory environment, and the performance of banks in Kenya. They concluded that strong regulations significantly enhance the positive effect of FDI on bank performance. Their study, focused exclusively on Kenya, employed a combination of qualitative and quantitative research methods to analyze data from Kenyan banks. This study is crucial as it underscores the importance of a robust regulatory framework in Kenya for maximizing the benefits of FDI in the banking sector, pivotal for policy development and economic growth.

Mwangi et al.'s (2022) research focused on the role of FDI in fostering digital transformation within the banking sector. They concluded that FDI significantly contributes to digital advancements, leading to increased efficiency and stability in banks. The study, which looked at developing countries including Kenya, utilized a mixed-methods approach, combining qualitative and quantitative data. This research

is particularly relevant for emerging economies like Kenya, highlighting how FDI can be a catalyst for technological advancement in the banking sector, leading to enhanced operational efficiency and stability.

Trade mis-invoicing, corruption and criminal activity were the main causes of IFFs from developing nations. Over the ten years, developing nations lost an average of 8.4% of their GDP to IFFs, with Sub-Saharan Africa suffering the greatest losses (11.2% of GDP) and the Middle East and North Africa (9.8% of GDP). The analysis also reveals that advanced economies, which act as a hub for the transmission of illegal funds, frequently support IFFs. The research also emphasizes how these flows are made possible through trade mis-invoicing, which makes up the majority of IFFs.

Adewuyi and Akintande's (2023) study highlights how increased FDI correlates with enhanced risk management practices in African banks, particularly in politically stable countries. Their research, covering various African countries, utilized panel data analysis to examine the relationship between FDI and risk management in banks. This study is vital for understanding the role of foreign investment in improving risk assessment and management in the banking sector, a key factor for financial stability, especially relevant to countries like Kenya. The current study seeks to quantify the effect of this factor alongside other international and trade variables deemed effectful in the context of Kenya’s economy.

2.3.2 Effect of External Debt Stock on Bank Stability

Heremans (2007) paper is a comprehensive analysis of corporate governance issues in the banking sector, with a specific focus on its implications for financial stability. The study is situated in the broader context of the banking industry's role in economic systems and the potential risks banks pose to financial stability.

The paper commences with an overview of the corporate governance challenges specific to banks. It discusses how the unique nature of banking, characterized by high leverage, regulatory environments, and systemic importance, necessitates distinct governance mechanisms. The study delves into the theoretical underpinnings of corporate governance in banks, examining concepts like agency theory, risk management, and the role of regulatory oversight.

Heremans (2007) uses a combination of qualitative analysis and case studies to explore these issues. He examines different governance structures in banks across various countries, analyzing how these structures affect financial stability. Particular attention is given to the role of boards, management practices, and regulatory frameworks in shaping governance outcomes. The study also evaluates the effect of corporate governance on the behavior of banks during financial crises. It discusses how governance failures can exacerbate financial instability and how effective governance can mitigate these risks. The author proposes several policy recommendations aimed at strengthening the corporate governance of banks. These include enhancing transparency, improving risk management practices, and reinforcing regulatory standards.

The paper provides a crucial insight into the intersection of corporate governance and financial stability in the banking sector. It emphasizes the need for tailored governance frameworks to address the unique risks and challenges banks face, contributing significantly to the ongoing discourse on banking regulation and financial stability. In light of the current study, the insights presented by Heremans (2007) serve to indicate the need for articulation of relative effect of international and trade factors on bank stability in order to inform policy.

Obstfeld et al's (2010) study examines the relationship between financial stability, the trilemma in international finance, and international reserves. The trilemma, a core concept in international economics, refers to the challenge countries face in simultaneously maintaining exchange rate stability, free capital movement, and an independent monetary policy. The authors provide a nuanced exploration of how these three aspects interact and influence a country's financial stability.

The study begins by contextualizing the trilemma within the broader framework of global financial markets. The authors use a mix of historical data and contemporary case studies to illustrate how different countries have navigated the trilemma. They pay special attention to the role of international reserves - assets held by central banks to cushion against financial shocks - in maintaining financial stability.

The paper employs a robust methodological approach, utilizing econometric models to analyze the relationship between international reserves and financial stability. Findings from the study indicate that countries with substantial international reserves are better equipped to manage the trilemma and maintain financial stability. This is particularly evident in the context of emerging economies, which often face greater volatility in capital flows and exchange rates.

Furthermore, the study discusses policy implications, emphasizing the need for prudent reserve management and the development of strategies to mitigate the adverse effects of the trilemma. The authors argue for a balanced approach, where countries actively manage their reserve levels while also implementing sound monetary and fiscal policies. This research adds a significant layer to our understanding of financial stability in a globalized world. It highlights the complex interplay between international finance and domestic economic policies, offering valuable insights for policymakers and financial analysts.

This research is significant since it investigates the effects of various factors, including external debt stock, on the underlying financial strength of Kenyan banks. It further highlights the importance of banking regulation and supervision to maintain commercial banks' financial stability. The study's scope was confined to commercial banking institutions in Kenya, and the period of analysis was limited to between 2013 and 2016. The researchers found that national banks in Kenya draw some substantial negative correlation between external debt stock and their fundamental economic health. Sporta (2018) also suggested that Kenya's central bank keep an eye on commercial banks' debt levels to ensure they are healthy. This study sheds light on the issue investigated by dissecting the effect of external debt stock mainly on the fundamental financial health of Kenya's banks.

This study examines how international financial shocks impact bank stability in the Middle East and North Africa (MENA) region. Researchers analyze data from various MENA banks, focusing on metrics like capital adequacy, asset quality, and profitability. Their findings reveal that MENA banks, despite being affected by global crises like the 2008 financial crisis and the European debt crisis, demonstrated surprising resilience. This resilience is attributed to a combination of factors, including

regulatory frameworks, the unique composition of banking assets in the region, and the MENA banking system's weaker integration with the global financial system.

Furthermore, the study discusses policy implications, suggesting ways to enhance the resilience of banks in the MENA region. It advocates for stronger regulatory measures, improved risk management practices, and a more cautious approach towards international financial integration. The paper contributes to the broader discourse on banking stability in emerging economies, offering insights into how these regions can navigate global financial challenges. The current study, borrowing from this approach seeks to understand the contribution of external debt stock to the preserved financial stability of banks in the Kenyan context.

A study by Trad et al. (2017) explores bank stability in the Middle East and North Africa (MENA) region during two major crises: the global financial crisis and the European sovereign debt crisis. The researchers use various quantitative techniques, like econometric models, to analyze how MENA banks fared in this geopolitical context. They highlight the importance of bank stability during global financial turmoil and explore the unique vulnerabilities and strengths of the MENA banking sector in this regard.

Sporta (2018) looked into the causes of financial hardship and how it affected the performance of Kenyan corporate banks. This study used a descriptive survey methodology to assemble information from the annual reports of 40 banks in Kenya. The study's principal objective was to ascertain the degree to which the current financial crisis is affecting future projections and to what extent certain financial distress factors are affecting the efficiency of banks in the country. All of the information for this study came from publicly available sources, such as annual reports and bank income statements, as well as the Central Bank of Kenya (2016). Inferential and descriptive statistics were used to examine the information gathered between 2013 and 2016. This research showed that external debt stock, financial leverage, liquidity, and asset quality are the significant financial distress factors affecting commercial banks' performance.

Bratis et al (2020) delve into the dynamics of systemic risk and financial stability during the Eurozone debt crisis. The authors provide a detailed analysis of how the crisis affected the financial stability of banks and financial institutions within the Eurozone. They start with a thorough overview of the Eurozone crisis, detailing its origins, evolution, and effect on the European banking sector.

Utilizing advanced econometric models, the study assesses the degree of systemic risk present in the Eurozone during the crisis period. The authors analyze a wide array of data from different Eurozone countries, focusing on indicators such as bank capitalization, liquidity ratios, and cross-border lending activities. Their findings highlight the significant increase in systemic risk during the crisis, driven by factors like government debt levels, banking sector vulnerabilities, and the interconnectivity of European financial institutions.

The paper also explores the policy responses to the crisis, evaluating their effectiveness in mitigating systemic risk and restoring financial stability. The authors discuss the role of the European Central Bank and other supranational institutions in stabilizing the banking system, highlighting the challenges and successes of these interventions. By providing a comprehensive analysis of the Eurozone debt crisis from a financial stability perspective, this study contributes valuable insights into the management of systemic risk in a highly integrated financial environment. It underscores the importance of coordinated policy responses and robust regulatory frameworks in maintaining the stability of the banking sector during times of crisis.

Muhammad et al. (2021) examined the relationship between external debt and economic growth across various South Asian nations, including Afghanistan, Bangladesh, Bhutan, India, Pakistan, Sri Lanka, Maldives, and Nepal. They analyze how external debt impacts economic growth in the region, considering both the debt itself and other external factors. The study uses World Bank data from 2000 to 2018 to examine this relationship. Muhammad et al. start by exploring how public debt, debt levels relative to GDP (debt ratio), and overall economic output (GDP) affect growth in South Asia. Their quantitative analysis reveals that external debt and current account deficits (the difference between a country's imports and exports) influence economic growth. The study argues that higher external debt is associated with slower economic

growth. The strong correlation between debt and current account deficits is also highlighted. Finally, the researchers suggest that stricter financial regulations limiting foreign borrowing could be one way to manage the impact of debt on economic growth.

2.3.3 Effect of Merchandise Trade on Bank Stability

Čihák and Hesse (2010), in a study involving 19 different financial systems and employing a Z-score for bank stability, sought to compare the financial health of Islamic banks to traditional commercial banks. The study revealed that small Islamic banks in comparison small commercial banks and larger Islamic banks, showed better performance. It was further noteworthy, from the findings, that large commercial banks showed higher financial stability than their Islamic counterparts. This difference might be due to the challenges of managing credit risk in larger Islamic banks. This research is relevant because it sheds light on the stability of Islamic banks, which could be impacted by trade in goods, particularly in regions with a strong Islamic banking presence.

Musau et al (2018) investigated the link between financial institutions', credit risk, Kenya's GDP, and the extent to which the country's population enjoys access to monetary services. The research begins by providing background information on financial inclusion in Kenya, which has been a priority for the government and policymakers in recent years. Musau et al. (2018) explain that the study aims to examine credit risk at commercial banks and how they relate to gross domestic product. Data from the study was sourced from the Central Bank of Kenya and the World Bank's Financial Inclusion Index. Musau et al. (2018) used multiple regression analysis to test their hypotheses and control for other factors that could influence the relationship between economic participation and other factors. Findings show a favourable correlation between financial intermediation and GDP and a negative correlation between financial incorporation and the credit risk. This suggests that a push to expand the accessibility of financial services in the country may boost the economy and serve to stabilize the financial system. Musau et al. (2018) reflect on what their research means for legislators and research scholars and suggest that policymakers focus on increasing financial inclusion in Kenya, as it could positively

affect the economy and financial stability. Musau et al. (2018) also call for further research on the topic to explore the mechanisms behind the observed relationships and to study the effects of financial inclusion in other countries.

Samitas et al. (2018) use an agent-based simulation model to examine the aftermath of Brexit on financial stability in the UK. The authors find that a "hard" Brexit scenario, in which the UK leaves the European Union without a trade agreement, would negatively affect financial stability, particularly in the banking and insurance sectors. On the other hand, a "soft" Brexit scenario, in which the UK maintains close economic ties with the EU, would have a more muted effect on financial stability.

Samitas et al. (2018) begin by providing background on the Brexit process and its potential implications for the UK economy, then describe the agent-based simulation model developed to study the effects of Brexit on financial stability. The model includes agents representing banks, insurance companies, and other financial institutions, as well as agents representing households and firms. Samitas et al. (2018) use the model to simulate the effects of different Brexit scenarios on these agents and the overall financial system.

The financial sustainability, especially in the lending and insurers sectors, is significantly affected under a harsh Brexit situation, as found by Samitas et al. (2018). They attribute these negative effects to the increased uncertainty and reduced trade flows resulting from a hard Brexit. In contrast, a soft Brexit scenario would have a more muted effect on financial stability, as the UK would retain close economic ties with the EU and the resulting uncertainty and trade disruptions would be less severe. Samitas et al. (2018) argue that policymakers should consider the potential effects of Brexit on financial stability when making decisions about the UK's future relationship with the EU. This article thus contributes to the growing body of knowledge on the economic consequences of Brexit.

A study by Raifu and Folarin (2020) delves into the connection between a country's financial system and its trade in goods, focusing on Nigeria. This research is important because it explores how financial development impacts both a nation's exports and imports, an under-researched area. The study highlights a key theme: how improved

access to financing empowers small and medium-sized businesses (SMEs) to participate more actively in trade. In other words, a well-developed financial system provides these businesses with the credit and trade financing options they need to compete in international markets.

Furthermore, the paper delves into the effect of financial development on risk management and liquidity. An evolved financial system equips businesses with sophisticated tools to mitigate risks associated with international trade, such as currency and credit risks. This aspect is crucial in maintaining liquidity and ensuring the smooth functioning of import-export operations. Additionally, Raifu and Folarin's (2020) research offers a detailed analysis of the differential effects of financial development on exports and imports. This distinction is vital in understanding the nuanced ways in which financial infrastructure influences different components of merchandise trade.

Lastly, the study's disaggregated approach implies a sector-specific analysis, shedding light on how various sectors engaged in trade are affected by financial advancements. This aspect is crucial for policymakers and stakeholders in crafting targeted strategies for economic development. Overall, Raifu and Folarin's (2020) study is a valuable contribution to the literature, providing insights into how financial systems in emerging economies like Nigeria can be leveraged to enhance trade patterns and foster economic growth.

A recent study by Kyei et al. (2023) examines how changes in commodity prices impact the health of banks in Ghana, a country heavily reliant on commodity exports. This research is especially important for developing economies, where fluctuations in commodity prices can significantly affect the financial sector. The study explores how this volatility influences factors like a bank's capital reserves (capital adequacy) and the number of unpaid loans (non-performing loans). By analyzing these aspects, the researchers shed light on how ups and downs in the prices of key commodities, such as cocoa, gold, and oil, influence the financial stability of banks in Ghana.

An integral part of their analysis involves applying the adaptive market hypothesis. This perspective allows for a dynamic understanding of how markets and financial

institutions adjust and evolve in response to changing conditions in commodity markets. Such an analysis is crucial in emerging markets where economic conditions are rapidly evolving (Kyei et al., 2023). Furthermore, the study provides a sector-specific analysis, detailing how different commodities affect the financial stability of banks. This disaggregated approach is essential for understanding the diverse effects of various sectors (e.g., agriculture, mining) on the banking sector's robustness.

Additionally, the research by Kyei et al. (2023) holds significant implications for policymakers. The insights derived from the study could inform strategies to manage risks associated with commodity price fluctuations and enhance the resilience of the financial sector against such volatilities. In summary, the study by Kyei et al. (2023) offers a comprehensive view of the complex relationship between commodity prices and financial stability in the context of an emerging economy like Ghana, providing valuable insights for economic policy and financial risk management.

2.4 Summary of Research Gaps

Muhammad et al., (2021) offer recommendations for the development of a policy framework to promote economic growth. Findings indicate that economic growth is inversely proportional to external debt. The finding necessitates additional study of the relationship between debt and stability of financial institution – a gap addressed through the current study. Sporta (2018) shows that external debt stock, financial leverage, liquidity, and asset quality are the significant financial distress factors affecting commercial banks' performance. The study further highlights the importance of banking regulation and supervision to maintain commercial banks' financial stability. This observation goes contrary to the presupposition of the neoclassical theory which advocates for minimalistic regulation to achieve expedited growth of economies. This contradiction between empirical finding and theoretical expectation warrants additional empirical research. The current study addresses this need.

Findings from a study by Musau et al (2018) show a positive correlation between financial intermediation and GDP and a negative correlation between financial incorporation and the credit risk of commercial banks in Kenya. Musau et al. (2018) also call for further research on the topic to explore the mechanisms behind the

observed relationships and to study the effects of financial inclusion in other countries. The current study thus answers this call for empirical research by addressing the link between the three metrics of the independent variable and the financial stability of banking institutions. Table 2.1 Provides a tabulated summary of the research gaps.

Table 2.1 Summary of research gaps

Variable	Existing Knowledge	Research Gaps	Sources
Foreign Direct Investment (FDI)	FDI is traditionally viewed as a driver of economic development and financial stability. Mixed evidence on its impact on bank stability: Some studies indicate positive effects like improved risk management, while others highlight risks like financial volatility.	Limited contextual evidence on the specific effects of FDI on bank stability in Kenya. Insufficient exploration of moderating factors such as regulatory frameworks and digital transformation.	Noy & Vu (2021); Adewuyi & Akintande (2023); Mutinda & Ojera (2022).
External Debt	External debt has been linked to both economic growth and vulnerability. Excessive debt is associated with financial instability in developing countries.	Sparse research on how Kenya's reliance on external debt influences banking stability. Limited understanding of the interplay between external debt and economic indicators like the exchange rate and inflation.	Muhammad et al. (2021); Sporta (2018).
Merchandise Trade	Merchandise trade is generally associated with economic expansion and diversification of bank	Lack of detailed analysis of how Kenya's trade dynamics affect bank stability. Absence of	Raifu & Folarin (2020); Kyei et al. (2023).

	revenues. Trade-related risks, such as currency and trade shocks, are underexplored.	sector-specific insights on the contribution of exports and imports to bank resilience.	
Bank Stability	Bank stability is measured through indicators like capital adequacy and liquidity. Its relationships with macroeconomic factors vary across contexts.	Limited Kenyan-specific studies linking bank stability to macroeconomic indicators like FDI, external debt, and trade. Limited application of advanced methodologies like time-series analysis and co-integration testing.	Musau et al. (2018); CBK (2022).
Theoretical Frameworks	Theories like Neoclassical, Keynesian, and Institutional Economics offer broad explanations for economic phenomena.	Insufficient integration of these theories to explain the interrelationships between FDI, external debt, trade, and bank stability in Kenya's unique economic context.	Boianovsky (2018); Galí (2018); North (2016).

2.5 Conceptual Framework

The conceptual framework details the relationship between the constructs under study. It is evident, from the foregoing review, that extant literature posits relationships between the constructs under study. These independent variables are thus hypothesized to bear similar orientation to those proposed in literature and these orientations are captured in the graphic depiction of figure 2.1 below.

Independent variables (International Financial and Trade Factors)

Dependent Variable (Bank Stability in Kenya)

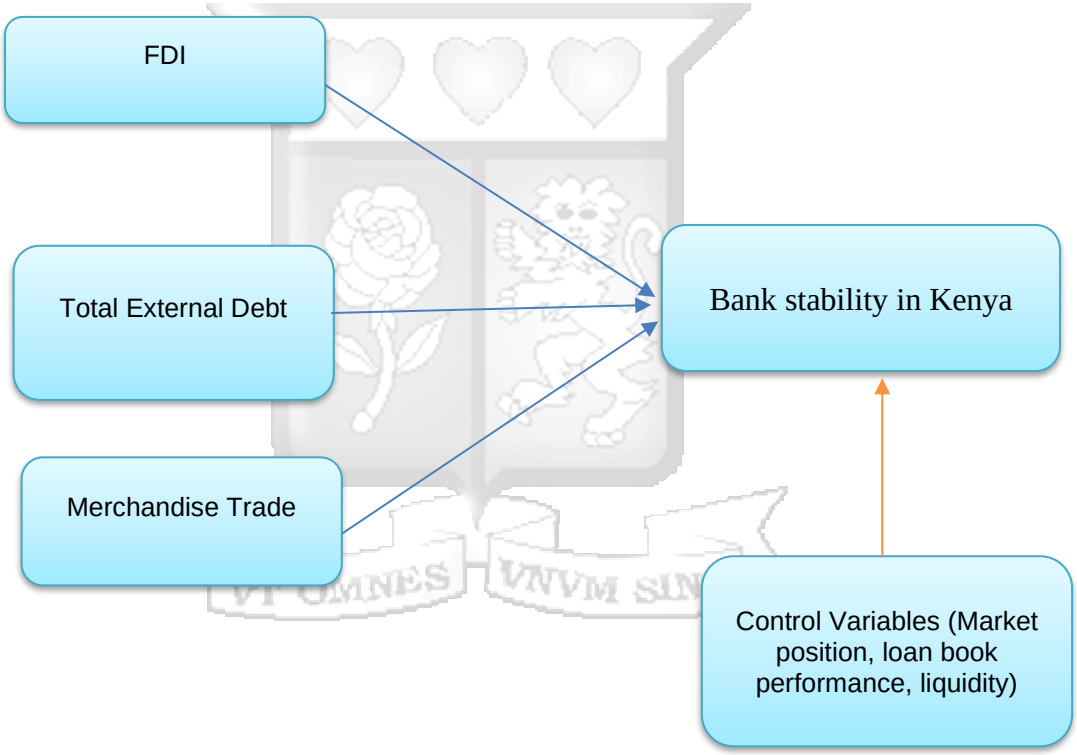

Figure 2.1 Conceptual Framework

Source: Researcher (2024)

2.6 Operationalization of Variables

This section details the study variables, their constitution, measurement, and sourcing with the aim of indicating how they will be used, in keeping with the objectives and the conceptual framework, to address the research questions through collection of pertinent data. Table 2.1 Provides a summary of the operationalization of variables.

Table 2.2 Operationalization of variables
Source: Researcher (2024)

Variable Type	Variable	Sub-Variables	Measurement	Source
Independent Variables	Foreign Direct Investment (FDI)	- Equity capital Reinvestment of earnings, other capital	FDI	World Bank Data repository
Independent Variables	Total External Debt	- Public and publicly guaranteed long-term debt, Private non-guaranteed long-term debt, Use of IMF credit Short-term debt	EDS	World Bank Data repository
Independent Variables	Merchandise Trade	- Merchandise exports, Merchandise imports	MT	World Bank Data repository
Control Variables	Market reach	N/A	CBB	World Bank Data repository
	Loan book performance	N/A	BNL:TGL	World Bank Data repository
	Liquidity	N/A	BLR:BAR(%)	World Bank Data repository
Dependent Variable	Bank stability in Kenya	- Capital adequacy, Asset quality	BCAR	Central Bank of Kenya

To ensure clarity and consistency in the measurement of the study variables, bank stability was operationalized using the capital adequacy ratio, calculated as the ratio of a bank's capital to its risk-weighted assets, reflecting the regulatory measure

commonly applied to assess the financial health of banks. For merchandise trade, the study measured it as the sum of exports and imports as a percentage of GDP, which aligns with global practices for evaluating trade openness and integration into the global economy. This approach avoids potential distortions that might arise from focusing solely on net exports, which exclude the scale of total trade activities. Regarding the distinction between external debt and foreign direct investment (FDI), external debt was treated as a stock variable, representing the cumulative liabilities owed by the country, while FDI was measured as a flow variable, capturing the net inflows of investments during a specific period. This differentiation reflects their intrinsic economic roles: external debt represents an ongoing financial obligation, while FDI reflects dynamic capital movement into the economy, influencing growth and development in real-time. These measurement approaches were adopted to ensure alignment with international standards and the study's objectives of exploring the interplay between these macroeconomic variables and bank stability.

2.6 Chapter Summary

This chapter lays out the theoretical underpinnings and conducts a literature review relevant to understanding the effect of international financial and trade factors on the stability of banks in Kenya. The chapter begins by establishing the theoretical foundation, aiming to ground the study's inferences within the confines of established theories and understandings of the interrelationships between various economic variables (Saunders et al, 2003). This foundation provides the basis for exploring the study's research questions.

The literature review section delves into existing research, focusing on how foreign direct investment (FDI), external debt, and merchandise trade influence the stability of banks. This review helps in identifying research gaps and situates the study within the current body of knowledge. The chapter also discusses the conceptual framework guiding the study, linking the theoretical underpinnings to the empirical investigation. This approach ensures a robust and well-grounded analysis of the effect of these macroeconomic variables on the banking sector's stability in Kenya.

CHAPTER THREE
RESEARCH METHODOLOGY

3.1 Introduction

The purpose of the research methodology was to explain the reasoning supporting the chosen approach for a study (Kothari, 2004). Captured in this section are ideas pertaining to the research philosophy, research design, population and sampling, data collection methods, data analysis, research quality, and ethical considerations.

3.2 Research Philosophy

The purpose of the research philosophy was to articulate the approach taken to allow researchers to generate ideas into knowledge within the context of research (Gupta, 2022). Ugwu et al (2021) posit that there are four main types of research philosophy – pragmatism, positivism, realism and interpretivism. The essence of pragmatism is that the acceptance of concepts is contingent on their support of action (Ugwu et al, 2021). The researcher, faced with multiple ways of viewing the world, must select the most expedient in light of their need and action the same (Ugwu et al, 2021).

Positivism involves the pursuit of factual knowledge through observation (Ugwu, et al, 2021). The underlying assumption in this philosophy is that the world can be understood objectively, and the researcher's role is therefore to arrive at these objective insights on the nature of phenomena. This approach contrasts, most starkly, with the interpretivist paradigm which holds that social constructs define the quest to acquire knowledge, and that knowledge is socially constructed (Ugwu et al, 2021).

Finally, realism is centred on the idea that the human mind is removed from reality hence only scientific tools can be used to arrive at objective truths (Ugwu et al, 2021). This idea is therefore closely related to positivism in that the world is considered to bear in it an objectivity that the researcher doesn't shape through research.

The current study assumed a positivist philosophy and therefore assumed that the constructs under study can be understood objectively. This objectivity is leveraged unto the end of understanding interconnects of variables. The gathered information on

the nature of the variables and their co-association is used to answer the research questions.

3.3 Research Design

Descriptive research design, the most generalized type of design, involves the explanation of phenomena, in depth, using data presented in a summarized manner (Bloomfield & Fisher, 2019). Correlational design involves the assessment of interrelation between variables without manipulation of the constructs under assessment (Bloomfield & Fisher, 2019). The current study employed the two research designs thus yielding a descriptive-correlations design to the study. This approach was chosen as the researcher, through the computation of such representative data as averages, sought to shed light on trends of the data. Additionally, in keeping with the dictates of the research objectives, the researcher aimed to infer the interrelationships between the variables under assessment.

3.4 Population and Sampling

Population refers to the total set of entities to which research findings are intended to be generalized (Kothari, 2004). This study focused on national-level aggregated data specific to Kenya's economy, making the findings applicable exclusively to the Kenyan context. The data used for the study does not encompass all recorded observations but instead reflects a predefined study period. The period under consideration spans 17 years (2006–2022), selected due to data availability and reliability constraints.

While shorter than the initially intended 25 years, this timeframe remains valuable for capturing critical macroeconomic trends, as it covers multiple business cycles and key economic transitions in Kenya. These cycles are essential for understanding how external factors, such as foreign direct investment (FDI), external debt, and merchandise trade, influence the resilience and stability of the Kenyan banking sector. A long-term perspective, even with 17 years of data, facilitates the assessment of cumulative effects of policies, trade patterns, and external shocks on economic and financial systems, aligning with the recommendations of Acemoglu and Robinson (2012).

This duration was also chosen to maximize the validity of findings despite limitations in data accessibility, enabling a meaningful exploration of the dynamics affecting bank stability in Kenya. The restricted scope highlights the challenges in data collection while underscoring the importance of leveraging high-quality secondary data from reputable sources such as the Central Bank of Kenya and the World Bank to maintain the reliability and accuracy of the study's outcomes.

3.5 Data Collection Methods

Data for this study was primarily sourced from the World Bank Data Repository (World Bank, 2022) and supplemented by exploratory reviews of other reputable sources, such as reports from the Central Bank of Kenya (CBK) and the Kenya National Bureau of Statistics (KNBS). The selection of data from these sources was driven by the need for accurate, consistent, and longitudinal information that aligns with the study's objectives. While the inclusion of data from multiple repositories was initially considered to enrich the dataset, significant challenges, such as inconsistent reporting standards, data incompleteness, and definitional discrepancies across sources, influenced the decision to rely primarily on World Bank data.

The World Bank Data Repository was chosen for its global reputation for high-quality, standardized data and its comprehensive coverage of macroeconomic indicators over extended periods. The repository's adherence to international data reporting frameworks ensures the comparability and reliability of data across countries and timeframes. Furthermore, data from the World Bank is available in easily accessible and downloadable formats, enabling efficient preparation for analysis.

Explorations of CBK and KNBS reports were constrained by issues such as fragmented datasets, limited temporal coverage, and lack of uniform definitions for key variables, such as foreign direct investment (FDI) and merchandise trade. This inconsistency would have complicated the analysis and potentially introduced bias. Despite these challenges, insights from these sources were used to validate and cross-check trends in the World Bank dataset, ensuring alignment with Kenya's economic context.

The reliance on secondary data from the World Bank thus represents the best balance between accuracy, reliability, and usability. This approach aligns with academic recommendations that emphasize the use of internationally recognized data repositories for research requiring cross-temporal consistency (Kothari, 2004). By leveraging such data, the study ensures that its findings are grounded in robust and credible evidence, minimizing the risks of bias or misrepresentation while optimizing resource efficiency.

3.6 Data Analysis

The objectives of the current study necessitated estimation of relationship between constructs. The current study was therefore structured to address this need. An ordinary least squares approach was the main analysis tool. The approach was chosen on account of its utility in inferring interrelationship between variables captured in the ratio/continuous scale (Mahsin, 2022). Descriptive statistics presented in way of summaries and graphs were further used to augment the discussion on the nature of the data and trends that present from the same. In addition to examining the primary factors of FDI, external debt, and merchandise trade, the study also considered certain control variables that significantly influence the financial stability of banks. Muhammad et al. (2021) recommend investigating the inverse relationship between economic growth and external debt, which may affect the stability of financial institutions. This suggests the need to examine how the level of external debt could potentially counteract the benefits of FDI in promoting economic growth. Furthermore, Sporta (2018) identifies external debt stock, financial leverage, liquidity, and asset quality as significant factors affecting the performance of commercial banks. These elements are crucial in understanding the financial health of banks and should be included as control variables in the analysis. Additionally, findings from Musau et al. (2018) reveal a positive correlation between financial intermediation and GDP and a negative correlation between financial inclusion and credit risk in Kenyan banks. These relationships highlight the importance of financial intermediation and inclusion as potential control variables in assessing bank stability. Four pre-tests were conducted prior to running of the regression model – test of normality, test of multicollinearity, and assessment of the linear relationship between variables, and a test of homoscedasticity (Kothari, 2004). Specifically, for the current study, market reach,

loan book performance, and liquidity were included as control variables in keeping with observations by Musau et al. (2018). The regression equation used, or the model is presented below:

$$Y = \beta 0 + \beta 1x1 + \beta 2x2 + \beta 3x3 + \beta 4x4 + \beta 5x5 + \beta 6x6 + \beta 7x7 + \varepsilon$$

Where:

Y is the dependent variable – Bank Stability in Kenya

β_1, β_2, β_3, β_4, β_5, β_6 and, β_7 are the regression coefficients for the variables FDI, external debt stock, merchandise trade, market reach, loan book performance, liquidity.

x_1, x_2, x_3, x_4, x_5, x_6, and x_7 are the aforementioned independent variables and control variables.

ε is the error term.

The study utilized the Ordinary Least Squares (OLS) regression model, recognized for its effectiveness in analyzing relationships between variables measured on a continuous or ratio scale (Mahsin, 2022). This approach was integral to examining the connections between foreign direct investment (FDI), external debt, merchandise trade, and bank stability in Kenya. To strengthen the analysis and ensure internal validity, control variables that could impact bank stability, such as economic growth, were incorporated, aligning with Muhammad et al.'s (2021) recommendation to investigate the inverse relationship between economic growth and external debt. Additionally, Sporta (2018) highlights external debt stock, financial leverage, liquidity, and asset quality as key factors in commercial bank performance. Musau et al. (2018) also underscore the relevance of financial intermediation and inclusion as influential factors, further supporting their inclusion as control variables within the regression analysis. The OLS diagnostic tests scrutinized the regression model for any violations of OLS assumptions, such as non-linearity, heteroscedasticity, multicollinearity, and autocorrelation, to ensure accurate and reliable results that can inform policy and academic discourse (Kothari, 2004).

To ensure consistency and comparability in interpreting the relationships among the variables, the study relied on standardized coefficients in the regression analysis. This decision was informed by the significant spread in the measurement scales of the variables under investigation. For instance, foreign direct investment (FDI) is

measured in billions of United States Dollars, while merchandise trade is expressed as a percentage of GDP, and bank stability is assessed through the capital adequacy ratio. Such differences in scales could introduce distortions in the analysis if unstandardized coefficients were used, leading to challenges in understanding the relative contribution of each variable to the dependent variable. By standardizing the coefficients, the study ensured that all variables were interpreted in terms of their standard deviations, allowing for meaningful comparisons of their effects on bank stability. This approach is supported by academic literature, which recommends the use of standardized coefficients in cases where variables are measured on different scales to mitigate the risk of measurement error and enhance interpretive clarity (Wooldridge, 2015).

Justification for Omitting Certain Statistical Tests

The omission of specific diagnostic tests, including multicollinearity testing with Variance Inflation Factor (VIF), heteroscedasticity testing with best-fit lines, stationarity testing, and co-integration testing, was primarily due to the small sample size of available data. While the study aimed to apply robust econometric techniques, the limited observations constrained the ability to conduct these tests effectively and reliably. Below, the reasoning for the exclusion of these tests is outlined, supported by academic literature.

The time index was not included in the regression model due to the limited number of observations (17 years), which constrained the feasibility of incorporating a time-specific variable without overfitting the model or reducing its explanatory power. Adding a time index in a small dataset could lead to multicollinearity or introduce noise, diluting the significance of the primary variables of interest (Gujarati & Porter, 2009). Furthermore, the study's primary objective was to examine the relationships between external debt, FDI, merchandise trade, and bank stability, rather than capturing time-dependent trends or dynamics. While time series techniques such as differencing or including a time index can account for temporal effects, these approaches often require larger datasets to ensure reliability and statistical validity (Schwert, 1989; Harris, 1995). Given these limitations, the decision to exclude the time index was intended to prioritize the robustness of the regression model and maintain a focus on the direct relationships among the key variables. Future studies with larger

datasets could incorporate time-specific variables to capture temporal dynamics more comprehensively.

Multicollinearity Test: Variance Inflation Factor (VIF)

Variance Inflation Factor (VIF) is a commonly used diagnostic tool to detect multicollinearity. However, it is sensitive to sample size, and its reliability diminishes with small datasets (Gujarati & Porter, 2009). A small number of observations increases the variability of the estimates, making it difficult to interpret VIF values accurately. Moreover, Pearson correlation, while less robust, was used as a simpler alternative to gauge collinearity due to the limited data points, a strategy supported by similar small-sample studies (Mansfield & Helms, 1982).

Heteroscedasticity Test

Heteroscedasticity tests, such as the Breusch-Pagan test or visual inspections with scatter plots and best-fit lines, require a sufficient number of observations to detect patterns in residual variance (Kmenta, 1986). With fewer observations, the power of these tests is significantly reduced, leading to inconclusive results. Scatterplots were included to provide a visual check, though their interpretative power was limited by the data constraints. The inability to include a line of best fit was due to insufficient variability in the dataset to support reliable regression diagnostics (Wooldridge, 2015).

Stationarity Test

Stationarity tests, such as the Augmented Dickey-Fuller (ADF) test, are crucial for avoiding spurious regression results in time-series analysis (Hamilton, 1994). However, these tests are highly sensitive to small sample sizes, which can lead to false acceptance or rejection of the null hypothesis of a unit root (Schwert, 1989). Studies recommend a minimum of 30–50 observations for reliable stationarity testing (Perron, 1989), a threshold that this study could not meet despite extensive efforts to collect data from reputable sources like the Central Bank of Kenya and the World Bank.

Co-Integration Test

Co-integration tests, including the Johansen and Engle-Granger methods, require a sufficient number of data points to establish meaningful long-run relationships between variables. Small sample sizes can lead to overestimation or underestimation

of co-integration parameters (Johansen, 1995). According to Harris (1995), co-integration testing is generally unreliable with fewer than 30 observations due to the increased risk of Type I and Type II errors. Given that the study's dataset included only 17 observations, it was deemed inappropriate to perform these tests.

3.7 Research Quality

Research quality addresses two aspects of research – validity and reliability. Provisions made to address the two aspects are discussed in the respective sections below.

3.7.1 Validity

Two key dimensions of validity are considered: internal validity and external validity. Internal validity pertains to how accurately the data collected represents the study's constructs (Kothari, 2004). External validity, on the other hand, concerns the extent to which the findings can be generalized to the broader study population. To ensure internal validity, data will be collected exclusively from credible sources, such as the World Bank (2022), an institution officially tasked with gathering and maintaining precise and reliable data.

Internal validity was addressed through the meticulous selection of reputable sources for data collection, namely the World Bank Data repository (Central Bank of Kenya, 2022; World Bank, 2022). This approach guarantees that the data reflects accurate representations of the constructs under investigation, thereby minimizing the risks of biases that could distort the study's outcomes. The use of secondary data from these authoritative sources ensures a high degree of data integrity and authenticity, foundational for establishing internal validity (Kothari, 2004).

External validity, concerning the generalizability of the study's findings to the broader population, was enhanced by the careful operationalization of variables and the employment of an ordinary least squares approach for data analysis. This statistical method, known for its utility in inferring relationships between variables on a ratio/continuous scale (Mahsin, 2022), supports the study's aim to explore the intricate dynamics between foreign direct investment, external debt, merchandise trade, and the stability of banks in Kenya. By leveraging the robust analytical framework, the study ensured that its conclusions are not only relevant to the specific context of Kenya's

banking sector but may also offer insights applicable to similar emerging market contexts.

Moreover, the inclusion of control variables in the regression model accounts for additional factors that could influence the financial stability of banks (Musau et al., 2018). This comprehensive approach to data analysis underlines the study's commitment to external validity by considering a broad spectrum of influencing factors, thus enhancing the applicability and relevance of its findings beyond the immediate research setting.

3.7.2 Reliability

Reliability speaks to the consistency in data (Kothari, 2004). This concern was assessed through collection of data from the World Bank (2022). The sources detail the manner through which data is collected and reported upon with discrepancies to the process and definitions of the data put forth are, where applicable, presented. The manner of reporting thus allows for the inference of reliability in findings proceeding from the collected data.

3.8 Ethical Considerations

The study's approach to addressing concerns of confidentiality, anonymity, informed consent, and ethical clearance reflects a thorough understanding of the ethical considerations inherent in research. By relying exclusively on secondary data that is publicly accessible, the research sidestepped the ethical pitfalls associated with the collection of primary data, such as the potential for violating participants' privacy or the risk of harm. Secondary data, especially data made available by reputable institutions like the Central Bank of Kenya and the World Bank, was collected and published with the consent of subjects involved, if any, thereby eliminating the need for direct consent in the context of this study (Central Bank of Kenya, 2022; World Bank, 2022).

Moreover, the use of publicly accessible data ensures that the study does not engage in practices that could compromise the confidentiality of individual or institutional identities. This approach aligns with ethical research practices that prioritize the protection of subjects' identities and personal information (Israel & Hay, 2006). The

anonymity of subjects, therefore, was inherently maintained, as the secondary data does not necessitate, nor does it include identifiable personal information about individuals.

The consultation with the National Commission for Science, Technology & Innovation Headquarters (NACOSTI) underscores the study's commitment to upholding the highest ethical standards. NACOSTI's role in this process is to ensure that the research conforms to the prescribed ethical guidelines, including those related to the use of secondary data. This step was crucial for verifying that all aspects of the study, from data collection to analysis and reporting, adhere to recognized ethical norms and standards (NACOSTI, 2022). The commission's oversight helps to reinforce the credibility of the research, ensuring that it respects the principles of ethical conduct in scientific inquiry. Strathmore's Ethical Approval Board was further required to provide commentary on the study procedure to ensure adherence to the university's ethical guidelines.

In addition to consulting NACOSTI, the research's adherence to ethical standards was further manifested in its commitment to transparency and accountability. The research design and methodology are structured to ensure that the study's objectives, data sources, and analytical techniques are clearly articulated and accessible. This openness not only facilitated the reproducibility of the study's findings but also ensures that the research community and the wider public can scrutinize and evaluate the ethical integrity of the research process.

3.9 Chapter Summary

This third chapter elucidated the methodological framework adopted for the study. It begins by articulating the research philosophy, which adheres to positivism, suggesting that the study seeks to objectively understand the relationships between the variables under investigation. The research design, described as descriptive-correlational, is chosen to explore trends and infer the interrelationships between FDI, external debt, merchandise trade, and bank stability in Kenya. This chapter details the population and sampling strategy, emphasizing that the study's findings will be generalizable to Kenya. Data collection methods are outlined, with data to be sourced from the World Bank Data repository. The chapter also discusses the data analysis

technique, specifically the Ordinary Least Squares (OLS) regression model, to analyze the relationships between the variables. The chapter concludes with a discussion on research quality, addressing validity and reliability, and ethical considerations, setting the stage for the rigorous examination of the study's hypotheses.

CHAPTER FOUR
ANALYSIS AND FINDINGS

4.1 Introduction

This chapter outlines the analysis and results of the study investigating the impact of Foreign Direct Investment (FDI), external debt stock, and merchandise trade on bank stability in Kenya. The analysis is based on data from credible sources and employs statistical techniques to evaluate the relationships among the variables. The chapter is organized into sections covering data availability, descriptive statistics, correlation analysis, regression analysis, and a summary of the key findings.

4.2 Data Availability

The data for this study was sourced from the World Bank Data Repository, focusing on Kenya and spanning from the 1960s to 2022. The study examines seven variables, including bank stability metrics like the capital to assets ratio, liquid reserves to assets ratio, non-performing loans, foreign direct investment net inflows, external debt stocks, merchandise trade as a percentage of GDP, and the number of commercial bank branches per 100,000 adults. Due to inconsistencies in data availability, especially for earlier years, the analysis was constrained to the period from 2006 to 2022 to maintain accuracy across all variables. Pairwise deletion was employed, resulting in 139 datapoints, to maximize the use of available information, ensuring that the dataset remained as comprehensive as possible within these constraints.

4.3 Descriptive Statistics

Descriptive statistics are essential for grasping the fundamental characteristics of the data used in this study. This section provides an overview of the data on bank stability, foreign direct investment (FDI), external debt, and merchandise trade in Kenya through line graphs. These visual representations will illustrate the trends and patterns over time, offering a clear and concise picture of the economic environment and financial health of the banking sector in Kenya. By examining the line graphs, we can observe changes in key variables, identify any significant shifts or anomalies, and understand the overall trajectory of these metrics. This visual approach not only simplifies the interpretation of data but also highlights the central tendencies and

dispersion within the dataset. The line graphs will set the stage for more detailed inferential analyses, ensuring that our findings are grounded in a thorough understanding of the underlying trends. The following sections will present these line graphs for each of the key variables, providing a comprehensive view of the financial landscape in Kenya. Table 4.1 provides a summary of the descriptive statistics with subsequent sections delving deeper into observed descriptive insights.

Table 4.1 Descriptive statistics
Source: Researcher (2024)

Statistic	BCAR	BLR:BAR	EDS	FDI	MT	CBB	BNL:TGL
Nbr. of observations	17	17	17	17	17	17	17
Nbr. of missing values	0	0	0	0	0	1	0
Median	11.959	9.257	27.916	469940266.777	34.630	4.855	8.586
Mean	11.869	9.075	29.106	640959993.908	32.943	4.698	8.233
Standard deviation (n-1)	0.856	1.667	6.024	455308630.457	7.872	0.770	2.847

The study's findings indicate that several international financial and trade factors significantly impact the stability of banks in Kenya. Foreign Direct Investment (FDI) shows variability but generally contributes positively to the banking sector by providing additional capital, although the high standard deviation suggests the need for consistent policy to attract stable investment inflows. External Debt Stocks (EDS) have a significant impact on the financial health of banks, as high levels of external debt can strain national income and affect banks' stability. Merchandise Trade (MT) highlights the importance of international trade in Kenya's economy, with its substantial share of GDP reflecting its critical role in economic activities and bank stability. Bank Liquidity (BLR) is maintained at a stable level, crucial for managing financial shocks and ensuring solvency. Lastly, Nonperforming Loans (BNL) reveal challenges in loan performance, emphasizing the need for robust risk management practices within the banking sector.

4.3.1 Bank Stability

The graph illustrating the BCAR from 2006 to 2022 (Figure 4.1) provides valuable insights into the stability of Kenya's banking sector. The bank capital to assets ratio, a critical financial stability metric, reflects the proportion of a bank's capital relative to

its total assets. A higher ratio indicates a stronger financial buffer, equipping banks to absorb potential losses and remain solvent during economic challenges. This study focuses on assessing how foreign direct investment (FDI), external debt, and merchandise trade influence the stability of banks in Kenya, with the BCAR serving as a vital indicator for evaluating this stability.

From 2006 to 2010, the ratio starts around 10% and shows an initial increase, reflecting a period where banks possibly strengthened their capital positions in response to regulatory requirements or in anticipation of economic volatility. Between 2011 and 2015, the ratio maintains a relatively stable trend, hovering around 12%. This stability indicates a period where banks managed to maintain their capital buffers, possibly benefiting from economic growth and prudent risk management practices. From 2016 to 2020, the ratio experiences some fluctuations but remains within the 12-14% range. This period includes significant economic events such as the global financial crisis aftermath and varying economic policies, suggesting that banks had to adjust their capital strategies to cope with external pressures. In 2021 and 2022, a slight decline is observed, bringing the ratio closer to 12%. This could indicate emerging challenges, such as increased lending risks or economic uncertainties, impacting banks' ability to sustain high capital levels.

The observed trend shows that Kenyan banks have generally maintained a healthy capital to assets ratio over the study period, which is crucial for sustaining financial stability. The fluctuations and recent slight decline suggest that while banks have been resilient, they face ongoing challenges that require continuous monitoring and adaptive strategies. The bank capital to assets ratio graph highlights the dynamic nature of bank stability in Kenya. It underscores the importance of maintaining robust capital buffers to withstand economic shocks and sustain financial stability. This trend analysis serves as a foundation for further examining how external factors like FDI, external debt, and merchandise trade influence this critical stability metric.

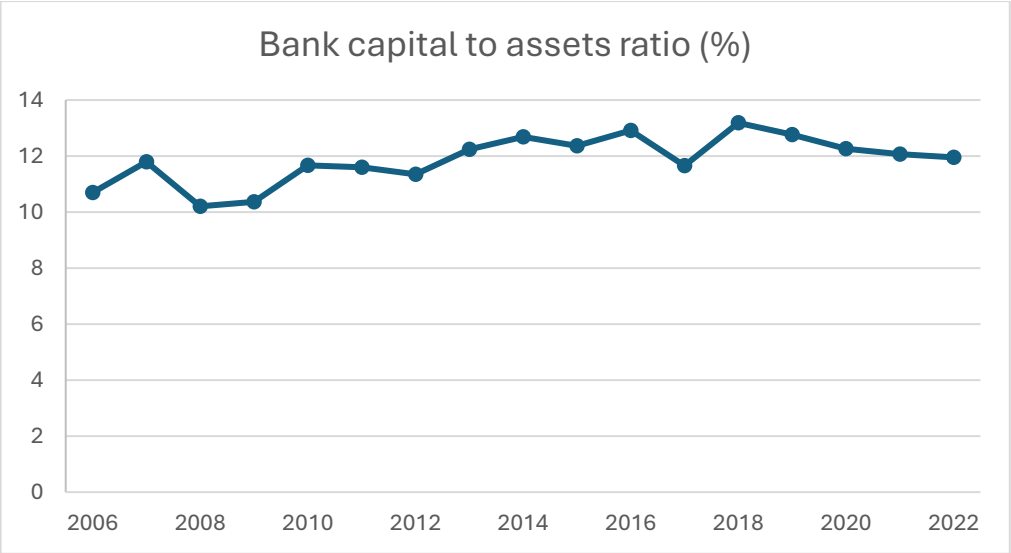

Figure 4.1 Bank stability to asset ratio
Source: Researcher (2024)

4.3.2 FDI

Figure 4.2, which depicts foreign direct investment (FDI) net inflows in current US dollars from 1960 to 2022, highlights key trends and fluctuations in foreign investment in Kenya. Understanding these trends is crucial for this study, which examines the impact of FDI, external debt, and merchandise trade on the stability of banks in Kenya, emphasizing the importance of FDI as a contributing factor.

The graph shows that from 1960 to around 2000, FDI net inflows were relatively low and stable, indicating limited foreign investment activity during this period. This stability may reflect Kenya's economic and political conditions, which may not have been highly attractive to foreign investors. However, around the year 2000, there is a noticeable increase in FDI net inflows, marking the beginning of a significant upward trend. This surge could be attributed to economic reforms, improved investment climate, or increased global interest in emerging markets.

Between 2000 and 2010, the graph depicts a sharp rise in FDI inflows, reaching peaks of over 1.4 billion US dollars. This period of increased investment coincides with economic growth and greater integration into the global economy, suggesting that

Kenya became a more attractive destination for foreign capital. The peaks and troughs observed during this period could reflect global economic conditions, policy changes, or specific large investments entering and exiting the country.

After 2010, FDI inflows show a pattern of significant fluctuations, with notable peaks and sharp declines. This volatility indicates a period of uncertainty and potential challenges in maintaining consistent foreign investment levels. Factors contributing to this instability could include global financial crises, domestic economic policies, political instability, or changes in the regulatory environment.

In recent years, the graph shows a declining trend in FDI net inflows, which could signal emerging challenges for Kenya in attracting and retaining foreign investments. This decline may have implications for the stability of the banking sector, as reduced foreign investment can impact economic growth and the availability of capital.

Overall, the graph highlights the dynamic nature of FDI inflows in Kenya over the decades, with periods of significant growth and sharp declines. Understanding these trends is crucial for evaluating the impact of FDI on bank stability, as fluctuations in foreign investment can influence economic conditions and the financial health of the banking sector. This analysis provides a foundation for further exploring the relationship between FDI and bank stability in Kenya, as outlined in the study's objectives.

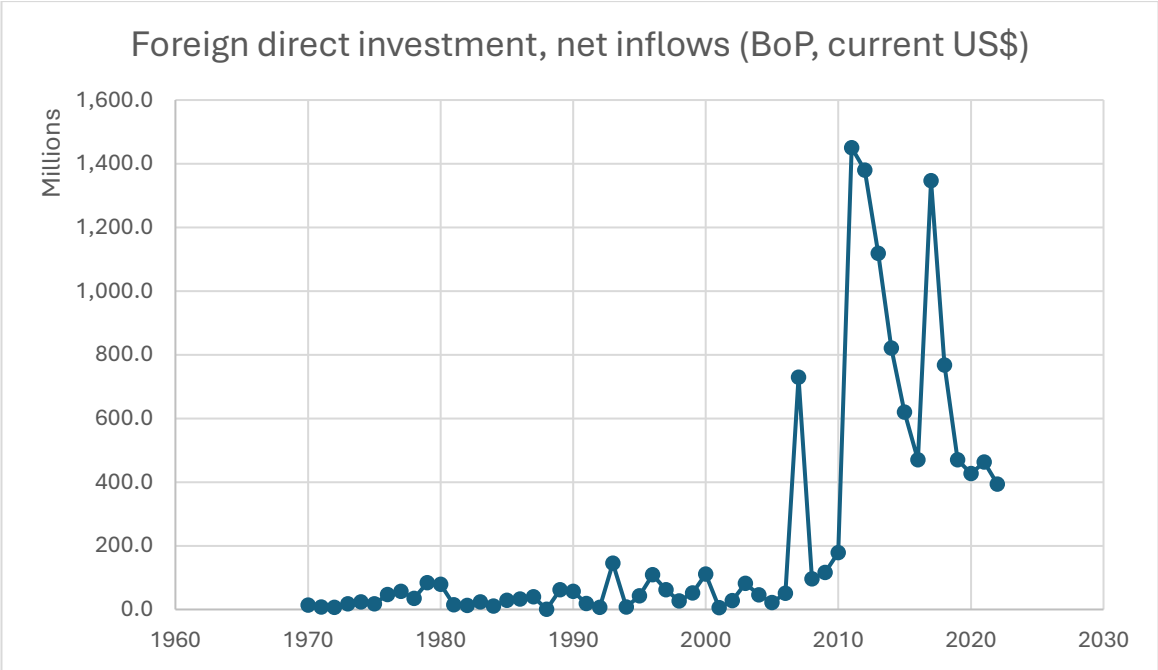

Figure 4.2 FDI
Source: Researcher (2024)

4.3.3 External Debt

Figure 4.3, which illustrates external debt stocks as a percentage of Gross National Income (GNI) from 1960 to 2022, offers important insights into Kenya's dependence on external financing and its potential effects on the stability of the banking sector. Evaluating the impact of external debt, alongside foreign direct investment (FDI) and merchandise trade, on bank stability is a key objective of this study.

The graph shows a gradual increase in external debt stocks from the 1960s, peaking dramatically around the late 1990s to early 2000s. This peak, which exceeds 120% of GNI, indicates a period of significant borrowing. Such a high level of external debt could be attributed to a variety of factors, including economic policies aimed at stimulating growth, addressing fiscal deficits, or responding to economic crises. The high debt levels during this period might have placed considerable strain on Kenya's economy, affecting its creditworthiness and potentially leading to challenges in managing debt repayment obligations.

Following the peak, there is a sharp decline in external debt stocks as a percentage of GNI in the early 2000s. This reduction could result from debt relief initiatives,

structural adjustment programs, or concerted efforts by the Kenyan government to manage and reduce its debt burden. The decline suggests a period of relative economic stabilization and improved fiscal management, which would have positively impacted the financial health of the banking sector by reducing the risks associated with high external debt.

In recent years, the graph shows a resurgence in external debt stocks, though at a more moderate level compared to the peak in the late 1990s. This increase may reflect renewed borrowing to finance development projects, infrastructure investments, or to manage economic challenges such as the global financial crisis and the COVID-19 pandemic. While the current levels of external debt are lower than the historical peak, the upward trend indicates a continued reliance on external financing.

Overall, it is apparent that the fluctuating nature of Kenya's external debt over the decades, with significant peaks and declines. These trends provide essential context for evaluating the relationship between external debt and the stability of the banking sector, as outlined in the study's objectives. This analysis underscores the importance of prudent debt management and its implications for maintaining financial stability in Kenya.

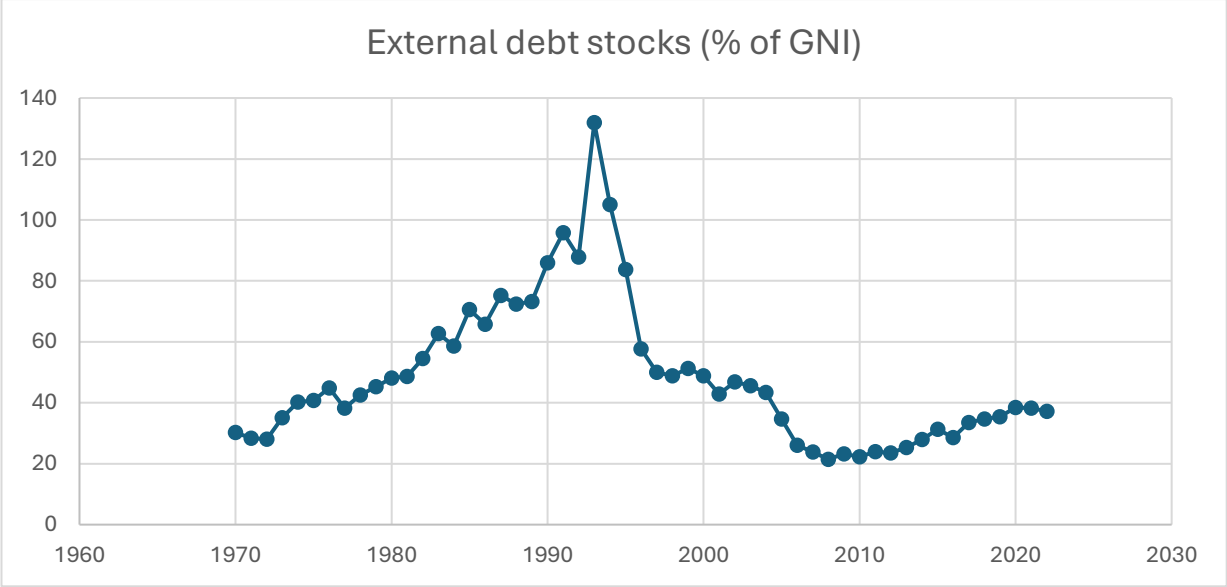

Figure 4.3 External Debt stock
Source: Researcher (2024)

4.3.4 Merchandise Trade

Figure 4.4 illustrating merchandise trade as a percentage of GDP from 1960 to 2022 provides valuable insights into Kenya's engagement with international trade and its potential impact on the stability of the banking sector. Evaluating the influence of merchandise trade, along with foreign direct investment (FDI) and external debt, on bank stability in Kenya is a core objective of this study.

From the 1960s to the late 1980s, the graph shows that merchandise trade as a percentage of GDP remained relatively high, fluctuating between 40% and 50%. This period likely reflects a strong integration into global trade markets, with substantial export and import activities contributing significantly to the economy. The high levels of merchandise trade suggest a robust interaction with international markets, which could have provided diverse revenue streams and enhanced economic resilience.

Entering the 1990s, a notable decline in merchandise trade as a percentage of GDP is observed, dropping to around 30%. This decrease could be attributed to various factors such as changes in trade policies, economic restructuring, or global market conditions that affected Kenya's trade volumes. The fluctuations during this period indicate periods of adjustment as the country navigated through economic transitions and responded to external economic pressures.

The early 2000s show a brief resurgence in merchandise trade, with percentages rising again to approximately 40%. This revival may correspond to efforts to boost trade through economic reforms, regional trade agreements, or increased competitiveness in certain sectors. However, this upward trend did not sustain, as the graph indicates a subsequent decline in merchandise trade's contribution to GDP.

From the mid-2000s to the present, the graph depicts a steady downward trend, reaching around 20% by 2022. This significant reduction suggests a relative decline in the importance of merchandise trade in Kenya's economy. Factors contributing to this trend could include increased focus on domestic markets, changes in the global trade environment, or a shift towards service-oriented sectors. The decline in merchandise trade as a percentage of GDP may also reflect structural changes in the economy and evolving economic priorities.

Understanding these trends is essential for assessing the impact of merchandise trade on bank stability. High levels of merchandise trade can support economic stability by diversifying income sources and promoting economic growth, which in turn can enhance the financial stability of banks. Conversely, a declining trend in trade can signal potential challenges, such as reduced foreign exchange earnings and increased vulnerability to external shocks.

Overall, the graph highlights the dynamic nature of Kenya's merchandise trade over the decades, with periods of high engagement and significant declines. These trends provide critical context for evaluating the relationship between merchandise trade and bank stability, as outlined in the study's objectives. This analysis underscores the importance of maintaining a balanced and diversified trade portfolio to support economic stability and the resilience of the banking sector in Kenya.

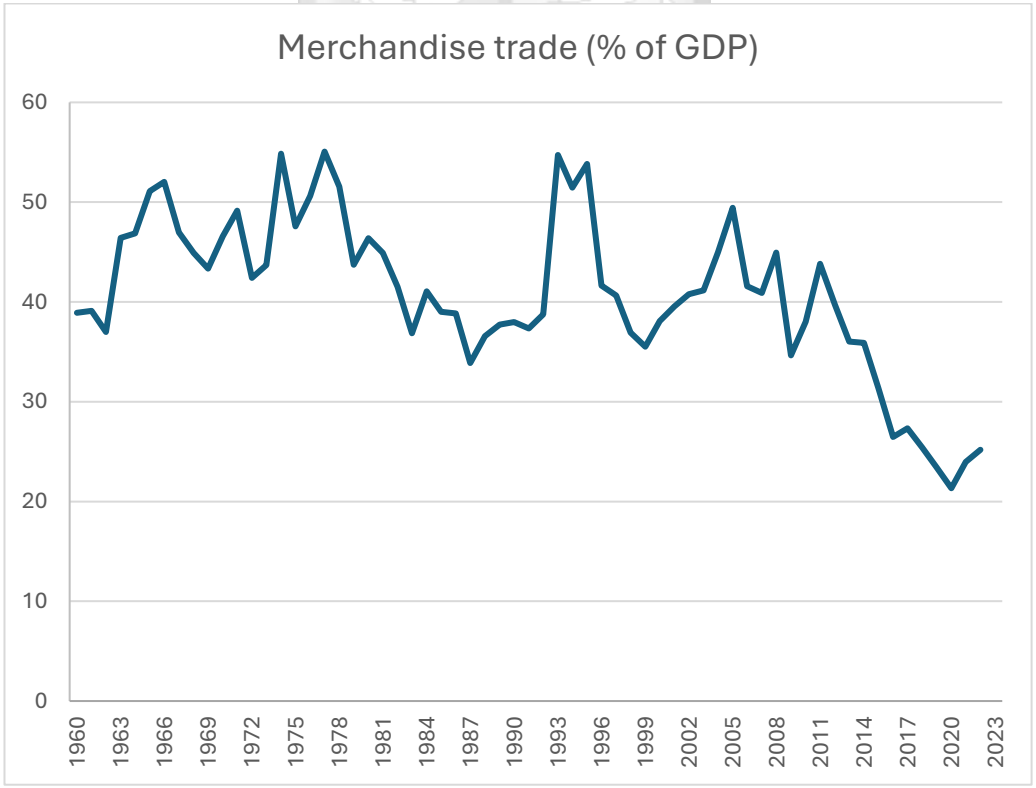

Figure 4.4 Merchandise trade
Source: Researcher (2024)

4.4 Effect of FDI on the Stability of Banks in Kenya

In this section, inferential statistical methods are employed to examine the relationships between the key variables of interest: foreign direct investment (FDI), external debt, merchandise trade, and bank stability in Kenya. Following the correlation analysis, OLS regression is conducted to explore the causal relationships and quantify the impact of FDI, external debt, and merchandise trade on bank stability. The regression model allows for controlling additional factors and provides a more detailed understanding of how these variables influence bank stability over time. This comprehensive approach enables us to draw more robust conclusions about the interplay between international economic factors and the financial health of the banking sector in Kenya. The results of these inferential analyses are discussed in the subsequent sections, providing a thorough examination of the data and shedding light on the study's objectives.

4.4.1 Pearson Correlation Analysis

The correlation analysis findings presented in Table 4.2 offer valuable insights into the relationships between key variables in this study, including bank stability indicators, foreign direct investment (FDI), external debt, merchandise trade, and control variables. Pearson's correlation coefficients and their significance levels reveal the direction and strength of these relationships.

The bank capital to assets ratio shows significant positive correlations with external debt stocks ($r = 0.576$, $p = 0.016$) and the number of commercial bank branches ($r = 0.587$, $p = 0.017$), indicating that higher levels of external debt and a greater presence of bank branches are associated with increased bank capital. Conversely, it exhibits a significant negative correlation with merchandise trade ($r = -0.640$, $p = 0.006$), suggesting a trade-off between engaging in merchandise trade and maintaining high capital reserves.

Bank liquid reserves to bank assets ratio is positively correlated with merchandise trade ($r = 0.698$, $p < 0.001$), highlighting the importance of liquidity management in banks engaged in substantial trade activities. However, a significant negative correlation is observed between bank liquid reserves and nonperforming loans ($r = -$

0.494, p = 0.044), indicating that higher levels of nonperforming loans are associated with lower liquid reserves.

External debt stocks have significant positive correlations with both the bank capital to assets ratio and nonperforming loans, with coefficients of 0.576 (p = 0.016) and 0.683 (p = 0.002), respectively. This suggests that higher external debt is linked to higher bank capital and increased levels of nonperforming loans, indicating a complex interplay where external debt influences both the robustness and risk exposure of banks. Additionally, a significant negative correlation with FDI net inflows (r = -0.410, p = 0.002) suggests that higher external debt levels might deter foreign investment.

FDI net inflows exhibit a positive correlation with the number of commercial bank branches (r = 0.643, p = 0.004), indicating that higher FDI is associated with an expansion in the banking network. However, FDI shows a significant negative correlation with merchandise trade (r = -0.406, p = 0.003), suggesting that as foreign investment increases, merchandise trade tends to decrease.

Merchandise trade shows a significant positive correlation with bank liquid reserves (r = 0.698, p < 0.001), underscoring that increased trade activities bolster liquidity in banks. Conversely, significant negative correlations are observed with both the number of bank branches (r = -0.584, p = 0.011) and nonperforming loans (r = -0.578, p = 0.015), suggesting that higher merchandise trade is associated with fewer bank branches and lower levels of nonperforming loans.

The correlation analysis reveals intricate relationships between the study's variables, providing a foundational understanding of how FDI, external debt, and merchandise trade relate to bank stability in Kenya. These insights pave the way for a more detailed examination through regression analysis to unravel the causal relationships and their implications for the financial health of the banking sector.

Table 4.2 Correlations
Source: Researcher (2024)

Correlations

		BCAR	BLR: BAR(%)	EDS	FDI	MT	CBB	BNL: TGL
BCAR	Pearson Correlation	1	-.319	.576*	.279	-.640**	.587*	.095
	Sig. (2-tailed)		.211	.016	.278	.006	.017	.718
	N	17	17	17	17	17	16	17
BLR: BAR(%)	Pearson Correlation	-.319	1	-.145	-.118	.698**	-.401	-.494*
	Sig. (2-tailed)	.211		.518	.602	.000	.099	.044
	N	17	22	22	22	22	18	17
EDS	Pearson Correlation	.576*	-.145	1	-.410**	.233	-.201	.683**
	Sig. (2-tailed)	.016	.518		.002	.093	.425	.002
	N	17	22	53	53	53	18	17
FDI	Pearson Correlation	.279	-.118	-.410**	1	-.406**	.643**	-.440
	Sig. (2-tailed)	.278	.602	.002		.003	.004	.077
	N	17	22	53	53	53	18	17
MT	Pearson Correlation	-.640**	.698**	.233	-.406**	1	-.584*	-.578*
	Sig. (2-tailed)	.006	.000	.093	.003		.011	.015
	N	17	22	53	53	63	18	17
CBB	Pearson Correlation	.587*	-.401	-.201	.643**	-.584*	1	-.421
	Sig. (2-tailed)	.017	.099	.425	.004	.011		.104
	N	16	18	18	18	18	18	16
BNL: TGL	Pearson Correlation	.095	-.494*	.683**	-.440	-.578*	-.421	1
	Sig. (2-tailed)	.718	.044	.002	.077	.015	.104	
	N	17	17	17	17	17	16	17

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

4.4.2 Regression Analysis

The regression analysis section delves deeper into the relationships identified through the correlation analysis by employing Ordinary Least Squares (OLS) regression models. This approach quantifies the impact of foreign direct investment (FDI), external debt, and merchandise trade on bank stability in Kenya while controlling for other relevant factors such as the number of commercial bank branches and the levels of nonperforming loans. By utilizing OLS regression, the analysis assesses the extent to which these independent variables influence key indicators of bank stability, providing a robust framework to understand the dynamics at play. This analysis aims to offer more definitive insights into the causal relationships between international financial factors and the stability of the Kenyan banking sector, thereby addressing the core objectives of this study.

4.4.2.1 Test of Normality of the Dependent Variable

To ensure the validity of the Ordinary Least Squares (OLS) regression analysis, it is imperative to ascertain the normality of the dependent variable, namely the Bank Capital to Assets Ratio (BCAR). Two widely accepted statistical tests, the Kolmogorov-Smirnov test and the Shapiro-Wilk test, were employed to evaluate the distributional characteristics of this variable.

The Kolmogorov-Smirnov test yielded a test statistic of 0.143 with an associated p-value of 0.200. Given that this p-value exceeds the conventional significance level of 0.05, there is insufficient evidence to reject the null hypothesis positing a normal distribution. Consequently, one may infer that the distribution of the BCAR does not deviate significantly from normality.

Similarly, the Shapiro-Wilk test produced a test statistic of 0.952, accompanied by a p-value of 0.481. This result aligns with that of the Kolmogorov-Smirnov test, as the p-value surpasses the 0.05 threshold, lending further support to the null hypothesis of normality. Thus, the Shapiro-Wilk test corroborates the conclusion that the BCAR approximates a normal distribution.

The concordant results of both the Kolmogorov-Smirnov and Shapiro-Wilk tests provide robust evidence that the BCAR does not exhibit significant departures from normality. These findings substantiate the critical assumption of normality, which is a fundamental prerequisite for the application of OLS regression analysis. Consequently, one may proceed with confidence in the reliability and robustness of the subsequent OLS regression results, as they are predicated on the empirically supported premise of a normally distributed dependent variable. This methodological validation enhances the credibility of the ensuing regression analysis, facilitating a more rigorous exploration of the causal relationships between foreign direct investment, external debt, merchandise trade, and bank stability in the Kenyan context.

Table 4.3 Test of normality
Source: Researcher (2024)

Tests of Normality						
	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
BCAR	.143	17	.200*	.952	17	.481
*. This is a lower bound of the true significance.						
a. Lilliefors Significance Correction						

4.4.2.2 Test of Multicollinearity

The correlation matrix (table 4.4) reveals that while there are statistically significant relationships among some of the independent variables, the correlation coefficients are not high enough to suggest severe multicollinearity i.e. lower than 0.8 (Saunders et al., 2012). Most correlations fall within a range that is considered moderate, indicating that the independent variables are related but not to an extent that would distort the regression analysis. Consequently, the risk of multicollinearity adversely affecting the reliability of the regression coefficients is low, and the regression analysis can proceed with reasonable confidence in the results.

Table 4.4 Multicollinearity
Source: Researcher (2024)

Correlations							
		BLR:BAR(%)	EDS	FDI	MT	CBB	BNL:TGL
BLR:BAR(%)	Pearson Correlation	1	-.145	-.118	.698**	-.401	-.494*
	Sig. (2-tailed)		.518	.602	.000	.099	.044
	N	22	22	22	22	18	17
EDS	Pearson Correlation	-.145	1	-.410**	.233	-.201	.683**
	Sig. (2-tailed)	.518		.002	.093	.425	.002
	N	22	53	53	53	18	17
FDI	Pearson Correlation	-.118	-.410**	1	-.406**	.643**	-.440
	Sig. (2-tailed)	.602	.002		.003	.004	.077
	N	22	53	53	53	18	17
MT	Pearson Correlation	.698**	.233	-.406**	1	-.584*	-.578*
	Sig. (2-tailed)	.000	.093	.003		.011	.015
	N	22	53	53	63	18	17
CBB	Pearson Correlation	-.401	-.201	.643**	-.584*	1	-.421
	Sig. (2-tailed)	.099	.425	.004	.011		.104
	N	18	18	18	18	18	16
BNL:TGL	Pearson Correlation	-.494*	.683**	-.440	-.578*	-.421	1
	Sig. (2-tailed)	.044	.002	.077	.015	.104	
	N	17	17	17	17	16	17
*. Correlation is significant at the 0.05 level (2-tailed).							
**. Correlation is significant at the 0.01 level (2-tailed).							

4.4.2.3 Linear Relationship Between Variables

The correlation analysis indicates significant linear relationships (above 0.3) between the bank capital to assets ratio and several independent variables, particularly external debt stocks and merchandise trade. The correlation between bank capital to assets ratio

and FDI was 0.279 hence deemed satisfactory for the current study's assessment of the relationship between the two variables (Saunders et al., 2012). These findings provide a preliminary understanding of how these factors may influence bank stability, highlighting the importance of considering external debt and trade activities in the context of banking sector health. The observed relationships will be further explored and quantified in the subsequent regression analysis to draw more robust conclusions about their impact on bank stability in Kenya.

The scatter plot (figure 4.5) presented above visualizes the linear relationship between the regression standardized predicted values and the regression standardized residuals for the dependent variable, the BCAR. This analysis is essential for verifying the assumptions of linearity and homoscedasticity in the regression model.

The scatter plot does not show a clear pattern or curvature, which indicates that there is no major deviation from linearity. The absence of a distinct curved pattern suggests that the relationship between the independent variables (such as foreign direct investment, external debt, and merchandise trade) and the bank capital to assets ratio can be appropriately modeled using a linear regression approach.

Homoscedasticity refers to the assumption that the variance of the residuals is constant across all levels of the predicted values. In the scatter plot, the residuals appear to be spread out evenly across the range of predicted values. There is no evident funnel shape or systematic pattern, which indicates that the assumption of homoscedasticity is reasonably met. The even distribution of residuals suggests that the variance of errors remains constant, further validating the use of OLS regression.

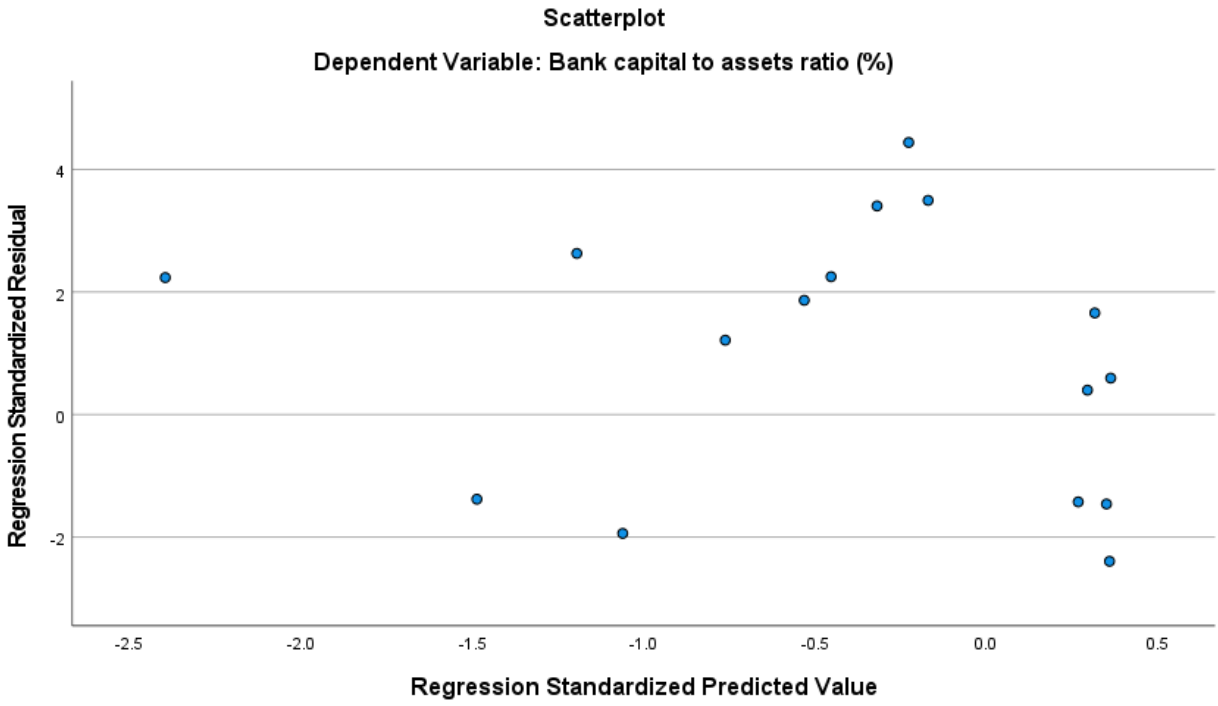

Figure 4.5 Scatter Plot
Source: Researcher (2024)

4.4.2.4 Breusch-Pagan Test

The Breusch-Pagan test was implemented to evaluate the potential presence of heteroscedasticity within the regression model. Heteroscedasticity, a phenomenon characterized by non-constant variance of residuals across the spectrum of independent variables, can potentially compromise the efficiency of estimates and undermine the validity of hypothesis testing (Breusch & Pagan, 1979).

In the context of this investigation, the Breusch-Pagan test produced a p-value of 0.133. This value, being in excess of the conventional significance threshold of 0.05, fails to provide statistically significant evidence for the presence of heteroscedasticity. Consequently, one may infer that the assumption of homoscedasticity, which posits constant variance of residuals, is not violated in this regression model. This finding lends credence to the reliability of the model's estimates and bolsters confidence in the validity of subsequent hypothesis tests derived from this regression analysis.

Table 4.5 Residual ANOVA
Source: Researcher (2024)

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.752	6	.125	2.239	.133[b]
	Residual	.504	9	.056		
	Total	1.255	15			
a. Dependent Variable: sqres						
b. Predictors: (Constant), Bank nonperforming loans to total gross loans (%), Commercial bank branches (per 100,000 adults), Foreign direct investment, net inflows (BoP, current US$), Bank liquid reserves to bank assets ratio (%), External debt stocks (% of GNI), Merchandise trade (% of GDP)						

4.4.2.5 Regression Output

The R value, also known as the correlation coefficient, is 0.941 (table 4.6). This high value indicates a strong positive correlation between the observed and predicted values of the bank capital to assets ratio. R Square (R^2), which is the coefficient of determination, is 0.886. This statistic signifies that approximately 88.6% of the variability in the bank capital to assets ratio can be explained by the independent variables included in the model (FDI, external debt, commercial bank branches, and nonperforming loans). This high R^2 value suggests that the model has a good fit and is effective in explaining the variability of the dependent variable.

The analysis of the data yielded a Durbin-Watson (DW) statistic of 2.47, which is crucial for assessing the presence of autocorrelation in the residuals of the regression model. The DW statistic ranges from 0 to 4, with a value of approximately 2 indicating no autocorrelation. Scores significantly lower than 2 suggest positive autocorrelation, while scores significantly higher than 2 suggest negative autocorrelation (Durbin & Watson, 1951). In this study, the DW score of 2.47 is slightly above the ideal value of 2, indicating a minor presence of negative autocorrelation in the residuals. Negative autocorrelation implies that an increase in one observation is likely followed by a decrease in the next, and vice versa.

The Durbin-Watson score of 2.47 suggests that the residuals of the regression model exhibit a small degree of negative autocorrelation. Although this score deviates slightly from the ideal value of 2, it remains within an acceptable range, indicating that autocorrelation is not a significant problem. According to Kothari (2004), a DW value between 1.5 and 2.5 is generally considered to indicate minimal autocorrelation issues.

Table 4.6 Model Summary
Source: Researcher (2024)

Model Summary[b]									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.941[a]	.886	.844	.337483255999712	.886	21.360	4	11	.000
a. Predictors: (Constant), BNL:TGL, CBB, FDI, EDS									
b. Dependent Variable: BCAR									

The ANOVA analysis (table 4.7) demonstrates that the regression model is statistically significant, with a high F-statistic and a p-value of less than 0.001. This indicates that the independent variables—FDI, external debt stocks, commercial bank branches, and nonperforming loans—collectively provide a robust explanation for the variability in the bank capital to assets ratio. These findings validate the regression model's overall significance and underscore the importance of these predictors in understanding the determinants of bank stability in Kenya.

Table 4.7 ANOVA
Source: Researcher (2024)

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	9.731	4	2.433	21.360	.000[b]
	Residual	1.253	11	.114		
	Total	10.984	15			
a. Dependent Variable: BCAR						
b. Predictors: (Constant), BNL:TGL, CBB, FDI, EDS						

The regression analysis focused on the standardized coefficients (Beta) to provide a consistent interpretation of the relationships between the dependent variable, the bank capital adequacy ratio (BCAR), and the independent variables: external debt stocks, foreign direct investment (FDI), commercial bank branches, and bank nonperforming loans. Standardized coefficients are particularly useful in this context as they account for differences in the measurement scales of the variables, enabling meaningful comparisons.

For foreign direct investment (FDI), the standardized coefficient is 0.210, indicating a positive relationship with BCAR. However, the p-value (0.170) shows that this relationship is not statistically significant at the 0.05 level. This suggests that while FDI might contribute positively to economic stability and growth, its direct impact on the capital adequacy of banks is relatively weak within this model. This finding aligns with literature suggesting that FDI's effects may be more prominent in broader macroeconomic contexts rather than directly influencing specific banking metrics (Adewuyi & Akintande, 2023).

The standardized coefficient for commercial bank branches is 0.548, reflecting a significant and positive relationship with BCAR. The p-value (0.003) and the t-value (3.882) confirm the statistical significance of this variable. This indicates that the expansion of banking networks, as measured by the number of branches per 100,000 adults, strongly contributes to bank stability. This finding highlights the role of banking infrastructure in enhancing capital positions and improving financial stability. For nonperforming loans (NPLs), the standardized coefficient is -0.205, indicating a negative relationship with BCAR. However, the p-value (0.204) suggests that this relationship is not statistically significant. While higher levels of NPLs might intuitively weaken bank stability, the lack of statistical significance in this model implies that the direct impact of NPLs on BCAR may be moderated by other factors, such as regulatory measures or risk management practices.

Table 4.8 Regression coefficients
Source: Researcher (2024)

Coefficients[a]									
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations		
		B	Std. Error	Beta			Zero-order	Partial	Part
1	(Constant)	8.522	.645		13.216	.000			
	EDS	.033	.005	.912	6.198	.000	.576	.882	.631
	FDI	4.729E-10	.000	.210	1.467	.170	.279	.404	.149
	CBB	.478	.123	.548	3.882	.003	.587	.760	.395
	BNL:TGL	-.062	.046	-.205	-1.352	.204	.095	-.377	-.138
a. Dependent Variable: BCAR									

4.5 Effect of External Debt Stock on the Stability of Banks in Kenya

The standardized coefficient for external debt stocks is 0.912, indicating a strong positive relationship between external debt and BCAR. This suggests that as external debt stocks as a percentage of GNI increase, there is a significant enhancement in bank stability, as reflected by the capital adequacy ratio. The high t-value (6.198) and the p-value ($p < 0.001$) confirm the robustness and significance of this predictor. This finding underscores the role of external financing in bolstering banks' capital buffers, demonstrating its critical importance in the Kenyan banking context.

4.6 Effect of Merchandise Trade on the Stability of Banks in Kenya

The exclusion of merchandise trade from the regression model suggests that it did not provide significant explanatory power for the bank capital to assets ratio in the presence of other predictors. This decision helps to streamline the model, reducing potential multicollinearity and focusing on the variables that most strongly influence bank stability. While merchandise trade is an important economic indicator, its impact on the bank capital to assets ratio may be indirect or mediated through other factors included in the model. This analysis underscores the importance of selecting predictors that offer clear and significant contributions to the model, ensuring accurate and meaningful results.

Table 4.9 Merchandize trade
Source: Researcher (2024)

Excluded Variables[a]						
Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics
						Tolerance
1	MT	.[b]	.	.	.	-1.145
a. Dependent Variable: BCAR						
b. Predictors in the Model: (Constant), BNL:TGL, CBB, FDI, EDS						

4.7 Summary of Findings

This chapter provided a comprehensive analysis of the effects of Foreign Direct Investment (FDI), external debt stocks, and merchandise trade on the stability of banks in Kenya. The analysis began with a discussion on data availability, highlighting the strengths and limitations of the dataset obtained from the World Bank Data Repository. Descriptive statistics were then presented through line graphs, illustrating the trends and patterns of the key variables over time. The Pearson correlation analysis revealed significant linear relationships between the bank capital to assets ratio and several independent variables, particularly external debt stocks and merchandise trade. Following this, Ordinary Least Squares (OLS) regression analysis was conducted to quantify the impact of these variables on bank stability. The regression model demonstrated a strong explanatory power, with external debt stock and the number of commercial bank branches emerging as significant predictors of the bank capital to assets ratio. Tests of normality and multicollinearity confirmed the validity and robustness of the regression model. The chapter concluded with discussions on the exclusion of merchandise trade from the model and the individual effects of external debt and nonperforming loans. Overall, the findings underscore the critical role of external financing and a robust banking network in enhancing bank stability in Kenya, while highlighting the need for careful management of trade activities and nonperforming loans to sustain financial health.

CHAPTER FIVE
DISCUSSION, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter discusses the findings of the study in relation to the existing literature, offering a comprehensive interpretation of how foreign direct investment (FDI), external debt, and merchandise trade influence the stability of banks in Kenya. It aims to contextualize the results within the broader theoretical framework and empirical evidence presented in the literature review.

5.2 Discussion of Findings

The findings of this study provide valuable insights into the intricate relationships between international financial factors and the stability of the banking sector in Kenya. The discussion focuses on the effects of FDI, external debt, and merchandise trade on bank stability, comparing the empirical results with existing theoretical and empirical studies.

5.2.1 Effect of FDI on the Stability of Banks in Kenya

The study's findings reveal that while FDI net inflows are positively correlated with the bank capital to assets ratio, this relationship does not translate into a statistically significant direct impact on bank stability within the regression model. This result is intriguing and somewhat contrary to the expectations set by traditional theories. For instance, Alfaro et al. (2004) argue that FDI should enhance financial stability by providing critical capital, advanced technology, and managerial expertise, thereby bolstering the performance and resilience of the banking sector. However, the Kenyan context presents a unique scenario where these anticipated benefits of FDI do not directly manifest in the stability metrics of banks.

This paradox can be partially explained by the insights of Agbloyor et al. (2014), who suggest that while FDI contributes to financial sector development by fostering competition, innovation, and regulatory improvements, these effects might be indirect and take time to materialize in measurable outcomes like bank stability. In Kenya, the nature of FDI inflows—potentially skewed towards non-financial sectors—coupled with broader macroeconomic challenges, might dilute the direct stabilizing effects that

FDI could offer. Additionally, Noy and Vu (2021) highlight that FDI in emerging markets, particularly in Africa, often enhances capital adequacy and reduces non-performing loans, yet this study suggests that such benefits in Kenya might be overshadowed by other economic dynamics.

The findings compel us to reconsider the assumed universality of FDI's benefits as proposed in classical and neoclassical economic theories. In Kenya, it appears that FDI's impact on bank stability is more complex, perhaps requiring specific conditions or complementary factors to become significant. This insight is crucial for policymakers, who should not only focus on attracting FDI but also on creating an environment where its potential benefits are fully realized within the banking sector.

5.2.2 Effect of External Debt on the Stability of Banks in Kenya

The study demonstrates a significant positive relationship between external debt stocks and the bank capital to assets ratio, suggesting that higher levels of external debt are associated with enhanced bank stability. This finding is consistent with the theoretical perspectives that view external debt as a catalyst for economic growth, which, in turn, supports financial stability. Reinhart and Rogoff (2010) provide a dual perspective on external debt, emphasizing that while it can stimulate growth through productive investments, it can also precipitate financial instability if not managed prudently.

In the Kenyan context, the study's positive correlation between external debt and bank stability resonates with the findings of Mburu (2013), who noted that external borrowing has often been channeled towards infrastructure development and other productive investments, thereby bolstering economic and financial stability. However, this relationship also raises important cautionary notes. The correlation between external debt and non-performing loans, as observed in the study, underscores the potential risks associated with high debt levels. This aligns with the concerns raised by Obstfeld et al. (2010), who argue that external debt must be carefully managed to avoid undermining financial stability, especially in economies susceptible to volatile capital flows and exchange rates.

The essence of this finding lies in the balance that Kenya must strike between leveraging external debt for growth and managing the associated risks to ensure long-

term financial stability. This balance is crucial for sustaining the positive effects of external debt while minimizing its potential to contribute to financial vulnerabilities.

5.2.3 Effect of Merchandise Trade on the Stability of Banks in Kenya

Merchandise trade was excluded from the final regression model due to its lack of significant explanatory power, yet the correlation analysis reveals a significant negative relationship between merchandise trade and the bank capital to assets ratio. This finding challenges the conventional wisdom that trade openness invariably promotes economic growth and financial stability, as posited by Levine (2005) and other proponents of trade liberalization.

The negative relationship observed in this study suggests that in Kenya, high levels of merchandise trade may introduce vulnerabilities rather than enhancing bank stability. This is a critical insight, particularly when considered alongside the findings of Mwega (2014), who highlighted the significant impact of trade policies and external economic shocks on Kenya's financial stability. The exposure to global market fluctuations, trade imbalances, and the challenges of managing trade-related financing risks may outweigh the potential benefits of increased trade activity.

The exclusion of merchandise trade from the regression model underscores the complexity and perhaps the sector-specific nature of its impact on bank stability. While merchandise trade is undoubtedly vital for economic development, its direct influence on banking stability appears to be fraught with risks that need careful management. This nuanced understanding is essential for policymakers, who must recognize that the benefits of trade openness are not guaranteed and may require robust risk mitigation strategies to protect the banking sector from potential destabilizing effects.

5.2.4 Contribution to Theory

The findings of the study align more closely with Keynesian economic theory, which emphasizes the critical role of government intervention, external financing, and investment in fostering economic stability and growth. The strong positive relationship between external debt stocks and bank stability underscores the importance of external financing in providing capital buffers and sustaining financial institutions. This finding resonates with Keynesian principles, which advocate for the use of public and external

resources to stimulate economic activity and support financial systems during times of economic uncertainty. Additionally, the significant impact of banking infrastructure, as measured by the number of commercial bank branches, further highlights the importance of institutional and policy-driven expansion of financial networks, which is consistent with the Keynesian view that active policy measures are essential for economic development. While Neoclassical theory emphasizes market self-regulation and the long-term benefits of private investment like FDI, the study's findings suggest that FDI's impact on bank stability is indirect and context-dependent, reflecting Keynesian insights about the need for targeted investments and structural support. Based on these findings, the study recommends policies that prioritize external debt management and expansion of banking networks to enhance financial stability, aligning with Keynesian approaches to economic planning and intervention.

5.3 Conclusion

The conclusion of this study highlights the intricate relationships between foreign direct investment (FDI), external debt, merchandise trade, and bank stability in Kenya. The findings indicate that external debt and the expansion of commercial bank branches are significant predictors of bank stability, as measured by the bank capital to assets ratio. Conversely, FDI and merchandise trade showed limited direct impact on bank stability within the regression model. These results underscore the importance of prudent external debt management and strategic expansion of banking infrastructure to enhance financial stability. The study contributes to the understanding of how international financial dynamics and domestic banking policies interact to influence the stability of banks in Kenya.

5.4 Implications of Findings

The implications of the findings are segmented by stakeholders, including policymakers, regulators, bank management, and academicians.

5.4.1 Policymakers

The findings suggest that policymakers should focus on creating an enabling environment for effective external debt utilization. Strategic borrowing aimed at productive investments, such as infrastructure development, can significantly enhance bank stability. Additionally, policies that support the expansion of the banking

network, particularly in underserved areas, can contribute to financial stability. Policymakers should also ensure that trade policies mitigate the potential risks associated with high levels of merchandise trade.

5.4.2 Regulators

Regulatory bodies need to emphasize the importance of maintaining robust capital buffers in banks to absorb potential economic shocks. The significant positive relationship between external debt and bank capital ratios highlights the need for regulatory frameworks that monitor and manage external debt levels. Regulators should also encourage banks to expand their branch networks while ensuring that these expansions are backed by adequate capital and risk management practices.

5.4.3 Bank Management

For bank management, the findings underline the importance of strategic planning in branch expansion and capital management. Banks should leverage external debt opportunities prudently to enhance their capital positions and overall stability. Additionally, bank managers should be aware of the potential risks associated with merchandise trade and implement robust risk management strategies to mitigate these risks. Focusing on reducing nonperforming loans will also be crucial for maintaining financial health.

5.4.4 Academicians

The study provides a foundation for further academic research into the nuanced impacts of FDI and merchandise trade on bank stability. The mixed results regarding FDI and merchandise trade suggest that their effects may be indirect or context-specific, warranting more detailed sectoral or case studies. Academicians can explore the interplay between these variables and other macroeconomic factors to provide deeper insights into financial stability dynamics.

5.5 Limitations

The study acknowledges several limitations that may have influenced its findings and interpretations. Firstly, the small sample size (17 observations) constrained the use of advanced econometric tests, such as stationarity and co-integration analysis. These limitations in data availability, despite efforts to source comprehensive datasets from

reputable organizations like the World Bank and the Central Bank of Kenya, may affect the robustness and depth of the findings. Secondly, while the study included key variables such as foreign direct investment (FDI), external debt, and merchandise trade, it excluded other potentially significant factors influencing bank stability, such as political stability, inflation volatility, regulatory reforms, and technological advancements in the banking sector. These omissions could leave unexplored avenues that might impact the results.

Additionally, the reliance on secondary data from the World Bank and similar sources, though necessary for accuracy and reliability, may introduce biases associated with data collection and reporting practices. For example, differences in definitions or measurement standards over time could affect the comparability of data across years. Fourthly, the study's reliance on standardized coefficients provided interpretive clarity but also limits direct insights into the absolute contributions of variables, which may have policy implications. The inability to use unstandardized coefficients due to disparate measurement scales highlights the challenges of working with heterogeneously scaled datasets.

Finally, the scope of the study was confined to Kenya, making the findings context-specific and potentially non-generalizable to other countries with different economic structures, regulatory environments, and financial systems. Comparative analyses with other nations or regions could have enriched the study by providing a broader understanding of the dynamics influencing bank stability. Future research should aim to address these limitations by expanding the sample size, incorporating additional variables, and conducting comparative analyses across multiple countries or regions to enhance the generalizability and comprehensiveness of the findings.

5.6 Suggestions for Further Studies

Future research should address the limitations identified in this study. Researchers can enhance the robustness of their findings by incorporating more comprehensive and high-frequency data. Expanding the scope to include additional variables such as political stability, regulatory changes, and technological advancements can provide a more holistic view of bank stability determinants. Comparative studies involving other countries or regions can also offer insights into how different economic contexts

influence the relationships between FDI, external debt, merchandise trade, and bank stability. Moreover, qualitative research methods, such as interviews with banking sector stakeholders, could provide deeper insights into the practical implications of external financial dynamics on bank stability.

REFERENCES

Adewuyi, A. O., & Akintande, O. J. (2023). Foreign direct investment and risk management in the African banking sector. *Journal of Risk Finance*, 24(2), 106-123.

Agyapong, A., & Bedjabeng, E. (2020). Foreign direct investment and external debt: Implications for financial development in Africa. *Journal of African Business*, *21*(5), 629-646.

Awe, O. O., Mudida, R., & Gil-Alana, L. A. (2021). Comparative analysis of economic growth in Nigeria and Kenya: A fractional integration approach. *International Journal of Finance & Economics*, *26*(1), 1197-1205.

Blinder, A. S. (2008). Keynesian economics. *The concise encyclopedia of economics*, *2*(008).

Bloomfield, J., & Fisher, M. J. (2019). Quantitative research design. *Journal of the Australasian Rehabilitation Nurses Association*, *22*(2), 27-30.

Boianovsky, M. (2018). When the history of ideas meets theory: Arthur Lewis and the classical economists on development. *History of Political Economy*, *50*(S1), 172-190.

Bratis, T., Laopodis, N. T., & Kouretas, G. P. (2020). Systemic risk and financial stability dynamics during the Eurozone debt crisis. *Journal of financial Stability*, *47*, 100723.

Bush, P. D. (2019). The theory of institutional change. In *Evolutionary Economics: v. 1* (pp. 125-166). Routledge.

Bush, P. D. (2019). The theory of institutional change. In *Evolutionary Economics: v. 1* (pp. 125-166). Routledge.

Central Bank of Kenya. (2022). *Central Bank of Kenya*. CBK. Retrieved November 28, 2022, from https://www.centralbank.go.ke/.

Central Bank of Kenya. (2023). Foreign Exchange Rates. Retrieved on September 9, 2023.

Čihák, M., & Hesse, H. (2010). Islamic banks and financial stability: An empirical analysis. *Journal of Financial Services Research*, *38*, 95-113.

Crotty, J. R. (1980). Post-Keynesian economic theory: An overview and evaluation. *The American Economic Review*, *70*(2), 20-25.

Cytonn Investments. (2021). Review of the Kenyan Shilling Performance. Retrieved on September 9, 2023.

Farrell, D., & Goodman, A. (2013). Government by Design. *McKinsey & Company*, *January 2012*, 1–7. papers2://publication/uuid/844FAF93-20C6-4A66-A41B-A53B6914AC61

Fernandes, N. (2020). Economic effects of coronavirus outbreak (COVID-19) on the world economy.

Galí, J. (2018). The state of New Keynesian economics: a partial assessment. *Journal of Economic Perspectives*, *32*(3), 87-112.

Gupta, A., & Gupta, N. (2022). *Research methodology*. SBPD Publications.

Heremans, D. (2007). Corporate governance issues for banks: A financial stability perspective. *Available at SSRN 1024693*.

Integrity, G. F. (2019). Illicit financial flows to and from 148 developing countries: 2006-2015. Washington, DC: Global Financial Integrity.

International Monetary Fund. (2021). *Global Financial Stability Report: Lower for Longer*. Retrieved from

https://www.imf.org/en/Publications/GFSR/Issues/2021/01/26/global-financial-stability-report-january-2021

Jahan, S., Mahmud, A. S., & Papageorgiou, C. (2014). What is Keynesian economics. *International Monetary Fund*, *51*(3), 53-54.

Kaufman, B. E. (2018). The institutional and neoclassical schools in labor economics. *The Institutionalist Tradition in Labour Economics*, 13-38.

Khan, T., & Muljawan, D. (Eds.). (2006). *Islamic Financial Architecture: Risk Management and Financial Stability: Proceedings of the International Conference on Islamic Banking: Risk Management, Regulation and Supervision, that was Jointly Organized by IRTI, the Bank Indonesia, and the Ministry of Finance, Republic of Indonesia, Held in Jakarta During September 30-October 2, 2003*. Islamic Development Bank, Islamic Research and Training Institute.

Korus, A., & Celebi, K. (2019). The effect of Brexit news on British pound exchange rates. *International Economics and Economic Policy*, *16*(1), 161-192.

Kothari, C. R. (2004). *Research methodology: Methods and techniques*. New Age International.

Kyei, C. B., Cantah, W. G., & Owusu, P. J. (2023). Effect of commodity prices on financial stability; insight from adaptive market hypothesis in the Ghanaian setting. *Resources Policy*, *86*, 104076.

Mahsin, M. (2022). Data Analysis Techniques for Quantitative Study. In *Principles of Social Research Methodology* (pp. 235-255). Springer, Singapore.

Mishkin, F. S. (1999). Financial consolidation: Dangers and opportunities. *Journal of Banking & Finance*, *23*(2-4), 675-691.

Muhammad, A., Muhammad, A., & Muhammad, A. (2021). The Effect of External Debt and Foreign Direct Investment on Economic Growth:

Empirical Evidence from Pakistan. *Journal of Economics and Business*, *4*(1), 1-10.

Musau, S., Muathe, S., & Mwangi, L. (2018). Financial inclusion, GDP and credit risk of commercial banks in Kenya. *International journal of Economics and Finance*, *10*(3), 181-195.

Musau, S., Muturi, W., & Ngugi, K. (2018). The effect of foreign direct investment on financial performance of commercial banks in Kenya. *International Academic Journal of Economics and Finance*, *3*(3), 1-20.

Mutinda, J., & Ojera, P. B. (2022). Foreign direct investment, regulatory environment, and bank performance: Evidence from Kenya. *Journal of African Business*, 23(1), 1-20.

Mwangi, C. I., Wambugu, A., & Omwenga, J. (2022). The role of foreign direct investment in banking sector digitalization. *Journal of Internet Banking and Commerce*, 27(1),

Nepali, S. R. (2020). Shadow Banking and Nepal Rastra Bank: A Policy Review.

North, D. C. (2016). Institutions and economic theory. *The american economist*, *61*(1), 72-76.

Noy, I., & Vu, T. B. (2021). Foreign direct investment and financial stability in emerging markets. *Emerging Markets Review*, 47, 100773.

Obstfeld, M., Shambaugh, J. C., & Taylor, A. M. (2010). Financial stability, the trilemma, and international reserves. *American Economic Journal: Macroeconomics*, *2*(2), 57-94.

Odhiambo, N. M. (2022). Foreign direct investment and economic growth in Kenya: An empirical investigation. *International Journal of Public Administration*, *45*(8), 620-631.

Pasinetti, L. L. (2000). Critique of the neoclassical theory of growth and distribution. *PSL Quarterly Review*, *53*(215).

Raifu, I. A., & Folarin, O. (2020). Effect of financial development on Merchandise trade in Nigeria: A disaggregate analysis. *DBN Journal of Economics and Sustainable Growth*, *3*(1), 47-80.

Samitas, A., Polyzos, S., & Siriopoulos, C. (2018). Brexit and financial stability: An agent-based simulation. Economic Modelling, 69, 181-192.

Solow, R. M. (2007). The last 50 years in growth theory and the next 10. *Oxford review of economic policy*, *23*(1), 3-14.

Sporta, F. O. (2018). Effect of financial distress factors on performance of commercial banks in Kenya (Doctoral dissertation, JKUAT).

Tamanaha, B. Z. (2015). The knowledge and policy limits of new institutional economics on development. *Journal of Economic Issues*, *49*(1), 89-109.

Trad, N., Rachdi, H., Hakimi, A., & Guesmi, K. (2017). Banking stability in the MENA region during the global financial crisis and the European sovereign debt debacle. *The Journal of Risk Finance*, *18*(4), 381-397.

Ugwu, C. I., Ekere, J. N., & Onoh, C. (2021). Research paradigms and methodological choices in the research process. *Journal of Applied Information Science and Technology*, *14*(2), 116-124.

Wolf (2014) provides a survey of the issues in the book's preface, introduction, and conclusion (for a video interview, seehttp://video.ft.com/3765028307001/Martin-Wolf-lessons-from-the-crisis/World).

APPENDICES

Appendix I: Ethical Approval

Strathmore UNIVERSITY

30th May 2024

Mr Nyobii Shadrack,
shadrack.kipkorir@strathmore.edu

Dear Mr Nyobii,

RE: An Evaluation of the Impact of Foreign Direct Investment External Debt Stock and Merchandise Trade on Bank Stability in Kenya

This is to inform you that SU-ISERC has reviewed and **approved** your above **SU-masters** proposal. Your application reference number is **SU-ISERC2256/24.** The approval period is from **30th May 2024 to 29th May 2025.**
This approval is subject to compliance with the following requirements:

i. Only approved documents including (informed consents, study instruments, MTA) will be used.
ii. All changes including (amendments, deviations, and violations) are submitted for review and approval by SU-ISERC.
iii. Death and life-threatening problems and serious adverse events or unexpected adverse events whether related or unrelated to the study must be reported to SU-ISERC within 72 hours of notification.
iv. Any changes anticipated or otherwise that may increase the risks or affected safety or welfare of study participants and others or affect the integrity of the research must be reported to SU-ISERC within 72 hours.
v. Clearance for the export of biological specimens must be obtained from relevant institutions.
vi. Submission of a request for renewal of approval at least 60 days prior to the expiry of the approval period. Attach a comprehensive progress report to support the renewal.
vii. Submission of an executive summary report within 90 days of completion of the study to SU-ISERC.

Before commencing your study, you will be expected to obtain a research license from National Commission for Science, Technology, and Innovation (NACOSTI) https://research-portal.nacosti.go.ke/ and obtain other clearances needed.

Yours sincerely,

Mr Ambrose Rachier,
Chairperson; SU-ISERC

Ole Sangale Rd, Madaraka Estate. PO Box 59857-00200, Nairobi, Kenya. Tel +254 (0)703 034000
Email admissions@strathmore.edu www.strathmore.edu

Appendix II: NACOSTI Approval

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION

Ref No: 530219

Date of Issue: 05/June/2024

RESEARCH LICENSE

This is to Certify that Mr.. Shadrack Kipkorir Nyobii of Strathmore University, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Nairobi on the topic: An Evaluation of the Impact of Foreign Direct Investment, External Debt Stock and Merchandise Trade on Bank Stability in Kenya for the period ending : 05/June/2025.

License No: NACOSTI/P/24/36646

530219

Applicant Identification Number

Director General
NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Verification QR Code

NOTE: This is a computer generated License. To verify the authenticity of this document, Scan the QR Code using QR scanner application.

See overleaf for conditions