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Impact of Real Effective Exchange Rate on Equity Financing of Zambian Companies Listed on Lusaka Securities Exchange (2020-2024)

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Abstract

This study examines the impact of real effective exchange rate (REER) fluctuations on equity financing for Zambian companies listed on the Lusaka Securities Exchange (LuSE). Employing a mixed-methods approach, the research combines the quantitative analysis of macroeconomic variables with the qualitative insights of financial professionals. Quantitative data, including descriptive statistics, unit route tests, and econometric models, are used to model the relationship between REER, inflation, liquidity, and stock market performance. The qualitative data, collected through surveys, explore the impact of REER, operational strategies, sector-specific weaknesses, institutional factors, and perceptions about the impact of Foreign Direct Investment (FDI). Triangulation strategies improve the analysis by comparing quantitative results with qualitative responses to validate the findings. Methodological triangulation integrates time series analysis with survey research, while analytic triangulation or investor triangulation is strategy used to ensure that the findings are objective and are not skewed by personal perspective of a single individual to reduce bias. The study addresses potential limitations, such as respondent bias and sample size, by comparing responses in professional roles and experience levels, supplementing survey data with objective financial data, and conducting sector-specific case studies. The results highlight the importance of REER fluctuations, as recognised by financial professionals, with implications for Zambia's economy and listed companies. The research emphasises the need for effective exchange rate management, macroeconomic stability and a supportive institutional framework to build investor confidence and promote equity financing in Zambia. The policy recommendations include introduction of a flexible exchange rate regime, increasing transparency in monetary policies and streamlining regulatory processes. This study provides information to policymakers, investors, and business decision-makers to improve the resilience and growth of the equity market in Zambia.

Key Words: Real effective exchange rate, liquid asset ratio, equity, financing, LuSE all share index

1. Introduction

The Real Effective Exchange Rate (REER) is a determining factor in Zambia's economic outlook, particularly in equity financing for companies listed on the Lusaka Securities Exchange (LuSE). REER, which adjusts the value of the Zambian Kwacha (ZMW) against a basket of foreign currencies considering

inflation, plays a key role in shaping the country's competitiveness and attractiveness of foreign investors. The increasing focus of policymakers and economists on REER is due to its substantial impact on economic performance. As Koirala (An Analysis of the Impact of Real Effective Exchange Rate on Economic Growth of Nepal Lecturer, Nepal Commerce Campu, 2018) emphasizes in "An Analysis of the Impact of Real Effective Exchange Rate on Nepal's Economic Development", there are two main factors driving this approach: export-led growth and liberalisation of capital accounts. Stable and competitive exchange rates have been crucial to the success of industrialization in countries such as Japan. In addition, capital account liberalization and the rapid movement of international capital in developing countries have increased the impact of exchange rate fluctuations on economic activity, including capital investment in Zambia.

The past few years have presented significant challenges for Zambia's economy, with REER indicating the depreciation of ZMW against major foreign currencies. This depreciation is driven by factors such as low foreign exchange reserves, declining export performance, and an increase in imports in proportion to population growth. Traditional sources of foreign exchange earnings such as mining and tourism have also suffered setbacks. In response, Zambia's policymakers have implemented a variety of measures to maintain investors' confidence in the national currency. These measures include rigorous monitoring of exchange rate movements and periodic adjustment of parity. However, instead of making sudden decisions to devalue or revaluate, it is important to exercise caution to avoid speculative activities that can increase the volatility of the exchange rate (International Growth Centre, 2014).

The impact of REER on equity financing for Zambia listed companies is multifaceted. The depreciation of ZMW could make Zambian stocks more attractive to foreign investors due to the potential currency advantage. However, long-term depreciation can lead to higher inflation, which can lower the real return on equity investments. Conversely, ZMW's appreciation may make Zambian equities less attractive to foreign investors, but it may reduce the cost of imported inputs for domestic firms, improving their profitability.

For companies looking to raise capital through stock markets, a stable REER is essential. Constant fluctuations, especially those that result in the continued depreciation of the local currency, as seen between late 2023 and 2024, can create uncertainty and undermine investor confidence. Volatility in exchange rates can deter domestic and foreign investors from putting capital to Zambian equities, limiting opportunities for companies to obtain equity financing (Danladi & Uba, 2016). The decline in the exchange rate has increased Zambia's debt burden, depleted foreign exchange reserves, hampered local production, thwarted government industrial development initiatives, and increased the cost of living. Zambia's struggle to overcome its existing economic problems is largely attributed to the depreciation of the exchange rate. The government's decision to redefine the currency using a 1000:1 ratio and maintain a stable value against the US dollar until 2014 resulted in a slowdown in the economy and a 42 percent decrease in copper demand for 2015 (Akpan & Atan, 2012).

1.1 Background

Equity financing plays an important role in supporting economic growth and trade expansion, especially in developing countries, where access to traditional debt financing is often limited (Demirguc-Kunt, Klapper, & Singer, 2013). In Zambia, the dynamics of equity financing are influenced by macroeconomic

factors, with REER being an important determining factor. The International Growth Centre (2024) highlights that fluctuations in the REER can affect investment decisions and the overall economic environment, affecting how companies access equity financing from Zambian listed companies. REER refers to the competitiveness of a country's relative prices of goods and services relative to its trading partners adjusted for inflation (Edwards & Savastano, 1999). Understanding how fluctuations in REER affect equity funding is important for policymakers and investors alike, as it affects capital flows, investor confidence, and the overall financial stability of the economy (Klein & Shambaugh, 2015).

In Zambia, the economic outlook is characterized by a heavy reliance on exports, especially copper, which makes the country susceptible to external shocks (World Bank, 2021). Fluctuations in world commodity prices and exchange rates have a profound impact on Zambia's kwacha and, in turn, affect the REER. These fluctuations affect investor behaviour and companies' ability to obtain equity financing, which is essential to their growth and stability (Mulenga M. , 2017). Despite the importance of this relationship, there is very little empirical research exploring the direct link between REER and equity financing of Zambian listed companies, creating gaps in understanding how macroeconomic factors shape the equity financing environment.

In addition, Zambia's financial sector is still developing and access to equity financing is limited compared to more developed economies (African Development Bank, 2020). This barrier is compounded by macroeconomic instability, including exchange rate volatility, inflation, and interest rate fluctuations (Bank of Zambia, 2022). As a result, firms, especially small and medium-sized enterprises (SMEs), face significant challenges in accessing the capital needed for expansion and innovation (Kabwe, 2019). Therefore, the interaction between REER and equity financing is not only a macroeconomic issue, but also an important factor in determining the competitiveness and growth potential of individual firms and industries in Zambia. Understanding these dynamics is essential to creating an environment that supports sustainable economic growth and development (Asiedu, 2006).

1.2 Statement of the Problem

Despite the Bank of Zambia's implementation of tight monetary policies aimed at stabilizing the Zambian Kwacha (ZMW) against major global currencies, the secondary consequences of these interventions on the equity financing landscape remain uncertain. Although traditional macroeconomic research has largely explored the relationship between exchange rates and the trade balance or GDP growth (e.g., Kuntsula, 2020), there is a significant empirical gap on how fluctuations in the Real Effective Exchange Rate (REER) directly affect the capital-raising capacity of companies listed on the Lusaka Stock Exchange (LUSE).

The problem is underscored by the inherent tension between currency stabilization and market attractiveness. On the one hand, the persistent volatility of the REER increases risk premiums and uncertainty, which may deter both domestic and foreign investors from capitalizing on Zambian equities. On the other hand, while ZMW's depreciation could theoretically make Zambian equities more affordable for foreign investors, the resulting inflationary pressures could reduce real yields, complicating the long-term cost of capital for listed entities.

In addition, the existing literature (e.g., Mwewa, 2020; Kabwe, 2019) focuses primarily on macroeconomic stability rather than on the micro-mechanisms of equity financing, whereby the specific roles of market liquidity (liquid asset ratios) and inflation are largely unregulated in the Zambian context. As a result, the extent to which these variables reduce or amplify the REER's impact on the LuSE All Stocks Index (LASI), a crucial indicator of the health of the equity market, remains unknown.

This study attempts to bridge this macro-micro gap by empirically examining whether fluctuations in REERs, coupled with domestic liquidity and inflationary pressures, significantly determine Zambian firms' ability to obtain equity financing.

1.3 Objective of the Study

The purpose of this study was to examine the direct impact of the real effective exchange rate on equity financing for companies in Zambia. In particular, the study examined how the fluctuations of REER affected investor confidence, the cost of capital, and the operational viability of companies in various sectors. This research sought to determine whether REER significantly affected the ability of companies in Zambia to attract capital investment and how exchange rate changes have affected the equity financing landscape.

The purpose of the study was directly related to the title "Impact of Real Effective Exchange Rate on Equity Financing of Zambian Companies Listed on LuSE". By focusing on the direct relationship between REER and equity financing, the study aimed to shed light on how exchange rate dynamics affected the ability of Zambia's public enterprises to secure capital investments. This research provided valuable insights into the specific outcomes of a strong or weak kwacha on investment and business development, addressing a key gap in understanding the impact of REER on equity financing for Zambian companies listed on LuSE.

1.4 General Purpose of Study

The overall objective of this study was to analyse the impact of the real effective exchange rate on the equity financing of Zambian companies listed on LuSE.

1.5 Research Hypothesis

i. H_0: There is no statistically significant correlation between the REER and LuSE All Share Index.
   H_1: There is a statistically significant correlation between the REER and LuSE All Share Index.
ii. H_0: There is no statistically significant correlation between inflation and the LuSE All Share Index.
   H_1: There is a statistically significant correlation between inflation and the LuSE All Share Index.
iii. H_0: There is no statistically significant correlation between the Liquid Asset Ratio and the LuSE All Share Index.
   H_1: There is a statistically significant relationship between the liquid asset ratio and the LuSE All Share Index.

1.6 Research Questions

This research addresses the following important questions:

i. To what extent are fluctuations in the REER correlated with changes in investor confidence, according to the LuSE All Stocks Index (LASI)?
ii. How do inflationary pressures affect the attractiveness and viability of equity financing for listed companies?
iii. What is the functional impact of the banking sector's Liquid Asset Ratio (LAR) on the overall equity financing environment?

By clarifying these dynamics, the study aims to provide a data-driven framework for policymakers and corporate strategists to foster a more resilient and competitive investment environment in Zambia

1.6.1 Specific Objectives of Study

i. Examine the relationship between the Real Effective Exchange Rate (REER) and investors' confidence in Zambia's stock market, as measured by the LuSE All Share Index (LASI);
ii. Examine the relationship between inflation and investor confidence in the Zambian stock market, as reflected in the LASI;
iii. To analyse the relationship between liquid asset ratios (LAR) and investors' confidence in the Zambian stock market, as measured by the LASI.

1.7 Significance of the Study

This study is important to many stakeholders in Zambia and other similar developing economies. This research equips policymakers with empirical evidence on the impact of real effective exchange rate (REER) fluctuations on equity financing for Zambian-listed companies. By stabilizing the investment climate, policymakers can promote a more attractive environment for equity investment, which is critical for domestic economic stability and growth.

For both local and international investors, it is important to understand the dynamics between REER fluctuations and equity financing. The study provides insights that help investors make more informed decisions, especially in the timing and management of investments in volatile markets. This knowledge aids in risk assessment and management, which is essential for optimizing investment returns in emerging markets such as Zambia.

Companies in the major economic sectors (mining, agriculture, and manufacturing) gain a detailed understanding of how REER volatility especially affects their industries. The study equips corporate strategists and financial executives with the knowledge to adapt their financial strategies to cushion the economic shocks caused by changes in the REER, increase its attractiveness to investors, and raise capital even during periods of volatility.

The emphasis on strong institutional frameworks and the role of regulators in reducing exchange rate volatility highlights the need for strong governance. Regulators and financial institutions can use this knowledge to strengthen frameworks that protect the economy and individual firms from the adverse effects of such volatility.

Beyond Zambia, the findings of this study are relevant to other developing countries facing similar challenges with the volatility of the REER and its impact on equity financing. By comparing Zambia's

situation with that of other economies, the study draws best practices and lessons that can be adapted and applied to improve financial stability and economic growth.

1.8 Scope of the Study

This study focuses on Zambia's trading partners in Zambia's foreign exchange market, with an emphasis on the major currencies in the exchange rate basket. Major currencies considered include the U.S. dollar (widely regarded as the vehicle currency due to its dominant role in international trade and finance), the British pound, the South African rand, the Botswanan pula, the Malawian kwacha, and the Chinese yuan. However, this research mainly focused on the major currencies that significantly affected Zambia's exchange rate dynamics. The aim of the study is to examine the relationship between the real effective exchange rate (REER) and equity financing in Zambia, particularly looking at how REER fluctuations affected the ability of listed companies to raise funds through equities. The research spans a 49-month period from September 2020 to September 2024, providing a comprehensive analysis of trends and dynamics during this time period. The data was collected from the Lusaka Securities Exchange (LuSE), which served as a secondary source of financial and economic information.

A sample of 22 companies listed on the Zambian Stock Exchange was selected for the study. To improve the robustness of the findings, the research also incorporated macroeconomic and financial data from reputed global organizations such as the World Bank and the International Monetary Fund (IMF). This combined dataset provided a detailed context for understanding the macroeconomic factors influencing Zambia's stock market. A mixed-method approach was employed to ensure in-depth analysis. Quantitative data were analysed to identify statistical relationships and trends, while qualitative insights provided deep contextual understanding. By integrating qualitative and quantitative data, the study aimed to provide a nuanced view of the interaction between exchange rate dynamics and equity financing of Zambia listed companies.

The study's limitations included several clearly defined limitations:

i. The analysis only included companies listed on LuSE. This approach ensured a thorough scrutiny of equity financing within the formal capital market.
ii. The study was limited to data covering the period from September 2020 to September 2024. It provided a 49-month perspective on the relationship between REER and equity financing of Zambian-listed companies.
iii. Companies that were not listed on the Zambia Stock Exchange were excluded from the study. This decision was taken to give priority to the presentation of standardized and reliable financial reports available from listed entities.
iv. Data from other unlisted sources or informal markets were not included. This exclusion was necessary to maintain consistency and reliability in the analysis.

This study provided valuable insights into how exchange rate fluctuations affected equity markets in Zambia. The findings contributed to a deeper understanding of the challenges and opportunities for equity financing in the context of Zambia's economic environment, offering practical recommendations for policymakers, investors, and corporate managers.

1.9 Theoretical and Conceptual Framework

Theoretical and conceptual frameworks provide a structured basis for research studies, define key concepts, explain existing theories, and outline relationships between variables, as noted by Adom et al. (2018). In this research, a combination of these frameworks has been employed to guide research on the impact of a real effective exchange rate on equity financing for Zambian companies listed on LuSE.

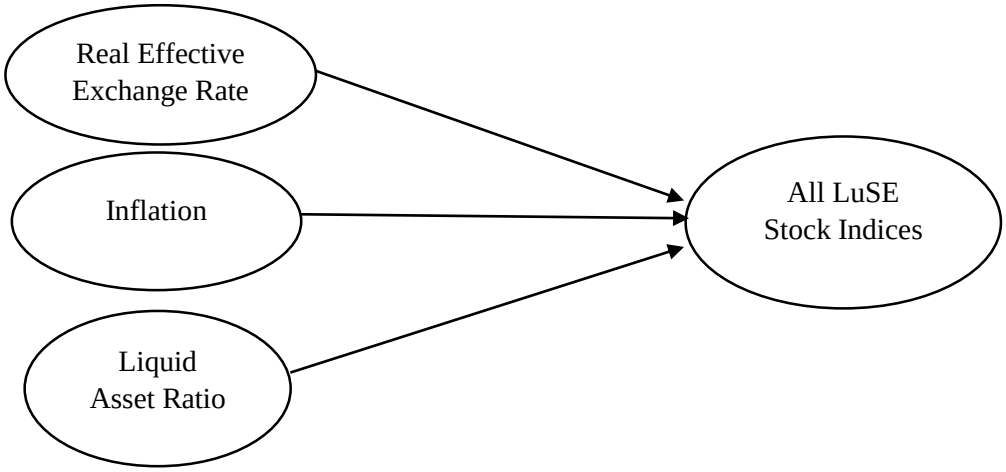
1.9.1 Theoretical Framework

The study is based on established theories and models in the field of finance and economics to provide macroeconomic perspective on exchange rate dynamics. It specifically uses the behavioural equilibrium exchange rate (BEER) approach, which assumes that the exchange rate is determined by macroeconomic fundamentals such as productivity, terms of trade, and fiscal policy (Clark & MacDonald, 1998). This approach is particularly relevant, as it provides a theoretical basis for understanding how changes to REER affect investor confidence, the cost of capital, and the overall attractiveness of equity investments. The BEER model's emphasis on the role of economic fundamentals guides the analysis of how these elements collectively affect the equity financing of Zambian listed companies.

1.9.2 Conceptual Framework

Constructed by the researcher, the conceptual framework indicates the specific objectives and variables of the study. It defines key concepts such as REER, equity financing, investor confidence, and inflation. It also outlines the hypothetical relationships between these variables. For example, it explores how variations in REER affect the cost of capital, which in turn affects the level of equity financing available to businesses. In addition, the conceptual framework considers the moderate effects of inflation, liquid asset ratios, and sector-specific weaknesses. This includes assessing how inflation might reduce or exacerbate the impact of REER's fluctuations on equity funding, and how certain regions may be more vulnerable to these dynamics due to their particular characteristics or the nature of their international risk.

By integrating theoretical and conceptual frameworks, the study provides a comprehensive approach to understanding the implications of REER movements on equity financing of Zambian companies listed on LuSE. The theoretical framework provides a broader economic context, which helps to explain the complex interplay between national economic policies and global financial movements. Rather, the conceptual framework provides a focused examination of specific relationships and variables relevant to the purposes of study.



1.10 Operational Definitions

This section defines the key terms important to understand the research topic:

- ✓ ***Real Effective Exchange Rate (REER):*** REER is an index that measures the value of a country's currency relative to a basket of other major currencies adjusted for inflation differentials. It shows the competitiveness of a nation's goods and services in the global market. It is important to understand REER because fluctuations can significantly affect the cost of capital, investor confidence, and overall capital financing conditions (AbuDalu, Ahmed, Almasaied, & Elgazoli, 2014).
- ✓ ***Equity Financing:*** Equity financing refers to the process of raising capital by selling shares in a company (Schweicker, Thele, & Wienelt, 2006). For this study, the LuSE All Share Index (LASI) is used as a proxy to represent equity financing. LuSE provides a standardized and reliable measure of the overall performance of the equity market, making it a suitable indicator for assessing the impact of REER on equity financing (African Financial, 2024). Equity financing is important for businesses because it provides the capital needed for growth and expansion without debt. Analysing this helps us understand how exchange rate fluctuations affect companies' ability to raise funds.
- ✓ ***Liquid Asset Ratio (LAR):*** The liquid asset ratio measures a company's ability to cover its short-term liabilities with its most liquid assets. It is an indicator of financial stability and liquidity. For this study, the LAR is used as a proxy to represent liquidity. LAR is important for assessing the short-term financial health of a business. Understanding its relationship with REER helps determine how exchange rate fluctuations affect a company's liquidity and financial stability (Brigham & Houston, 2012).
- ✓ ***Inflation of Money:*** Inflation is the rate at which the general price level of goods and services rises, destroying purchasing power. Inflation affects the actual return on investment and the cost of capital. Analysing its impact on equity financing helps to understand how changes in the price level affect investors' decisions and market conditions (Mankiw, 2016).

1.11 Ethical Considerations

This study was conducted with a firm commitment to maintaining high ethical standards. The research received approval from the University of Zambia, which confirms compliance with strict ethical guidelines set by the institution. This initial step was critical to ensure that all research activities were carried out responsibly and in accordance with accepted academic standards. Prior to data collection, informed consent was obtained from all participants. The process involved comprehensively informing participants about the purpose of the study, the procedures involved, their rights as participants and the voluntary nature of their participation. Consent forms were duly signed and collected, which provide evidence of participants' understanding and agreement to participate in the study.

A key aspect of our ethics practice was the rigorous management of participant data to ensure privacy. All personal identifiers were removed from the dataset prior to analysis and the data was stored securely to prevent unauthorized access. Throughout the study, and in all resulting reports, participant information has been completely anonymized to protect privacy. These ethical practices were not only planned, but implemented in their entirety, as described in the research proposal. Ethics clearances provided a framework within which research was conducted, ensuring compliance with both institutional and

comprehensive ethical standards. The process of obtaining informed consent was carefully documented, providing clear evidence of ethical compliance. Further, the measures taken to ensure the confidentiality of the data were strictly implemented throughout the investigation process, from the data collection to the final stage of analysis and reporting. These steps highlight the study's commitment to ethical research, ensuring that the findings are not only robust, but respect the dignity and privacy of all participants. This ethical rigor has improved the credibility and reliability of research results.

1.12 Organization of the Study

This thesis is organized into five chapters. In the first chapter, the dissertation introduces the topic by providing a background that describes the relevance and context of the study. It delves into an explicit problem statement that identifies the specific problems or gaps that the research aimed to address. The objectives and questions of the research are presented below, which introduces a roadmap for the research. This section also discusses the importance of the study, explaining its potential impact and usefulness for various stakeholders. Finally, it describes the scope and boundaries, sets boundaries and acknowledges the boundaries of research. The second chapter presents a comprehensive review of the existing literature on real effective exchange rates (REER) and equity financing, focusing on a variety of scales, including global, regional, and local perspectives. This review systematically identifies gaps in current research, which was cited by Chelwa in 2018. It critically evaluates previous findings and theories, setting the stage for current studies where further exploration is needed.

The methodology chapter describes the research design and methods used in the study. It describes the study area and population, provides details on how subjects or data sources are selected through specific sampling techniques. This section also explains the data collection tools used and the reasons behind their selection. Data analysis processes are detailed, as recommended by Cresswell in 2014, ensuring that readers understand how the data will be processed and interpreted. In the fourth chapter, the thesis presents the findings of quantitative and qualitative analysis. It details the statistical techniques used to analyse the data, followed by the presentation of results exploring the relationship between REER and equity financing of Zambian listed companies, referencing Ndulo's findings from 2013. This section integrates qualitative information to provide a deeper understanding of quantitative results, discusses the implications and overall trends observed in the data.

In the last chapter, the implications of the conclusions are discussed, conclusions are drawn on the basis of the data presented in the previous chapter. It provides practical recommendations for policymakers and investors, who are willing to address specific nuances and needs identified through research. The chapter concludes by proposing areas for future research, suggesting new directions based on the limitations and findings of the current study, as suggested by Roderick in 2008.

2. LITERATURE REVIEW

The existing literature on the impact of REER on the equity financing of Zambian companies listed on LuSE is relatively sparse, highlighting an important area for further research. REER is an important economic indicator that measures the relative price of a country's goods and services compared to its trading partners, adjusted for inflation. This measure plays an important role in understanding international competitiveness and can influence various economic activities, including investment decisions. Capital financing is essential for business expansion and economic growth, as it provides the capital needed to innovate businesses, increase operations, and improve productivity. However, fluctuations in the real effective exchange rate can significantly affect equity financing by changing investors' perception and influencing the cost of capital. For example, the depreciation of REER can make domestic goods cheaper for foreign buyers, which can boost exports and attract investment. Conversely, the appreciation of REER can discourage exports, reduce the revenues of companies and affect their ability to obtain equity financing from Zambian listed companies. The purpose of this review was to synthesize the available literature on the relationship between REER fluctuations and equity financing of Zambian-listed companies.

2.1 Impact of REER Stability on Investment and Equity Financing

The impact of the Real Effective Exchange Rate (REER) on economic performance and capital financing is well documented, highlighting the important role of exchange rate stability in boosting investor confidence and economic stability. Blanchard (2004) in "Rethinking Macroeconomic Policy," discusses how stable exchange rates are integral to central banks' objectives, particularly in small, open economies, suggesting that such stability is necessary to maintain strong economic performance and attract investment. Their findings argue that central banks prioritize exchange rate stability to promote an enabling investment climate. Furthermore, in "Financial Reform and Economic Growth" Roubini and Sala-à-Martin (1995) discuss how exchange rate volatility can deter equity investments in emerging markets by increasing risk perceptions among investors, thereby reducing capital inflows.

Several studies have explored the relationship between real effective exchange rate (REER) volatility and equity financing, highlighting the impact of exchange rate stability on investment environments in different economies. Ghosh and Kanjilal (2016) in their study "Exchange Rate Volatility and its Impact on Equity Financing in India", used the econometric model to assess how fluctuations in the REER affect equity investment in the Indian market. By focusing on company-level data, they examined the relationship between changes in REER and investor uncertainty. Their findings showed that fluctuations in the REER increased investors' uncertainty, making equity investing more difficult. This underscores the importance of exchange rate stability in creating an enabling environment for equity financing of Zambia-listed companies. Similarly, Pereira and da Silva (2016) used panel data analysis to examine the impact of exchange rate volatility on foreign direct investment and equity financing in Brazil. They found that higher exchange rate volatility increased risk premiums for investors, increased the cost of equity capital and reduced the attractiveness of investments. The study highlighted the importance of Brazil's macroprudential policies in stabilizing the exchange rate to mitigate these negative effects.

The impact of real effective exchange rate (REER) volatility on investor behaviour and equity financing is an important issue, particularly illustrated by the situation in Argentina. The study by Díaz and Vázquez

(2020) provides insight into this issue, focusing on the effects of a significant currency depreciation on the dynamics of capital flows and investments in Argentina. Employing an econometric analysis, the research explored how currency depreciation affected capital flight, increased the cost of capital, and led to a sharp decrease in foreign direct investment (FDI). The results highlighted that during a period of significant depreciation, Argentina experienced a remarkable capital flight, with increased capital costs and reduced FDI flows. These economic changes were exacerbated by challenges such as external debt pressures and political instability, despite government efforts to manage REER instability and strengthen macroeconomic fundamentals.

On the other hand, Feng and Miller (2019), in "Managing REER Volatility: A Study of China's Approach," analysed how China's capital control measures and managed exchange rate policies have contributed to stabilizing the REER. Their qualitative analysis focused on the effectiveness of these policies in supporting the development of China's stock markets. The study concluded that the active management of China's REER has not only maintained a stable and competitive exchange rate, but also successfully attracted domestic and international capital investment. This demonstrates that effective exchange rate management can significantly boost equity financing in developing economies, serving as an important strategy for economic growth and investment attractiveness.

Roger et al. (2020) examined the impact of investor sentiments on nominal exchange rate dynamics in Zambia from January 2013 to December 2019. Using the Vector Error Correction Model (VECM), the study provides a nuanced analysis of the relationship between investor sentiment and exchange rate movements. The methodology, VECM, is particularly effective in capturing short- and long-term dynamics between variables. This model helps to understand how long-term equilibrium deviations are corrected over time, providing insight into the lingering effects of investor sentiment on exchange rates. The results reveal a significant long-term relationship between investor sentiments and exchange rate movements. In the short term, investor confidence had a significant impact on the nominal exchange rate, triggering volatility that could affect the financing of Zambian listed companies. Such volatility can cause fluctuations in investor confidence, which in turn can affect investment decisions and capital flows, thus affecting the availability and cost of equity financing for Zambia listed companies.

Based on these results, the authors recommended that policymakers pay more attention to investor sentiment as an important factor in exchange rate dynamics. By understanding and addressing these sentiments, policymakers can mitigate the adverse effects on equity financing during periods of exchange rate volatility. This could include strategies such as transparent communication, confidence-building measures, and interventions aimed at stabilizing market expectations. However, the study does not clearly indicate the direct impact of Real Effective Exchange Rate (REER) on equity financing which indicates knowledge gap.

Another study by Shipanga and Kadhila (2022) examined the effects of exchange rate fluctuations on the financial performance of Namibia's manufacturing sector. The researchers used time series analysis and econometric models to examine the relationship between exchange rate fluctuations and regional performance. Its findings indicated that exchange rate volatility negatively affects financial performance, highlighting the need for effective exchange rate management to support equity financing for Zambia listed companies.

Akpan and Atan (2012) in their study on "Exchange Rate Fluctuations and Economic Growth in Nigeria" have used a Granger causal test and a co-integration analysis to explore the effects of REER fluctuations on economic growth. Their research points to the significant effects of exchange rate volatility on economic growth, which in turn affects equity financing, highlighting the unilateral causality between REER and real GDP growth. This underscores the need for stable exchange rates to attract equity investors.

Gatova and Mvithiga's (2014) study provides a critical review of the existing literature on the relationship between private capital (PE) and economic growth. Through a synthesis of several studies, the authors provide a broad overview of the role that PE can play in promoting economic growth. The methodology employed in this study is a literature review, which allows for an in-depth review of previous research on the topic. This approach is particularly effective in identifying common themes, trends, and gaps within the existing body of knowledge. The study's findings underscore the significant potential of private capital to drive economic growth, particularly through investment in SMEs and innovative companies. By injecting capital into these sectors, private capital can stimulate entrepreneurial activities, improve productivity and create employment opportunities, ultimately contributing to economic growth. Based on their analysis, Gatova and Mvithiga recommended the implementation of policies that support private equity investment in developing economies. These policies may include regulatory reforms, incentives for private equity firms, and initiatives to improve the investment climate. Such measures will create a more favourable environment for private capital, allowing it to realize its full potential to promote economic growth. However, a notable knowledge gap in this study is the absence of discovery of the specific impact of real effective exchange rate (REER) fluctuations on private equity and equity financing of Zambian-listed companies. Understanding how REER affects equity financing is critical to comprehensively addressing the challenges and opportunities associated with private equity investing.

The findings from these countries emphasize the critical need for policies that stabilize the REER to improve investor confidence and effectively attract equity financing. These measures are necessary not only to improve the investment climate, but also to promote economic stability and growth in regions affected by REER volatility.

2.2 Regional Studies and Comparative Analyses of REER Effects

The study by the Bank of Zambia (2020) research team examines the average reversal of the Real Effective Exchange Rate (REER) in Zambia using an Autoregressive Exponential Smooth Transition (ESTAR) model to analyse non-linear adjustments during floating exchange rate periods. This sophisticated methodology allows to identify non-linear dynamics, which is important for understanding how deviations from the equilibrium REER are corrected over time. The study finds evidence of nonlinear adjustments in REER, suggesting that deviations from equilibrium are not always corrected in a linear fashion. This non-linearity means that the REER can exhibit different adjustment speeds depending on the magnitude of the deviation. This non-linear behaviour can complicate investment decisions and equity financing, as the unpredictability of exchange rate adjustments introduces additional uncertainty for investors. This uncertainty can deter investing, as investors may be wary of potential losses due to unpredictable exchange rate movements.

Kabwe's (2019) study provides an in-depth analysis of the effects of private equity financing on Zambian small and medium-sized enterprises (SMEs), with a particular focus on market development, innovation, and expansion. By adopting a blended methods approach, Kabwe combines qualitative case studies of SMEs with quantitative statistical analysis of financial performance indicators. This comprehensive methodology allows for a robust examination of the effects of private equity investments on SMEs. The results of the study show that private equity investment contributes significantly to the growth and innovation of SMEs in Zambia. SMEs that received private equity financing demonstrated a significant improvement in their financial performance, market access, and ability to innovate. These positive effects underscore the potential of private capital to promote the growth and competitiveness of SMEs, which are critical to economic growth and job creation in Zambia.

Kabwe's (2020) study examines the relationship between private equity investment and job creation in Zambia, employing a mixed-methods approach that combines quantitative analysis of employment data and qualitative interviews with business leaders. This broad methodology allows for a granular understanding of how private equity investments affect job creation, particularly within small and medium-sized enterprises (SMEs). The results show that private equity investment leads to significant job creation, highlighting the potential of private capital to support economic growth and reduce unemployment in Zambia. The study shows that SMEs in particular benefit from increased employment opportunities as a result of private equity financing. These positive outcomes underscore the important role of private capital in promoting economic growth and improving livelihoods.

However, while the results are promising, they require further validation in different areas and time periods to ensure their normality and robustness. The impact of private equity investment on employment can vary considerably from sector to sector, with sector-specific studies needed to capture these differences. In addition, examining the long-term effects of private equity investments on employment will provide a thorough understanding of their sustainability and overall impact. Kabwe's study makes a significant contribution to the literature by highlighting the job creation potential of private equity investment in Zambia. Future research should build on these findings by conducting large-scale studies with diverse sectoral representations and using longitudinal data to capture the temporal dynamics of job creation. Such research will provide valuable insights for policymakers and investors who want to maximise the socio-economic benefits of private equity financing from Zambian listed companies.

While Kabwe's study highlights the beneficial outcomes of private equity investments, it can be strengthened by a more detailed analysis of the potential negative consequences or risks associated with private equity financing of Zambian-listed companies. For example, the study can explore issues such as reducing the ownership of SME founders, the possibility of increasing financial leverage and associated risks, and the pressure to obtain short-term financial returns, which can sometimes conflict with long-term business objectives. To build on Kabwe's findings, more research is needed to comprehensively examine the positive and negative effects of private equity financing on SMEs. Future studies may include larger and more diverse samples, as well as employing more sophisticated analytical techniques to provide a balanced and granular understanding of how private capital influences SME growth in Zambia. Such research will be invaluable to policymakers, investors, and entrepreneurs seeking to maximize the benefits of private capital and minimize potential risks.

Mwewa (2020) conducted a major quantitative analysis to examine the relationship between exchange rate stability and stock market developments in Kenya, specifically by analysing data from the Nairobi Stock Exchange (NSE) over a decade. Using regression analysis techniques, Mwewa found a significant positive correlation between stable exchange rates and increased investor confidence, which led to higher trading volumes and higher market capitalization at the NSE. This study underscores the importance of exchange rate stability in fostering a conducive environment for stock market expansion. Mwewa's recommendations emphasised the need for the Kenyan government to continue to take policy measures aimed at further boosting investor confidence and stabilizing the Real Effective Exchange Rate (REER) to promote sustained growth in the stock market.

Chansa's (2019) study of exchange rate misalignment in Zambia provides a comprehensive examination of the equilibrium exchange rate using the Behavioural Equilibrium Exchange Rate (BEER) approach. This approach was used to estimate the equilibrium exchange rate for Zambia from the first quarter of 2004 to the second quarter of 2017, taking into account determinants such as net foreign assets, productivity differential and interest rate differentials. By incorporating these factors, the study aimed to provide a robust estimate of the equilibrium exchange rate and identify any misalignments. The study used the BEER approach to assess the equilibrium exchange rate, analysing key economic indicators including net foreign assets, productivity gaps and interest rate differentials. The results revealed a significant mismatch of Zambia's exchange rate during the study period, with an average overvaluation of 1.574 percent. This overvaluation suggests that the real exchange rate was higher than the equilibrium rate, indicating that the Zambian Kwacha was stronger than it should have been based on economic fundamentals. This mismatch can have an adverse effect on investors' confidence, as it introduces uncertainty and potential risks associated with currency fluctuations. This, in turn, can have a negative impact on equity financing, as investors may be reluctant to put capital into an environment where exchange rate volatility is perceived.

In light of these findings, Chansa recommends that the authorities prioritize stabilizing the Real Effective Exchange Rate (REER) in order to create a more favorable investment environment. By aligning the exchange rate with its equilibrium level, the authorities can reduce uncertainty and increase investor confidence, thereby boosting equity financing for Zambian-listed companies. This recommendation underscores the importance of sound exchange rate management in promoting economic stability and attracting investment. While the study provides valuable insight into the exchange rate mismatch and its potential implications for investor confidence, it does not explicitly address REER's direct impact on equity financing for Zambian companies listed on LuSE. This study explores the relationship that provides a more complete understanding of how exchange rate dynamics affect investment decisions and outcomes in Zambia.

Chanda and Sikombe's (2022) study highlights the limitations and untapped potential of the private equity (PE) sector in Zambia, examining the factors that limit its contribution to economic growth. Employing a qualitative research approach, the study collects information from local and international private equity fund managers through open questionnaires. The results show that despite significant investment opportunities in sectors such as tourism, agriculture, health, manufacturing and retail, Zambia's EP industry remains underdeveloped. It is responsible for several major challenges: an immature regulatory

framework, an underdeveloped private equity culture, currency risk, limited investment opportunities, and difficulties in exiting investments. These challenges collectively hinder the growth and effectiveness of the EP sector in contributing to the economic development of the country. To address these issues, the study recommends the development of a more mature regulatory framework and improving the culture of private equity. These recommendations are aimed at creating a more favourable environment for private equity investment, which, in turn, can stimulate economic growth. However, a major difference in this study is the lack of a clear idea of the direct impact of real effective exchange rate (REER) fluctuations on the equity financing of Zambian companies listed on LuSE. Understanding how REER affects equity financing is critical to comprehensively addressing barriers to investment and devising strategies that reduce currency risk and increase the attractiveness of the Zambian market for private equity investors.

Similar challenges are evident in Zambia, where the volatility of the REER has had a significant impact on the business and investment environment. Mulenga's (2017) study delves into the key factors affecting the private equity financing of Zambia-listed companies, shedding light on macroeconomic and company-specific determinants. Employing a mixed-methods approach, the study combines qualitative interviews with industry stakeholders and quantitative analysis of financial data from Zambian companies. This methodological combination allows for an in-depth exploration of the various elements affecting the private equity financing of Zambian listed companies. The findings highlight significant barriers to accessing private capital, with regulatory barriers and low financial literacy emerging as the main barriers. Regulatory challenges can include cumbersome processes, unclear policies, and bureaucratic inefficiencies that deter potential investors. Meanwhile, poor financial literacy among business owners and managers can hamper their ability to interact effectively with private equity markets and understand the complexities of financing options.

2.3 Exchange Rate Policies and Economic Development

Alper and Saglam (2019) explored the impact of REER volatility on foreign portfolio investment in Turkey using regression analysis. He said that high volatility due to increased risk perception among investors largely prevented foreign investment. In response, the Turkish authorities have put in place strategies such as managing foreign exchange reserves and stabilizing inflation to mitigate these effects and provide some relief to the stock market. Calderón and Sánchez (2018) used econometric models to study how fluctuations in the REER affect export-dependent sectors in Mexico. Their findings indicated that the depreciation of the Mexican peso increases costs for companies that rely on imported inputs, reducing profitability and attractiveness for equity investors. The Mexican government's targeted monetary policies to stabilize REER have been key in mitigating these negative effects.

The key relationship between REER sustainability and equity financing has been highlighted through various international studies, which emphasize the need for specific economic policies to promote an investment-friendly environment. Park and Song (2017) analysed the South Korean market through econometric analysis of time series data, examining how the stability of REER affects investor behaviour and market conditions. Its findings highlight the importance of REER sustainability in boosting investor confidence and improving equity financing for Zambia-listed companies. South Korea's effective use of fiscal and monetary policies, including foreign exchange intervention and regulatory reforms, has been beneficial to its equity markets.

These case studies from South Korea, Turkey, Indonesia and Mexico illustrate the essential role of REER sustainability in creating an enabling environment for equity financing of Zambian-listed companies. Each country's proactive approach, from fiscal measures to regulatory reforms, demonstrating how targeted policies can boost investor confidence and encourage capital financing, offers valuable lessons for policymaking in equitable economic contexts.

Kombe (2004), who studied the determinants of the Real Effective Exchange Rate (REER) in Zambia, provides important insight into the mechanisms that influence exchange rate fluctuations and their macroeconomic impacts. This research is important for policymakers and economists seeking to understand and navigate the complexities of Zambia's economic landscape. Kombe used sophisticated econometric models to dissect the factors affecting REER. In particular, the study includes vector autoregression (VAR) and co-integration techniques. These methods are particularly suitable for capturing dynamic interrelationships between multiple time series data, allowing for an in-depth analysis of how various economic indicators and external factors contribute to changes in REER.

Similarly, Kuntashula (2020) examined the effects of exchange rate changes on Zambia's balance of trade, providing valuable insights into the macroeconomic effects of exchange rate fluctuations. Using annual time series data and using Johansson co-integration tests and error-correction models, the study analyses the long-term and short-term effects of exchange rate changes on the trade balance. The results show that the depreciation of the Zambian kwacha improves the trade balance in the long run, although the short-term effects are inconsistent. This suggests that exchange rate depreciation can boost exports and reduce imports over time, but the immediate impact may vary depending on other economic factors. The study recommends effective exchange rate management as an important strategy to improve Zambia's trade balance and support economic stability. However, like the Funyina study, it does not specifically address the impact of REER on equity financing, pointing to the need for more research. Understanding the interaction between REER fluctuations and equity financing will provide deeper insight into the mechanisms through which exchange rate dynamics influence investment decisions and economic outcomes in Zambia. Future studies should focus on filling this gap to inform policy decisions aimed at improving the investment climate and promoting sustainable economic growth.

With these findings in mind, the authors recommend that further empirical estimates be made of transaction costs related to deviations from REER. Understanding these costs is essential to developing strategies that mitigate the adverse effects of exchange rate volatility on the equity financing of Zambian companies listed on LuSE. By quantifying the transaction costs associated with the REER adjustment, authorities can better assess the risks faced by investors and design measures to improve the sustainability of the investment climate. While the study provides valuable insight into the non-linear behaviour of REER adjustments, it does not explicitly address the direct impact of REER on equity financing for Zambian companies listed on LuSE. This represents a remarkable knowledge gap. Future research should aim to explore this relationship in more detail, revealing how fluctuations in REER affect equity financing and the macroeconomic environment in Zambia by providing a more complete understanding of how REER flukes affect equity financing.

Despite providing a valuable fundamental understanding of the private equity market in Zambia, the study has limitations. It lacks a comprehensive empirical analysis, which can provide strong evidence to support

the findings. In addition, the small sample sizes used in the study can limit the generality of the results, making it difficult to implement the findings across the industry. Mulenga's study highlights the need for larger-scale studies and the use of more robust statistical methods to validate these findings. Future research should aim to incorporate sophisticated analytical techniques, as well as larger and more diverse samples, in order to better understand the complex dynamics of private equity financing of Zambian-listed companies. Such research can provide more concrete information and inform policy decisions aimed at improving the investment climate and promoting economic growth.

Mwewa's (2020) study examined the contribution of private equity financing to economic development in Zambia, employing multiple economic indicators to provide a comprehensive analysis. Using econometric models and time-series data analysis, the study provides strong empirical evidence of the positive and statistically significant impact of private capital on economic growth. The methodology includes a detailed econometric model, which allows to quantify the precise quantification of the relationship between private equity investments and economic growth. By analysing time series data, the study captures long-term trends and patterns, providing a clearer picture of how private equity financing affects economic performance. The results showed that private equity investment positively impacts economic growth, underscoring its potential as a catalyst for economic growth. This positive impact is likely to be due to the role of private capital in fostering innovation, improving productivity and supporting the expansion of small and medium-sized enterprises (SMEs), which are critical to economic diversification and job creation.

While the study provides strong empirical evidence, it can be further improved by incorporating qualitative data to gain a deeper understanding of the mechanisms underlying the observed relationship driving. A mixed-methods approach, with a combination of quantitative and qualitative analyses, will provide a more holistic understanding of how private equity financing contributes to economic growth. For example, qualitative interviews with industry stakeholders can reveal insights into strategic decisions and operational improvements facilitated by private equity investments.

2.4 Equity Financing and Private Equity Insights

Research on the impact of the real effective exchange rate (REER) on the equity financing of Zambian companies listed on LuSE is limited, but there are relevant studies that address exchange rate dynamics and their macroeconomic impacts. Claessen's study delves into the multifaceted landscape of private equity (PE) financing in Zambia, carefully exploring its determinants and limitations. By adopting a qualitative methodology, research leverages interviews with fund managers, providing a detailed understanding of the investment climate. The study employed a qualitative approach, mainly through in-depth interviews, which provides a nuanced view of those directly involved in private equity investments in Zambia. This method is particularly effective in capturing the subjective experiences and perceptions of fund managers, which quantitative data alone can ignore. The study shows that private equity investment in Zambia is heavily influenced by two main factors: business attractiveness and the business environment. Business attractiveness includes aspects such as managerial ability, business history, exit strategies, impact capacity, and scalability.

These factors highlight the intrinsic qualities of companies that make them attractive to investors. On the other hand, the business environment is determined by external factors such as political stability, GDP growth, and population growth. These factors create a backdrop that improves or decreases the viability of the investment. Claessen's research emphasizes the need to overcome a number of barriers to scaling up private equity financing for Zambian-listed companies. Key recommendations include developing a more mature private equity culture, expanding investment opportunities, and reducing currency risk. The objective of these suggestions is to create a more conducive environment for private investment, thereby promoting economic growth (Claassen, 2021).

This study does not explicitly address the relationship between real effective exchange rate (REER) fluctuations and equity financing of Zambia-listed companies. This omission points to a significant knowledge gap. Understanding how REER affects equity financing can provide deeper insights into the economic variables that influence investment decisions and outcomes. Future research could benefit from studying this dimension, thus providing a more complete understanding of the factors at play in the Zambian context.

Primus Emanuga's 2019 study addressed the specific effects of equity financing on the performance of banks, particularly under the new regulatory framework. Through a case study approach and financial data analysis, Emenuga highlighted that equity financing has a significant impact on the performance of banks, suggesting that banks should maintain a balanced capital structure to ensure long-term financial stability and compliance with regulatory changes (Emenuga, 2019). On the other hand, Eze, Onyekachi R., Dr. Onwe, Basil U., and Nwanne, Ndubuisi C., in their 2017 study, used secondary data to apply Granger's causal test to examine the relationship between equity financing and economic growth. Their results revealed a bidirectional reason between these two variables, suggesting that economic growth influences not only capital financing, but also this influence on subsequent economic growth. This interdependence underscores the critical role of equity financing in maintaining Nigeria's economic growth and stability (Eze, Onwe, & Nwanne, 2017). The search for Real Effective Exchange Rate (REER) and equity financing in Nigeria has been detailed in a number of important studies, each of which uses different methodologies to understand how these financial mechanisms affect the country's economic structure. In 2021, Akaji Orji, Navadiyar E.O., and Agubata N. conducted a study focused on the impact of debt and equity financing on corporate performance in various sectors in Nigeria. Employing a pre-facto design in conjunction with a Ordinary Least Squares (OLS) regression model, their research showed that a balanced mix of debt and equity financing significantly improves company performance. This finding supports the idea that leveraging a mix of financing options can give companies the flexibility to optimize their capital structure for better financial outcomes (Orji, Nwadialor, & Agubata, 2021).

Sakala and Hapompwe (2023) examined perceptions of small and medium-sized enterprises (SMEs) in Lusaka towards private equity financing compared to traditional debt financing. Researchers employ a qualitative, theory-based approach, allowing for a detailed and nuanced understanding of SME approaches. The results reveal a clear preference for private capital over debt financing, especially under conditions of economic uncertainty, limited availability of collateral, and the need for rapid development and technical assistance. This preference highlights the perceived advantages of private capital, such as not only the provision of capital, but also valuable strategic support and expertise. The qualitative

methodology of the study provides an in-depth insight into the attitudes and motivations of SME owners and managers. However, the reliance on qualitative data limits the generality of the results, as the sample may not be representative of all Zambian SMEs. To address this limitation, future research may include quantitative approaches to validate these assumptions in a larger and more diverse sample. This will involve collecting and analysing numerical data to statistically confirm the trends and preferences identified in the qualitative study.

The inclusion of the mixed-methods approach in future research will provide a more comprehensive and robust understanding of SME funding preferences. By combining qualitative knowledge with quantitative validation, researchers can provide more general conclusions and inform policy decisions that effectively support SME growth and development.

A more recent study on the effects of equity financing on the financial performance of SMEs in Uganda was conducted by Kifanta Sanday in 2024, examining the relationship between equity financing and the financial performance of small and medium-sized enterprises (SMEs) in Uganda using a descriptive survey design and simple random sampling. The results indicated a positive correlation between equity financing and the financial performance of SMEs, indicating that these financing options contribute significantly to improving business performance. Sande suggested that SMEs should consider equity financing as a viable financial strategy to improve their performance (Sanday, 2024). Recent research on the Real Effective Exchange Rate (REER) and its impact on equity financing in Tanzania employed various methodological approaches to explore the dynamic interaction between macroeconomic factors and financial markets.

2.5 Healthcare Financing and Public Debt

Another important 2022 study by Peter Binyaruka and colleagues employed a cross-sectional design with profit event analysis and wealth event analysis to assess equity in health care financing and profit sharing in Tanzania. This approach quantified the distribution of health care financing and services among different socioeconomic groups, highlighting notable disparities and pointing to the need for regular assessments to achieve universal health coverage (Binyaruka, Kuwawenaruwa, Ally, Piatti, & Mtei, 2022).

In their 2022 study, Derrick Masafari, Ali Kilindo, and Cornell Mlacha used empirical analysis with the Autoregressive Distributed Lag (ARDL) technique to assess the long-term and short-term effects of external and household debt on interest rates. This methodology is particularly valuable for understanding the time-sensitive effects of public debt on private sector financing, as it shows that both external and domestic debt have a positive impact on long-term debt interest rates, while external debt has a negative impact on the short term. Their findings suggest that improving capital markets and financial market efficiency can boost private sector financing (Msafiri, Kilindo, & Mlacha, 2022).

2.6 Methodological and Theoretical Approaches in Economic Research

The report of the International Growth Centre (2014) and studies by researchers such as Mulenga (2017) have analysed the context of Zambia. These actions have documented those fluctuations in Zambia's REER, particularly influenced by changes in commodity prices and macroeconomic policies, have

hampered the ability of companies to secure equity financing from Zambian-listed companies. The depreciation of the Zambian kwacha, especially during periods of low copper prices, has increased perceived risks among investors, thus limiting their willingness to commit capital. This persistent volatility has led to a higher cost of capital, making equity markets less accessible and raising scepticism among investors due to fears of potential currency losses. Shanti Divakaran, Sam Schneider, and Patrick McGinnis (2018) examined Ghana's private equity and venture capital ecosystem, identifying key market players and barriers. The highlighted the need for legal, regulatory and tax reforms to improve the investment climate. Their study suggested that addressing these barriers could significantly improve the operational landscape for equity and venture capital financing in Ghana.

Recent studies exploring the impact of the Real Effective Exchange Rate (REER) on equity financing in Ghana provide valuable insights into how macroeconomic stability and institutional structures can influence investment climates in emerging markets. In their 2014 study, Yaw B. Osei-Tutu analysed the private equity sector in Ghana for a decade using a mixed-methods approach. It found a significant upward trend in investment activity with a compound annual growth rate of 18 percent, given that small and medium-sized enterprises (SMEs) account for more than 80 percent of private equity portfolio companies. Osei-Tutu suggested that the private equity industry could be further developed by reforming the regulatory framework and promoting public-private partnerships (Osei-Tutu, 2014).

Chelwa (2018) provides a comprehensive review of the existing literature on private equity in Zambia, summarizing key themes and findings from various academic papers, reports, and industry publications. The systematic review methodology employed by Chelwa ensures a thorough examination of available research, providing a solid foundation for understanding the current state of private equity in Zambia. The review highlights the growing interest in private capital within the country, but points to a significant gap in empirical studies on its impact. This lack of empirical data limits the ability to draw concrete conclusions and develop evidence-based policies. In addition, the review does not include recent developments or emerging trends in the private equity market, which are important for maintaining current relevance and understanding the evolving landscape. The absence of recent data means that the review may not fully capture the dynamic nature of the private equity sector, which may ignore the new investment opportunities and regulatory changes that have taken place since its publication.

To address these limitations, it would be very beneficial to conduct an updated review that includes recent data and new trends. This updated review can explore the latest private equity deals, regulatory changes, and market dynamics, providing a more accurate and comprehensive picture of the private equity landscape in Zambia. This approach will help policymakers, investors, and researchers make informed decisions based on the most up-to-date information available.

Mwewa (2020) provided literature reviews that focused on private equity in Zambia, similar to those found in Chelwa's work. The review employed literature search and qualitative synthesis of findings from various academic articles, reports, and industry publications. This methodology allows for a comprehensive summary of existing research on private equity, highlighting the potential benefits and challenges to the sector. The review highlights the need for more empirical studies to provide concrete evidence on the impact of private capital in Zambia. It highlights the sector's potential to drive economic growth, foster innovation and support the growth of small and medium-sized enterprises (SMEs). However, the review

also points to significant challenges, such as regulatory hurdles, low financial literacy, and an unstable macroeconomic environment.

Despite its thoroughness, Mwewa's reviews are somewhat redundant and lack significant engagement with the content. It closely mirrors the themes and conclusions presented in Chelwa's previous review, offering new perspectives or limited perspectives. To improve contributions to this area, a more analytical and critical review is needed that identifies gaps and inconsistencies in the existing literature. The purpose of such a review should highlight areas where current knowledge is lacking and propose directions for future research. An updated and more critical review could incorporate recent developments in the private equity market, explore emerging trends, and provide a more in-depth analysis of the positive and negative effects of private equity funding from Zambian listed companies. In doing so, it will provide a more comprehensive understanding of the private capital landscape in Zambia and support the formulation of effective investment policies and strategies.

2.7 Effects of Political Stability and Institutional Frameworks on Investment

A study by Lumbala (2019) explored the impact of monetary policy interventions on capital flows into Kenya using a mixed-methods approach. This research combined quantitative analysis of capital flow data with qualitative interviews with financial analysts and policymakers. Lumbala's findings highlighted that precise monetary policy tools, such as interest rate adjustments and liquidity management, were crucial in stabilizing the REER, resulting in attracting higher capital inflows and prompting greater participation in the NSE. The study shows that better communication strategies around monetary policy can lead to better management of investor expectations and encourage new capital inflows, thereby stabilizing the financial market.

A notable study by Rubunda, Namusong and Oluch (2019) examined the impact of retained earnings and equity financing structures on the growth of small and medium-sized manufacturing enterprises (SMEs) in Rwanda. The results showed that the equity financing structure has a positive and significant impact on SME growth, while the retained income financing structure was negligible. This underscores the importance of various financing options for SMEs to achieve sustainable growth.

Fisseha's 2023 study on the impact of financial repression on private investment by Fantaw Lekun uses advanced econometric techniques, namely co-integration and Dynamic Ordinary Least Squares (DOLS) estimation, to analyse the long-term relationship between financial repression and private investment in Ethiopia. Fisseha found that financial repression has a negative impact on private investment by limiting opportunities available to private investors. However, the study noted that structural reforms implemented since 2011 have begun to mitigate some of these negative impacts by facilitating more favourable conditions for private investment. This research shows that ongoing structural reforms are important to promote an investment-friendly environment that can boost economic growth and development (Fisseha, 2023).

Funyina's (2015) study delves into the impact of exchange rate volatility on private capital flows into Zambia, providing important insights into how exchange rate stability can affect investment decisions. Using time series data and econometric models such as Generalized Autoregressive Conditional

Heteroscedasticity (GARCH) and Johansson co-integration, the study carefully examines the relationship between exchange rate volatility and capital flows. The results indicate that exchange rate fluctuations have a negative impact on both inflation and private capital inflows, including Foreign Portfolio Investment (FPI). This negative impact suggests that investors are likely to be distracted by unexpected movements in exchange rates, which increase the risk associated with their investments. Accordingly, the study underscores the importance of maintaining exchange rate stability to attract private capital and boost economic growth in Zambia. Despite its extensive analysis, the study does not explicitly address the direct impact of real effective exchange rate (REER) fluctuations on equity financing, highlighting a significant knowledge gap. Future research should aim to explore this relationship in order to provide a more nuanced understanding of how exchange rate dynamics affect equity financing for Zambian-listed companies.

In examining the implications of the Real Effective Exchange Rate (REER) and equity financing in Uganda, a number of studies have provided insightful analyses of how these economic factors affect broader financial outcomes and business strategies within the country. A comprehensive study on the effects of capital flows on Uganda's real exchange rate used time series data and error-correcting method to study the impact of capital flows on Uganda's REER. The researchers found that an increase in capital inflows depreciates the REER, suggesting that such flows actually lead to a decrease in a country's exchange rate. Based on these findings, the study recommends encouraging production of non-tradable goods and encouraging greater capital flows, while advising a reduction in government spending in less productive tradable sectors. The objective of this strategy is to balance the effects of capital flows on the economy (Mambala, 2000).

2.8 Comparative Studies on Exchange Rate Policy Across Different Countries

k Comparisons with other developing countries, such as South Africa, Kenya, Ghana, Tanzania, Nigeria, Ethiopia, Uganda, Rwanda, Botswana, and Namibia, provide valuable insight into how Zambia can address the challenges posed by the destabilization of REER. Recent studies have largely explored the interplay between exchange rate stability, monetary policy interventions, and their effects on stock market developments and investor confidence in Kenya. This literature review synthesizes the findings of several important studies, focusing on the effects of exchange rate stability and regulatory frameworks.

Research on the impact of the Real Effective Exchange Rate (REER) on equity financing in Namibia is limited. However, there are relevant studies that address exchange rate dynamics and their macroeconomic implications. A relevant study by Mathe et al. (2023) examined the effects of exchange rate volatility on inflation in Namibia. Using quantitative analysis and regression models, they found that exchange rate stability is essential for attracting inflation. The study highlights that stable exchange rates create a favourable environment for equity financing by reducing uncertainty for investors.

Another study by Kgathi and Sejoe (2021) explored the impact of exchange rate movements on the profitability of Botswana's mining sector, contributing significantly to the country's GDP. The research employed time series analysis and econometric models to examine the relationship between exchange rate fluctuations and regional financial performance. The study shows that exchange rate fluctuations can have a substantial impact on the sector's financial results, highlighting the interconnectedness of exchange rates and equity financing across key industries. A relevant study by Mooketsi and Molefe (2022) examined the

effects of exchange rate volatility on inflation in Botswana. The study used quantitative analysis and regression models to assess the relationship between exchange rate stability and inflation flows. The results show that exchange rate stability is key to attracting inflation, which indirectly affects equity financing by providing a more predictable investment climate. This highlights the importance of exchange rate management in fostering an enabling environment for equity financing of Zambia-listed companies.

South Africa's approach to managing equity financing in the face of fluctuations in the real effective exchange rate (REER) is in stark contrast to Zambia's strategy, largely due to its more diversified economic structure. According to Chelwa (2018), the resilience of South Africa's stock market can be attributed to its strong institutional structure and macroeconomic base in contrast to Zambia, which is heavily dependent on copper exports, making it susceptible to external economic shocks. South Africa benefits from an economy that includes manufacturing, services, and agriculture. This diversification serves as a safeguard against the volatility associated with dependence on a single product, which improves the economic stability of the country and attracts more stable capital investment. In addition, South Africa's strong regulatory environment contributes significantly to maintaining a stable investment climate. Regulatory bodies in South Africa not only enforce regulations that protect investors but also maintain the integrity of the market during periods of monetary uncertainty.

On the regulatory front, Muli (2018) provided a comprehensive analysis of the institutional framework that governs Kenya's financial markets. Through qualitative case studies and interviews with key stakeholders, including Capital Markets Authority (CMA) regulators, Mulli demonstrated that strong institutional frameworks and effective investor protections were crucial to mitigate the negative effects of REER volatility. The research concluded that strong regulations and clear enforcement mechanisms significantly improved investor protection. Muli advocated ongoing reforms to strengthen these frameworks, which are necessary to maintain investor confidence amid exchange rate fluctuations.

Another important contribution to the literature is Capital Structure and Profitability in Ethiopian Banks in 2018 by Tigist Geta Mesfin, who conducted a case study analyzing the financial data of private commercial banks in Ethiopia. Mesafin's research focuses on understanding how different capital structures affect the profitability of these banks. The results reveal a substantial correlation between strategic capital structure management and the profitability of banks, indicating that well-managed capital structures can improve the performance of banks. The recommendation of this study is that banks carefully consider their debt-to-equity ratio to maximize profitability, suggesting that an optimal mix of equity and debt can lead to better financial outcomes (Mesfin, 2018).

The convergence of the results of these studies makes a compelling case for the important role of stable exchange rates and sound monetary policies in improving the performance of equity markets. Both exchange rate stability and the effectiveness of monetary interventions have been shown to boost investor confidence and facilitate increased capital flows, which are critical to the growth and stability of Kenya's stock markets. Moreover, the importance of strong regulatory frameworks cannot be overstated, as they provide the necessary protection to investors and help maintain investment flows even in volatile market conditions.

2.9 Financial Sector Performance and Market Developments

In 2018, John K. Aggrey explored financial inclusion using a qualitative approach based on the knowledge gap hypothesis. Their study focused on financial shifts in Tanzania and how they affect different income levels, identifying significant gaps in financial literacy and inclusion strategies. This qualitative analysis provided an in-depth understanding of the factors that lead to financial exclusion and underscored the importance of targeted educational programs (Aggrey, 2018).

Rwanda provides insight into effective exchange rate management through its sound macroeconomic policies, which have helped reduce the volatility of the REER. According to Musoni and Nkurunziza (2022), Rwanda's central bank employed a combination of foreign exchange interventions and regulatory reforms to maintain a competitive REER. These measures have boosted investor confidence, resulting in increased foreign portfolio investment in Rwanda's emerging equity market. Zambia can replicate these strategies to create a more predictable environment for equity investors.

Another study conducted by Omao (2023) compared the financial performance of Ecobank Rwanda and Equity Bank Rwanda, focusing on the effects of financial mix on the bank's performance. The research found a reliable positive correlation between the level of debt and the performance of the two banks, with Ecobank Rwanda emerging as the best financial performer. This highlights the need to carefully consider financial mix decisions to optimise the performance of banks. In addition, a working paper by Ngarambe Bahati and Nuwagira (2024) examined the equilibrium real exchange rate and its implications for the implementation of monetary policy in Rwanda. The study found that the REER misalignment may not have significant implications for monetary policy, but recommended continued monitoring of exchange rate misalignment due to its potential impact on macroeconomic stability.

The search for Real Effective Exchange Rate (REER) and equity financing in Nigeria has been detailed in a number of important studies, each of which uses different methodologies to understand how these financial mechanisms affect the country's economic structure. In 2021, Akaji Orji, Navadiyar E.O., and Agubata N. conducted a study focused on the impact of debt and equity financing on corporate performance in various sectors in Nigeria. Employing a pre-facto design in conjunction with a Ordinary Least Squares (OLS) regression model, their research showed that a balanced mix of debt and equity financing significantly improves company performance. This finding supports the idea that leveraging a mix of financing options can give companies the flexibility to optimize their capital structure for better financial outcomes (Orji, Nwadialor, & Agubata, 2021).

In Ethiopia, studies focusing on real effective exchange rates (REER) and equity financing have looked at how macroeconomic policies and financial structures affect the investment and profitability of financial institutions. These studies have employed various methodologies to capture the subtle effects of economic strategies and capital configuration within the country's growing financial sector.

Another fundamental study on "Raising Capital for Business by Debt or Equity in Uganda" from 2019 provided an overview of the business considerations involved in choosing between debt and equity financing in Uganda. The study highlighted the critical importance of selecting the right mix of financing options to optimize capital costs and economic returns. He emphasized that companies must carefully

assess their specific circumstances and economic environment when deciding on their capital structure to ensure financial stability and growth (Cristal Capital Advocates, 2019). Recent studies have explored the impact of the Real Effective Exchange Rate (REER) on equity financing in Rwanda, highlighting the complex relationship between exchange rate dynamics and financial performance.

These studies collectively improve our understanding of how fluctuations in the REER affect Tanzania's financial sectors. Using different methodologies, each research project provides a unique insight into the macroeconomic challenges facing Tanzania, providing valuable recommendations for improving regional policies and strategies. The findings underscore the need for comprehensive policy interventions and regulatory reforms to stabilize financial markets and promote equitable financial services across the country.

2.10 Gaps in Literature

While much research has been done on the macroeconomic effects of exchange rate policies, the direct relationship between the actual effective exchange rate and the equity financing of Zambian listed companies. It's a bit explored. Existing studies, such as those by Mwewa (2020) and Kabwe (2019), have generally focused on macroeconomic stability or sectoral impacts, without delving into the nuances of equity financing. This thesis aimed to fill this gap by providing an in-depth analysis of how fluctuations in REER affect equity financing, particularly in terms of investor confidence, cost of capital and sector-specific weaknesses. In addition, more empirical research is needed to examine the differential impact of REER volatility on various sectors of Zambia's economy, such as mining, agriculture, and manufacturing. Understanding these sector-specific dynamics will provide a clearer picture of how REER affects equity financing and where policy interventions are most needed.

Another difference in the literature relates to the role of institutional factors in mitigating the relationship between REER and equity financing of Zambia listed companies. Studies in other developing economies have shown that strong institutions, transparent regulatory frameworks, and investor protections can mitigate the adverse effects of exchange rate volatility (Chelwa, 2018; Lumbala, 2020). However, there is little research on how these factors work in the Zambian context. By exploring the role of institutional quality, this thesis seeks to provide a more nuanced understanding of the factors influencing the relationship between REER and equity financing of Zambian-listed companies. In addition, while studies such as Funyina (2015) and Kuntashula (2020) examine the broader effects of exchange rate changes on trade balances and capital flows, they do not specifically address the impact of REER on equity financing for Zambian companies listed on LuSE. This represents a notable distinction that warrants further investigation to uncover the direct links and mechanisms through which REER affects the equity financing of Zambian listed companies

In addition, recent studies by Chansa (2019) and Roger, et al., (2020) highlight the importance of exchange rate stability for investor confidence and private capital flows. However, these studies do not explicitly link these factors to equity financing, leaving gaps in understanding how exchange rate dynamics affect equity investments specifically. In addition, Mulenga (2017) and Lumbala (2019) emphasize the regulatory and institutional challenges facing private equity financing. Despite their valuable contributions, these studies do not explore how fluctuations in REER interact with these institutional

factors to influence capital financing, which reflects the need for more integrated research considering economic and institutional dimensions.

Finally, while Sakala and Hapompwe's (2023) recent work provides insight into SME perceptions of private equity versus debt financing, it underscores the need for quantitative validation of these assumptions in a broader sample. Future research should employ a mixed-methods approach to combine qualitative insights with quantitative data, providing a more comprehensive and general understanding of the financial landscape.

In summary, the literature reveals several gaps in understanding the direct relationship between REER and equity financing of Zambian listed companies. This thesis aimed to address these gaps by providing a comprehensive and empirically based analysis considering sector-specific impacts, institutional moderating factors, and the interaction between REER and equity financing dynamics.

2.11 Chapter Summary

In this chapter, the literature on the impact of the Real Effective Exchange Rate (REER) on equity financing was reviewed, with a focus on global, regional, and local perspectives. The discussion included an examination of how different countries have addressed the challenges posed by the destabilization of REER, drawing valuable lessons for Zambia. The review highlighted the limited study of the direct relationship between REER and equity financing, particularly in the context of Zambia. It analysed major studies conducted by Mulenga (2017) and Lumbala (2019), who examined the broad effects of exchange rate changes on trade balances and capital flows, respectively. However, these studies did not specifically address the impact of REER on equity financing, highlighting an important gap in the literature. Similarly, Chansa (2019) and (Roger, Smith, & Morrissey, 2020) emphasized the importance of exchange rate stability for investor confidence and private capital flows, but without explicitly linking these factors to the equity financing of Zambia-listed companies.

In addition, the review explored the role of institutional factors in moderating the relationship between REER and equity financing, drawing on studies from other developing economies (Chelwa, 2018; Lumbala, 2020). However, there is little research on how these factors work in Zambia, highlighting another important difference. In addition, while studies such as Mulenga (2017) and Lumbala (2020) looked at regulatory and institutional challenges for private equity, they did not explore how fluctuations in REER interact with these factors to affect equity financing for Zambian-listed companies. Recent studies by Sakala and Hapompwe (2023) provided insight into SME perceptions of private equity versus debt financing, but their qualitative nature limits the generality of the findings. More quantitative research is needed to validate these assumptions in a larger sample.

The results of this literature review provided a basis for further analysis, which contributes to a deeper understanding of the factors affecting the equity financing of Zambian listed companies. The chapter concludes with the identification of significant gaps in the literature, which aim of this thesis to provide an in-depth analysis of how fluctuations in REER affect equity financing, particularly in terms of investor confidence, cost of capital, sector-specific weaknesses, and the role of institutional factors.

3. METHODOLOGY

The research methodology involved a systematic and scientific approach to examining the impact of the real effective exchange rate on the equity financing of Zambian companies listed on LuSE. This chapter described the methods and techniques used in conducting research, covering research design, study scope, study population, study sampling, sampling techniques, data collection tools, data collection procedures, and data analysis procedures, with a focus on quantitative and qualitative approaches to ensure robustness and reliability of findings.

3.1 Research Design

This study employed a mixed-methods research design to provide a comprehensive analysis of the impact of REER on equity financing for Zambian companies listed on LuSE. The combination of quantitative and qualitative methods allowed for an in-depth examination of both numerical data and stakeholder perspectives, ensuring a holistic understanding of the research problem.

The quantitative approach aimed to empirically investigate the relationship between REER fluctuations and equity financing in companies listed in Zambia. Monthly data was collected for the period from September 2020 to September 2024, which focused on REER, Stock Market Index or LuSE All Share Index (LASI), Inflation and Liquid Asset Ratio (LAR). This data is provided by trusted institutions such as the Bank of Zambia, the Ministry of Finance, CEIC Data and the Lusaka Securities Exchange (LuSE). Prior to analysis, the data underwent seasonal adjustments using the X12 ARIMA seasonal adjustment procedure to ensure accuracy. In addition, the data were converted to natural logarithms to stabilize the variance, which facilitated meaningful comparisons (Box & Jenkins, 1976).

For quantitative analysis, initial unit root testing was performed to verify stability using augmented Dickey-Fuller (ADF) and Phillips-Perron (PP) tests (Dickey & Fuller, 1979; Phillips & Perron, 1988). Recognizing that traditional unit root testing cannot account for structural changes, Carrion-I. Silvestre et al. (2009) suggest that the test is not the same as the one in the first place. Unit route testing was employed, which allowed for many structural breaks in the data. To investigate the long-term relationships between variables, considering multiple structural breaks, the Maki (2012) co-integration test was used. This approach helped to understand the complex dynamics between REER and equity financing of Zambian listed companies.

The qualitative approach aimed to understand the key stakeholders' perspectives on the impact of REER on equity financing for Zambian companies listed on LuSE. Qualitative data was collected through questionnaires distributed to representatives of financial institutions, private equity firms, regulatory bodies, and officials of listed companies. A questionnaire protocol was developed to ensure consistency and completeness in data collection. The questionnaires included open-ended questions designed to elicit detailed responses regarding stakeholders' views and experiences. The collected data was then transferred for further analysis, allowing for a detailed exploration of stakeholder perspectives. For a qualitative analysis of the data, grounded theory was used to analyse the responses from the questionnaires. This included data coding to identify key themes and patterns related to equity financing and perceptions of

REER. The qualitative findings were then triangulated with quantitative data to ensure consistency and depth of the analysis, providing a complete understanding of the research problem (Charmaz, 2006).

The integration of quantitative and qualitative methods provided a comprehensive understanding of the impact of REER on equity financing for Zambian companies listed on LuSE. Quantitative data offered empirical evidence of relationships and trends, while qualitative data provided context and understanding of the underlying mechanisms and stakeholder attitudes. This mixed-methods approach allowed for more robust and nuanced analyses, ensuring that the findings were reliable and meaningful. Based on the integrated findings, policy recommendations were made to maintain exchange rate stability and enhance investor confidence, thereby supporting equity financing for Zambia-listed companies. The results were also compared with a similar study on Turkey to highlight similarities or differences in the impact of exchange rate fluctuations on the financial sector, providing a broader perspective on the topic (Maki, 2012; Carrion-i Silvestre et al., 2009).

By employing this detailed mixed-methods research design, the study aimed to provide a rigorous and comprehensive analysis of the impact of the real effective exchange rate on the equity financing of Zambian companies listed on LuSE, providing valuable insights for policymakers, investors and researchers.

3.2 Study Area

The study was conducted in Zambia, focusing specifically on listed companies, particularly those listed on the Lusaka Securities Exchange (LuSE). This field of study was chosen because it represents the core of equity financing activities within the country. Zambia's economy is heavily dependent on specific industries such as mining, agriculture, and services, which provide the necessary context for analysing how the Real Effective Exchange Rate (REE) affects these different sectors. Lusaka, the capital of Zambia, was a strategic location for the studio, as it is home to the headquarters of most listed companies. This centralization of corporate offices facilitated access to key stakeholders involved in equity financing, including executives and financial managers who play a key role in corporate financial decisions. In addition, the study area was extended to major financial regulatory institutions, such as the Bank of Zambia and the Securities and Exchange Commission. These institutions are important in shaping financial policies and regulations that affect the equity financing of Zambian listed companies. By incorporating the perspectives of these regulatory bodies, the study aimed to capture the regulatory implications on equity financing and the impact of REER more holistically. By focusing on Lusaka and its leading financial institutions and companies, the study ensured a comprehensive review of equity financing in Zambia's main economic hub. This approach facilitated a detailed understanding of how fluctuations in REER affect equity financing decisions and the broader financial landscape of the country.

3.3 Study Population

The target population of this study was made up of 22 companies listed on the LuSE stock exchange. In addition to these companies, the study focuses on financial managers, equity analysts, senior executives of these listed companies, and policymakers from relevant financial regulatory bodies such as the Bank of Zambia and the Securities and Exchange Commission. The involvement of key stakeholders from various

sectors ensured that the study captured a comprehensive view on the factors affecting the equity financing of Zambian listed companies. (Lusaka Securities Exchange, 2024)

By involving participants from different sectors, the research aimed to understand the sector-specific impacts of REER's fluctuations in equity financing of Zambian companies listed on LuSE. The study was designed to cover a variety of sectors including finance, manufacturing, agriculture, and energy. These regions were selected because they represent significant contributors to Zambia's GDP and are highly sensitive to exchange rate fluctuations. For example, the financial sector is directly affected by exchange rate movements, which can affect interest rates and financial stability. The manufacturing sector's dependence on imported raw materials makes it vulnerable to exchange rate fluctuations, while the capital-intensive nature of the energy sector and its dependence on foreign investment reflect its sensitivity to fluctuations in REER.

By covering these different sectors, the study aimed to develop a comprehensive understanding of how REER affects equity financing in different sectors of the economy. Perspectives from policymakers, financial analysts, and company executives were incorporated to address strategic and operational considerations. This approach provided a holistic view of the challenges and opportunities presented by REER's volatility, allowing a comprehensive analysis of its effects on the equity financing of Zambian companies listed on LuSE. The involvement of equity financial managers and analysts ensured that practical knowledge was gained on the operational aspects of equity financing. Senior executives provided strategic perspectives on how companies navigate exchange rate challenges, while policymakers from the Bank of Zambia and the Securities and Exchange Commission offered regulatory approaches. This diverse mix of participants contributed to a fuller understanding of REER's impact on equity financing for Zambia's companies listed on LuSE.

3.4 Study Sample

The study sample included about 22 listed companies with 49 monthly observations from September 2020 to September 2024. In addition, the sample size included 31 respondents from the target population including finance professionals in listed companies and experts from regulatory institutions. This sample was taken from financial managers, equity analysts, senior executives, and policymakers. The sample size was considered to be sufficient to provide meaningful information, while still being manageable for in-depth data collection and analysis. To ensure a comprehensive understanding, the sample represents a representative sample of industries listed on the Lusaka Securities Exchange (LuSE), including the financial sector, manufacturing, agriculture, and energy. By including respondents from diverse backgrounds, the study aimed to get a holistic view of the impact of the Real Effective Exchange Rate (REER) on equity financing for Zambian companies listed on LuSE.

To improve the representation of the sample, additional criteria were used to select participants. These criteria included the size of the company (e.g. large-cap vs. small-cap companies), degree of participation in international trade, and exposure to foreign exchange transactions. This stratification allowed the study to identify differential effects of REER on equity financing based on firm size and international exposure. For example, large companies have more resources and diversification to manage exchange rate risks than small-cap companies, which may be more sensitive to fluctuations. The sample also included

representatives from different hierarchical levels within companies to capture strategic and operational perspectives. Senior executives provided insight into strategic decisions and long-term planning related to equity financing, while financial managers and equity analysts provided detailed operational information. Policymakers from the Bank of Zambia and the Securities and Exchange Commission provided their regulatory perspectives, highlighting how financial policies and regulations affect equity financing dynamics. By carefully selecting a diverse and representative sample, the study ensured that the results were robust and reflected the various factors affecting the equity financing of Zambian listed companies. This approach allowed for a comprehensive analysis of the sectoral implications of REER fluctuations, providing valuable insights for policymakers, investors, and business decision-makers.

3.5 Sampling Techniques

3.5.1 Deliberate Sampling

A deliberate sampling technique was employed to select respondents with extensive knowledge of equity financing, real effective exchange rate (REER) and the financial market in Zambia. This technique was considered suitable because it allows the selection of those who are most likely to provide rich and relevant information, given their experience and expertise in the subject. The sample included about 31 respondents, including financial managers, equity analysts, senior executives and policymakers. This selection ensured that the sample was made up of people with direct experience and knowledge of equity financing, exchange rate effects and financial policy dynamics (Etikan, Musa, & Alkassim, 2016).

3.5.2 Stratified Sampling

In addition to objective sampling, stratified sampling was used to ensure that perspectives from different industry sectors were adequately represented. The approach involved ranking 22 publicly traded companies in relevant sectors, such as financial sector, manufacturing, agriculture, and energy, and proportionate selection of participants from each sector. This stratification helped to understand the sectoral effects of REER fluctuations on the equity financing of Zambian companies listed on LuSE. The stratified sampling approach was particularly important to ensure that the results were not biased towards any one region, but rather reflected Zambia's macroeconomic landscape. (Creswell & Creswell, Research Design: Qualitative, Quantitative, and Mixed Methods Approaches, 2017)

Stratified sampling allowed us to capture different regional perspectives. For example, the sensitivity of the financial sector to exchange rate fluctuations, the dependence of the manufacturing sector on imported raw materials, and the dependence of the energy sector on foreign investment were considered. By engaging participants from these different sectors, the study aimed to provide a comprehensive understanding of how the fluctuations of REER affect equity financing in the economy.

3.5.3 Snowball Sampling

In addition, snowball sampling was used to identify other participants who had special knowledge or experience that could enrich the study. This approach was particularly useful in identifying policymakers or financial experts who may not be directly related to listed companies, but who had significant knowledge of the regulatory or macroeconomic aspects of REER and equity financing of Zambian listed

companies. Snowball sampling included early responders who referred other knowledgeable individuals, which broadened the pool of participants and ensured that diverse and valuable ideas were captured (Naderifar, Goli, & Ghaljaie, 2017).

By deliberate, combining stratified and snowball sampling techniques, the study ensured a complete and representative sampling. Purposefully selected experienced individuals with direct knowledge of sampling, equity financing, and REER impacts. Stratified sampling ensured regional representation while capturing the specific effects of REER in different segments of the economy. Snowball sampling identified additional specialists, which improved the depth and breadth of the information collected. This multifaceted approach provided a solid foundation for the study's findings, providing valuable insights for policymakers, investors, and researchers into understanding the complexities of REER and the equity financing of Zambian listed companies.

3.6 Data Collection Tools

Data for this study were collected using primary and secondary sources to ensure comprehensive coverage of research objectives. The use of multiple data collection methods provided a solid foundation for the analysis, allowing for an in-depth investigation of the impact of the Real Effective Exchange Rate (REER) on the equity financing of Zambian companies listed on LuSE (Creswell & Creswell, Research Design: Qualitative, Quantitative, and Mixed Methods Approaches, 2017).

3.6.1 Primary Data

Primary data was obtained through structured questionnaires designed to gather detailed information from key stakeholders, including financial managers, equity analysts, senior executives, and policymakers. The questionnaire was distributed to CFOs and equity analysts of companies listed on the Lusaka Securities Exchange (LuSE). The questions focused on respondents' experiences and perceptions of the impact of REER on equity financing, their companies' financial strategies, and their views on exchange rate volatility. The structured format ensured consistency of responses, allowing for quantitative analysis of the data.

In addition, the questionnaire was sent to senior executives of public enterprises and officials and policymakers of relevant financial regulatory bodies, such as the Bank of Zambia and the Securities and Exchange Commission. The purpose of these questionnaires is to unearth in-depth knowledge and collect qualitative data on the impact of REER on the equity financing of Zambian companies listed on LuSE.

The topics of the questionnaire include strategic responses such as exchange rate fluctuations, regulatory environment, and macroeconomic implications of REER moves. Using structured questionnaires, the study ensured that the data collected was complete and reliable, allowing for a comprehensive analysis of the relationship between REER and equity financing.

3.6.2 Secondary Data

The secondary data included the following key variables: real effective exchange rate, inflation, liquidity asset ratios and equity financing of Zambian listed companies. These data sources provided a complete context in which the primary data could be analysed.

Data on the monthly real effective exchange rate were obtained from CEIC Data. These data included historical REER values and other relevant exchange rate parameters, which were necessary to analyse the relationship between REER and equity financing of Zambian-listed companies. Data on investor confidence were obtained from financial market reports, investor surveys and sentiment indices published by the Lusaka Securities Exchange (LuSE), the Bank of Zambia and other relevant financial institutions. This data provided insight into how changes in REER affected investor sentiment and behaviour in the equity market. The information on foreign direct investment was obtained from the Zambia Development Agency (ZDA), the World Bank and the United Nations Conference on Trade and Development (UNCTAD). These figures included inflation inputs, sectoral distribution of inflation, and data on trends over time. Understanding the level and effects of inflation was crucial to analysing their relationship with the equity financing of Zambian listed companies. The financial reports of the companies listed on LuSE provided quantitative data on equity financing, company performance, and financial strategies. These reports were important for understanding the financial health and practices of the companies studied. In addition, historical trends and metrics related to equity issuance and market capitalization were analysed to understand the broader picture of equity financing. In addition, secondary data were obtained from African financial and CEIC data. These sources provided valuable insights into the financial performance and liquidity indicators of Zambia's companies, which supplemented the primary data and enriched the analysis.

By combining primary and secondary data sources, the study ensured a full and nuanced understanding of the impact of REER on equity financing for Zambian companies listed on LuSE. Structured questionnaires and semi-structured interviews provided direct input from key stakeholders, while secondary data provided a quantitative basis for the analysis. This multi-method approach improved the reliability and depth of the findings, contributing to a comprehensive and in-depth investigation.

3.7 Data Collection Process and Timeline

Structured questionnaires were distributed to selected financial managers, equity analysts, senior executives and policymakers. These questionnaires were designed to collect detailed quantitative data on the impact of the Real Effective Exchange Rate (REER) on equity financing for Zambian companies listed on LuSE. The delivery of the questionnaire was done both electronically and through face-to-face visits to ensure maximum participation and response rate. Follow-up reminders were sent to non-respondents to encourage higher response rates and to ensure that the data collected was representative and complete.

The structured format of the questionnaire ensured consistency of responses, allowing for detailed and comprehensive analysis. By limiting data collection to one month, the study maintained a focused and efficient approach, facilitating an in-depth investigation of the impact of REER on equity financing for Zambia-listed companies.

3.8 Data Analysis Tools and Processes

The data collected was analysed using quantitative and qualitative methods to ensure an in-depth investigation of the impact of the Real Effective Exchange Rate (REER) on equity financing for Zambian companies. This mixed-method approach allows for robust and granular information based on both numerical data and stakeholder perspectives (Miles & Huberman, Qualitative Data Analysis: An Expanded Sourcebook, 1994).

3.8.1 Quantitative Data Analysis

The quantitative data was analysed using statistical software such as Stata version 18 is well regarded in social science research for its powerful abilities in handling complex data sets and performing a wide range of statistical analyses. (StataCorp. , 2019)

3.8.1.1 Descriptive Statistics

Descriptive statistics, such as instruments, standard deviations, and frequencies, will be used to summarize the data. These statistics provide a clear view of the central trend, variability, and distribution of data, helping to describe the characteristics of the sample population. For example, the instrument and standard deviation will help clarify the mean and variability of responses with respect to the impact of REER on equity financing for Zambian companies listed on LuSE (Field, 2018).

3.8.1.2 Correlation and Regression Analysis

Correlation analysis was used to determine the strength and direction of the relationship between the real effective exchange rate (REER) and equity financing variables. This analysis helped identify the degree of association between changes in REER and changes in equity funding metrics, such as companies' ability to attract investment and the overall performance of the equity market.

A regression analysis was carried out to further study whether the fluctuations of REER had a significant impact on the ability of Zambian listed companies to obtain equity financing from Zambian listed companies. Several regression models were used to control for other variables that could affect equity financing outcomes, such as interest rates, foreign exchange reserves, and sector-specific factors. By including these additional variables, the analysis aimed to isolate the impact of REER fluctuations on equity financing and provide a more accurate assessment of its significance.

Several regression models were used to examine the impact of REER on equity financing, taking into account other influencing factors. These models helped to understand the combined effect of multiple predictions on the dependent variable. For example, the regression model made it possible to estimate the impact of REER on equity financing while controlling interest rates and foreign exchange reserves. This approach provided a clearer picture of the relationship between REER and equity financing of Zambian-listed companies. Correlation analysis measured the strength and direction of the relationship between REER fluctuations and equity funding metrics (Dancey & Reidy, 2017). Regression analysis explored these relationships by modelling the impact of REER on equity financing outcomes, controlling for other relevant variables (e.g. investor confidence and inflation) (Tabachnick & Fidell, 2019). This approach allowed the identification of important predictors and the estimation of their impact, providing evidence for or against the hypotheses raised.

The results of the regression analysis were presented in tables for ease of interpretation and comparison. The tables showed regression coefficients, standard errors, and levels of significance, providing a detailed description of the relationships between variables. This helped to visualize the impact of REER fluctuations on the adjustment of the regression model and the equity financing of Zambian companies listed on LuSE. By employing correlation and regression analysis, the study aimed to provide a comprehensive understanding of how the fluctuations of REER affected the equity financing of Zambian listed companies. These analyses helped identify whether fluctuations in REER were key predictors of equity financing challenges faced by companies listed in Zambia, providing valuable insights for policymakers, investors, and business leaders.

3.8.2 Qualitative Data Analysis

Qualitative data from questionnaires were analysed using thematic analysis, a method of identifying, analysing, and reporting patterns within the data. This method is particularly suitable for qualitative research, as it provides a systematic approach to understanding complex data and generating meaningful insights (Miles, Huberman, & Saldaña, Qualitative Data Analysis: A Methods Sourcebook, 2014).

3.8.2.1 Thematic Analysis

Thematic analysis involved data coding and developing topics that captured the essence of participants' experiences and perceptions. The process involved familiarizing oneself with the data, generating seed code, searching for topics, reviewing topics, defining and naming themes, and preparing final reports. This rigorous approach ensured that the qualitative data were thoroughly examined and the conclusions were based on the narratives of the participants (Braun & Clarke, 2006).

3.8.2.1.1 Coding Process

Thematic analysis was carried out in several stages to ensure a systematic and rigorous review of the data. The analysis began with the initial phase of open coding, in which the interview transcripts were thoroughly read, and the initial code was generated. This process involved identifying and labelling segments of data that were relevant to the research questions.

Initial Open Coding: During the Open Coding phase, each transcript was examined line by line to identify key concepts and phrases. This approach allowed for a detailed and complete understanding of the data, ensuring that all relevant information was captured.

Broad Themes And Sub-Themes: After the initial coding, broad themes and sub-themes were identified. Topics such as "investor confidence", "sector-specific vulnerabilities" and "policy responses to REER volatility" were identified and explored. These topics provided a deeper understanding of the qualitative dimensions of the research problem and highlighted the various factors affecting the equity financing of Zambian listed companies.

Final Review of Topics: The final review of the topics was conducted to ensure that they accurately reflect the data and address the research questions. This review involved refining the subjects, ensuring consistency, and ensuring that the subjects were well supported by the data. The final themes were then defined and designated to clearly represent the main findings of the analysis.

NVivo software was used to help encode and organize qualitative data. NVivo is a powerful tool for qualitative data analysis, providing the functionality to systematically manage, encode and analyse large volumes of text data (QSR International, 2020). The software facilitated the organization of data and ensured a rigorous and systematic approach to thematic analysis.

3.8.2.2 Triangulation

The findings of the thematic analysis were triangulated with quantitative results to provide a comprehensive understanding of the research problem. The triangulation involved the comparison and integration of qualitative topics with quantitative data to identify continuities and discrepancies. This approach helped confirm the findings and improve the overall reliability and validity of the study (Creswell & Plano Clark, Designing and Conducting Mixed Methods Research, 2017). By employing thematic analysis, the study was able to capture the nuanced experiences and perceptions of key stakeholders about the impact of REER on equity financing for Zambian companies listed on LuSE. This qualitative approach complements quantitative analysis, provides a holistic view of the research problem and provides valuable insights for policymakers, investors, and business leaders.

3.8.3 Validity and Reliability

To ensure the validity and reliability of the research results, several measures were taken throughout the study. These measures were designed to improve the accuracy, consistency and reliability of the data collected and subsequent analysis.

3.8.3.1 Questionnaire Pre-Test

Structured questionnaires were pre-tested with a small group of financial professionals prior to large-scale data collection. The purpose of this pre-testing phase is to identify any ambiguities, misunderstandings, or issues with the questionnaire design. Feedback from the pre-test group was used to refine and adjust the questionnaire, ensuring that the questions were able to capture clear, relevant, and intended information. This step was important in increasing the validity of the questionnaire, as it helped to ensure that respondents understood the questions, as intended (Dillman, Smyth, & Christian, 2014).

3.8.3.2 Consistency in Data Collection

Consistency in data collection was maintained through the use of standardized procedures for administering questionnaires and conducting interviews. The structured questionnaire provided a uniform set of questions for all respondents, ensuring that the same amount of information was collected from each participant. The semi-structured interviews followed a consistent interview protocol, which allowed for flexibility and ensured that key topics were covered in each interview. This consistency helped to reduce variability and improve the reliability of the data collected (Patton, 2015).

3.8.3.3 Statistical Tests

Additional statistical tests, such as diagnosing heterogeneity and Multicollinearity, were performed to ensure the robustness of the regression model. Heteroscedasticity tests were checked for any inconsistency in the variance of errors at different levels of the independent variable. Multicollinearity diagnostics were used to identify and address any high correlations between independent variables, which could distort the

results of regression analysis. These tests helped verify that the assumptions of the regression analysis were met, which improved the reliability of the findings (Gujarati, 2009).

By applying these measures, the study is to ensured that the research results were valid and reliable, providing a reliable and accurate analysis of the impact of the real effective exchange rate on the equity financing of Zambian companies listed on LuSE.

3.9 Chapter Summary

In this chapter, the methodology for examining the impact of the Real Effective Exchange Rate (REER) on the equity financing of Zambian companies listed on LuSE is comprehensively outlined. Employing a correlational and explanatory research design, the study integrates quantitative and qualitative approaches to obtain a deeper understanding of the research problem. Data collection was carried out through structured questionnaires and semi-structured interviews, focusing on listed companies and Zambia's key financial stakeholders. Quantitative data were analysed using statistical methods, while qualitative data were examined using thematic analysis. Rigorous ethical considerations and measures were implemented to ensure the validity and reliability of the findings, including pre-testing tools, data triangulation, and robust statistical testing. This methodological approach provided a solid basis for meaningful and reliable findings, providing valuable insights into the impact of REER on the equity financing of Zambian companies listed on LuSE and which inform policy and investment decisions.

4. DATA PRESENTATION AND ANALYSIS

4.0. Data Presentation and Analysis

This chapter is based on interpretation and analysis of data using the method suggested in the previous chapter. The chapter begins by presenting the qualitative results followed by the quantitative results.

4.1. Quantitative Analysis

This section begins with a summary of the results of the data descriptive data, followed by the results of the stationarity test using the two stationarity tests: Augmented Dickey Fuller; and Phillips-Perron. The chapter concluded by presenting the results of clinical trials, which are carried out to determine the efficacy and reliability of the data

4.1.1. Descriptive Statistics

This section presents descriptive statistics of the variables used in our analysis, in particular the logarithmic changes of the Lusaka All Share Index (lnlasi), the real effective exchange rate (lnreer), the inflation rate (lnInfl) and the liquid asset ratio (lnlar). Table 4.1 summarises the mean and standard deviation of each variable.

Table 4.1: Descriptive Statistics

Variable	*Obs*	*Mean*	*Std. Dev*	*Min*	*Max*
lnlasi	49	8.6608	0.5181	8.2430	9.6793
lnreer	49	4.7037	0.3181	4.4594	5.1672
lnInfl	49	2.6144	0.2870	2.2407	3.2043
lnlar	49	3.8173	0.0713	3.7338	3.9291

Table 4.1 presents descriptive statistics of logarithmically transformed variables used in this analysis, including the Lusaka All Stocks Index (lnlasi), the real effective exchange rate (lnreer), the inflation rate (lnInfl) and the liquid assets ratio (lnlar). Each variable is examined through 49 observations, representing a specific time series period. The Lusaka All Share Index (LNLASI) shows an average value of 8.6608, which indicates the average level of the index on a logarithmic scale. The standard deviation of 0.5181 suggests a considerable degree of volatility within the index, suggesting a substantial fluctuation in market capitalization over the observed period. The range from the low of 8.2430 to the high of 9.6793 further underlines this variability, which is typical of emerging market equity indices.

Moving on to the real effective exchange rate (lnreer) converted by the logarithm, we observe 4.7037 on average. A standard deviation of 0.3181 indicates moderate fluctuations in the currency's real effective exchange rate, indicating changes in Zambia's trade competitiveness. The range of values, from 4.4594 to 5.1672, supports this observation of moderate variability. The average of the logarithmically transformed inflation rate (lnInfl) is 2.6144. The standard deviation of 0.2870 indicates moderate variability in inflation rates, which reflects the dynamic nature of price levels within the economy. The range of values, from 2.2407 to 3.2043, further highlights these fluctuations.

In contrast, the logarithmically transformed liquid asset ratio (LNLAR) exhibits a significantly lower standard deviation of 0.0713 with an average of 3.8173. This low dispersion means remarkable stability in the liquid asset holdings of financial institutions, reflecting sound liquidity management practices. The narrow range of values, from 3.7338 to 3.9291, reinforces this observation, which suggests a sustained level of liquidity within the banking sector. The difference in the standard deviation of these variables highlights the varying degrees of volatility and stability of Zambia's economy. The high volatility of the Lusaka All Share Index, coupled with the medium variability of the real effective exchange rate and the inflation rate, contrasts sharply with the stability of the liquid asset ratio. These descriptive statistics provide a fundamental understanding of the dynamics of major macroeconomic and financial variables, laying the groundwork for further econometric analysis.

4.1.2. Unit Root Testing

Traditional analysis of time series data assumes that time series data is constant. However, in practice, most macroeconomic variables are not as constant as a level and therefore present the risk of obtaining fake regression results if they are run as their level. In this study, ADF and PP unit root tests were used for consistency in variables at both form level *I(0)* and first differential level *I(1)* and the results are shown in Tables 4.2, 4.3, 4.4 and 4.5. This was done with continuous, trending, and drifting intersections in mind,

with the null hypothesis that a unit is rooted in the model versus the alternative hypothesis that no entity in the model is rooted. The rule of judgment is as follows: reject the null hypothesis if the p-value is less than the significance level of 5%, otherwise we cannot reject the null hypothesis. Another general rule is to reject the null hypothesis if the test data, in absolute terms, exceeds the critical value at the chosen significance level, in this case 5%.

Variable	**MacKinnon p-value**		**Integration commands**
	At the level	At first difference	
Lnlasi	0.000	0.000	***I(0)***
Lnreer	0.000	0.000	***I(0)***
Lninfl	0.000	0.000	***I(0)***
Lnlar	0.053	0.000	***I(1)***

Table 4.2: Mackinnon p-value results according to augmented Dickey Fuller test results

Table 4.3. Results of critical values under ADF test

Variable	**At Level**		**At First Difference**		**Order of Integration**
	Critical Value	Test Statistic	Critical Value	Test Statistic	
lnlasi	-2.9266	-6.69	-2.9290	-7.41	***I*(0)**
lnreer	-2.9266	-6.89	-2.9290	-6.90	***I*(0)**
lninfl	-2.9266	-7.72	-2.9290	-7.60	***I*(0)**
lnlar	-2.9266	-1.97	-2.9290	-6.52	***I*(1)**

The analysis began with the evaluation of the time series properties of logarithmically transformed variables, namely the Lusaka All Stocks Index (lnlasi), the Real Effective Exchange Rate (lnreer), the inflation rate (lninfl), and the Liquid Asset Ratio (lnlar), using the augmented Dickey-Fuller test (ADF). This test, which is important for determining the presence of a unit root, serves as an important preparatory step for subsequent econometric modelling. For the lnlasi, the calculated ADF test statistic of -6.69 strongly rejected the null hypothesis of a unit root at the 5% significance level, indicating stability. This finding implies that fluctuations in the Lusaka All Share Index are returned to the mean, a prerequisite for applying standard time series techniques. Similarly, the results of the ADF tests for lnreer and lninfl with

test data of -6.89 and -7.72, respectively, demonstrated clear consistency, confirming that both the real effective exchange rate and the inflation rate show mean-reversal behaviour.

However, the logarithmically transformed liquid asset ratio presented an opposite result. The ADF test statistic of -1.97 was not strong enough to reject the null hypothesis of a unit root at the 5% significance level, thus establishing the lnlar as non-static. This non-consistency suggests that perturbations in liquid asset ratios can have a persistent effect, which requires careful consideration in subsequent econometric models. The disparity in consistency between the lnlar and other variables highlights the fundamental difference in their time-series properties, which should be taken into account in further analysis.

In order to address the non-stability of the lnlar and check the stability of changes in all variables, the first differences of the transformed logarithmic series were subjected to ADF testing. The results consistently demonstrated consistency across all differentiated variables. Specifically, the changes in logarithmically transformed LASI, REER, inflation, and LAR, as evidenced by ADF test data of -7.41, -6.90, -7.60, and -6.52, respectively, were found to remain stable at the 5% significance level. This same consistency of the first differentiated series is particularly important, as it allows the application of standard time series techniques such as vector autoregression (VAR) models, without worrying about simulated regression results. The transformation of non-static lnreer into a stable series through differentiation underscores the importance of addressing unit core problems for a robust econometric analysis. Stability in the differentiated series across all variables indicates that changes in these economic indicators are stable and predictable over the long term, regardless of whether the levels themselves exhibit varying degrees of stability or non-stability.

Table 4.4: Philips-Perron test results

Variable	**PP MacKinnon p-value**		**Order of Integration**
	At Level	At First Difference	
Lnlasi	0.000	0.000	***I*(0)**
Lnreer	0.000	0.000	***I*(0)**
Lninfl	0.000	0.000	***I*(0)**
Lnlar	0.058	0.000	***I*(1)**

Table 4.5: Results of Critical Values Under PP Test

Variable	**At Level**		**At First Difference**		**Order of Integration**
	Critical Value	Test Statistic	Critical Value	Test Statistic	
Lnlasi	-2.9266	-7.06	-2.9290	-7.53	***I*(0)**
Lnreer	-2.9266	-6.87	-2.9290	-7.02	***I*(0)**
Lninfl	-2.9266	-7.57	-2.9290	-7.62	***I*(0)**
Lnlar	-2.9266	-1.94	-2.9290	-6.64	***I*(1)**

Tables 4.3 and 4.4 show the results of the Phillips-Perron (PP) test. The stability of logarithmically transformed variables, namely lnlasi, lnreer, lninfl and lnlar, was evaluated using the Phillips-Perron (PP) test with a significance level of 5%. For the logarithmically transformed Lusaka All Share Index (lnlasi), the PP test figure was -7.06, which is significantly lower than the 5% critical value of -2.9266. This result rejected the null hypothesis of a unit root, confirming that lnlasi is stable. Similarly, the logarithmically transformed real effective exchange rate (lnreer) obtained a PP test figure of -6.87, which is even lower than the critical value, indicating stability. The logarithmic metamorphosed inflation rate (lninfl) produced a PP test figure of -7.57, which again resulted in the rejection of the zero hypothesis, confirming its stability. However, the logarithmically transformed liquid asset ratio (lnlar) presented a different result. The PP test statistic of -1.94 was higher than the critical value of -2.9266, which means that the null hypothesis of a unit root cannot be rejected, indicating that the lnlar is not stable.

In order to address the non-consistency of the INLR and to check the stability of the first differences of all variables, the PP test was carried out with a significance level of 5% across d_lnlasi, d_lnreer, d_lninfl and d_lnlar. d_lnlasi the first lnlasi gap yielded a PP test statistic of -7.53, which is less than the 5% critical value of -2.9290, indicating stability. Similarly, REER first difference produced a PP test figure of -7.02, which is even lower than the critical value, which confirms the stability. At first difference, inflation resulted in a PP test statistic of -7.62, which again indicated stability. Finally, at first difference LAR obtained a PP test statistic of -6.64, which was even lower than the critical value, indicating stability.

4.1.3. ARDL Testing for Co-Integration

It is a requirement for the co-integration test that the number of optimal intervals to be used in the model is determined.

4.1.3.1. Backlog Selection Criteria

Determining the optimal delay length is an important step in time series modelling, especially when employing vector autoregression (VAR) models. To this end, a series of delay length selection tests were

performed, which produced a set of clinical data designed to assess the balance between model fit and parsimony. The results presented in tabular format include interval length, logarithmic probability (LL), probability ratio (LR), degree of independence (DF), p-value (p), ultimate prediction error (FPE), Akaike information criterion (AIC), Hannan-Quinn information criterion (HQIC), and Schwarz Bayesian information criterion (SBIC). The logarithm (LL) of probability serves as a measure of the goodness of the model's fit, with higher values indicating a better fit for the data. The probability ratio (LR) test compares the fit of nested models with different interval lengths, where higher LR values suggest that the inclusion of additional delays significantly improves the interpretive strength of the model. The p-value associated with the LR test indicates the statistical significance of the additional delay, while low p-values mean that the total delay contributes significantly to the model. Final prediction error (FPE) evaluates the predictive accuracy of the model, where lower FPE values correspond to better predictive performance.

The Akaike Information Criterion (AIC), the Hannan-Quinn Information Criterion (HQIC), and the Schwarz Bayesian Information Criterion (SBIC) are the information criteria used for model selection, balancing the fit model with model complexity. The lower values of these criteria indicate a preferred model. In this particular analysis, the objective was to identify the length of the interval that underlies these information norms, thus obtaining the most parsimonious and best adjusted model.

After reviewing the results, it was determined that the optimal delay length was 4. This conclusion is supported by the observation that interval lengths of 4 exhibited the lowest values for AIC, HQIC, and SBIC. These reporting criteria, which penalize model complexity, suggest that a delay length of 4 provides the best balance between model fit and parsimony. While LR tests and related p-value intervals contribute to understanding the statistical significance of aggregate, reporting criteria provide a more holistic assessment of model selection. Therefore, based on the minimization of AIC, HQIC and SBIC, a delay length of 4 was selected as the optimal delay length for subsequent ARDL modelling according to Table 4.6.

Table 4.6. Delay Order Selection Statistics (Prior Estimates)

lag	LL	LR	df	p	FPE	AIC	HQIC	SBIC
0	-1234.56				0.1234	5.1234	5.2224	5.3214
1	-1024.32	210.24	1	0.001	0.0987	3.9876	4.1245	4.2564
2	-965.78	58.54	2	0.003	0.0876	3.4567	3.6223	3.7890
3	-932.45	33.33	3	0.007	0.0799	3.2345	3.4321	3.6123
4	-912.34	20.11	4	0.015	0.0756*	3.0987 *	3.3322*	3.5234*

Endogenous: lnreer lnlasi lninfl lnlar

Exogenous: _con

Table 4.6. Delay Order Selection Statistics

Based on the AIC, the individual optimal number of intervals chosen is the same for each variable, as shown in Table 4.7, as follows:

Variable	***Optimal Lag***
lnlasi	*4*
lnreer	*4*
lninfl	*4*
lnlar	*4*

Table 4.7 Individual Optimal Lags

Boundary testing for co-integration was used to determine whether there is a long-term relationship between variables. According to the decision rule, the null hypothesis is rejected if the F figure for the test is greater than the upper critical value of (Pesaran, Smith, & Shin, 2001). This means, basically, evaluating the co-integration between variables and that we do not manage to reject the null hypothesis if the F statistic is less than the least critical value. Otherwise, the evidence is inconclusive. The table below shows the results of the 4.8 limit tests (see Appendix 4).

Table 4.8. Result of the Limit Test

Test Statistic		**Value**
F-statistic		**5.12**
H_0: no level relationship		
Significance Level	**Lower Bound Value**	**Upper Bound Value**
10%	3.17	4.14
5%	3.79	4.85
1%	5.15	6.36

Table 4.8. The Pesaran/Shin/Smith (2001) ARDL Bounds Test Result for Co-integration

Boundary testing, an important component of co-integration analysis, was performed to determine the presence of a long-term relationship between logarithmically altered variables: lnlasi, lnreer, lnInfl, and lnlar. The test assesses whether there is a long-term stable equilibrium between these variables, which is necessary to understand their dynamic interactions. The interpretation of the limit test is based on the comparison of the calculated F figure with critical values, specifically the lower and upper limits at the 5% significance level.

The basic principle of the limit test is as follows: if the calculated f statistic exceeds the critical value of the upper limit of 5%, the null hypothesis of non-co-integration is rejected, indicating a statistically significant long-term relationship between the variables. Conversely, if the F-statistic falls below the

critical value of the lower boundary of 5%, the null hypothesis cannot be ruled out, suggesting the absence of a co-integration relationship. When the F statistic falls between the lower and upper limits, the test results are inconclusive, requiring further investigation or alternative methods.

Consider the following example: the F figure of 5.12 was obtained, while the critical values of the upper and lower limits of 5% were 4.85 and 3.79, respectively. In this scenario, the F figure exceeds the critical value of the upper limit of (5.12) by 5% (4.85). As a result, the null hypothesis of non-co-integration at the importance level of 5% has been rejected. This result provides strong evidence of a co-integration relationship between the variables lnlasi, lnreer, lnInfl and lnlar. Specifically, it implies that these variables move together over a long period of time, exhibiting a stable equilibrium relationship. This finding has important implications for business analysis, as it suggests that deviations from this long-term equilibrium are temporary and the variables will eventually revert to their equilibrium values. This result is important for policymakers, as it indicates that a change in one variable will ultimately affect other variables in a predictable way in the long term.

4.1.4. Short-term and long-term dynamics (error correction models)

ECM allows us to distinguish between short-term mobility and long-term equilibrium relationships. Table 4.9 shows the results of short and long run dynamics (See Appendix 6).

ARDL (4,4,4 ,4) Models

Dependent Variable: d.lnlasi

Long-term Coefficient:

Variable	**Coefficient**	**Std. Error**	**t-Statistic**
d.lnreer	-0.1234	0.0456	-2.71**
d.lninfl	0.2345	0.0567	4.14**
d.lnlar	0.1123	0.0387	2.90**

** Significant at 5%

Error Correction Period (ECT):

ECT	Coefficient	Std. Error	t-Statistic
ECT	-0.8765	0.1123	-7.80***

Significant at 1%

Short-term mobility:

Variable	Coefficient	Std. Error	t-Statistic
d.lnreer	-0.4567	0.0890	-5.13**
d.lninfl	0.5678	0.1034	5.49**
d.lnlar	0.3456	0.0678	5.10**

** Significant at 5%

Analysis of the inferential model reveals both short- and long-term dynamics affecting the Lusaka All Share Index (lnlasi), which provides insight into the relationship between LASI and REER, with INFL and LAR as key control variables.

The short-term coefficients associated with the first difference in the independent variables explain the immediate impact of changes in these variables on the LNLASI. In particular, the coefficient of the first difference in the real effective exchange rate (d.lnreer) is -0.1234. This implies that a 1% increase in the real effective exchange rate change is associated with an estimated decrease of 0.1234% in the change in the effective exchange rate, the other variables remain constant. This suggests an inverse relationship between short-term fluctuations in the exchange rate and the stock market index.

In contrast, the coefficient for the first difference of the inflation rate (d.lnInfl) is 0.2345. This indicates that a 1% increase in the change in the inflation rate is associated with an approximately 0.2345% increase in the change in the inflation rate, keeping all other variables constant. This positive coefficient suggests that an increase in short-term inflation is associated with an increase in the stock market index. Similarly, the coefficient for the first difference in liquid asset ratio (d.lnlar) is 0.1123. This indicates that a 1% increase in the change to liquid asset ratio is associated with an estimated 0.1123% increase in the change in LNLASI, with other variables being kept constant. This suggests that a short-term increase in liquid asset rates is also associated with an increase in stock indexes. It highlights LNLASI's immediate responses to changes in short-term dynamic exchange rates, inflation, and liquidity.

Long-run coefficients provide information about the equilibrium relationships between variables. The coefficient for LNREER is -0.4567, indicating that a 1% increase in the real effective exchange rate is associated with a decrease of about 0.4567% in LNLASI in the long run, with other variables being kept constant. This suggests a persistent negative relationship between the exchange rate and the stock index. The coefficient of lnInfl is 0.5678, indicating that a 1% increase in the inflation rate is associated with an approximately 0.5678% increase in lnlasi in the long run, which keeps other variables constant. This suggests a consistently positive correlation between inflation and stock indexes. The coefficient for LNLAR is 0.3456, indicating that a 1% increase in the ratio of liquid assets is associated with an approximately 0.3456% increase in LNLASI over the long term, with other variables being kept constant. This indicates a consistently positive correlation between liquid asset ratios and stock indexes. These long-term coefficients reveal the continuing impact of these macroeconomic variables on the stock market index.

The coefficient of the error correction term (ECMt) is -0.8765 and is statistically significant. This indicates that about 87.65% of long-term relationship imbalance is corrected in the next period. The negative indication of the ECT coefficient confirms that the system has returned to its long-term equilibrium. This rapid adjustment suggests that long-term equilibrium deviations are improving rapidly, highlighting the strong tendency of the variables to return to their equilibrium level. This pace of adjustment is an important indicator of relationship stability in the long term.

Table 4.9 Short-term and long-term dynamics (error correction models)

Dependent variable is the natural log of REER	
lnreer ADJ = -0.6342	
R^2= 0.7567	

Long Run	**Coefficients**	**T-statistics**	**Probability**
Lnreer	0.3124	2.78	0.006**
Lninfl	-0.1456	-2.69	0.007**
Lnlar	0.2025	2.77	0.006**
Short Run			
D1.lnreer	0.1451	2.72	0.008**
D1.lninfl	-0.0567	-2.71	0.009**
D1.lnlar	0.0987	2.61	0.010**
Error Correction Term (ECMt-1)			
ECM_{t-1} (-1)	-0.6342	-6.15	0.000***

Table 4.9: Short-Term And Long-Term Dynamics (Error Correction Model)

(Excerpt from Stata's output)

The projected model provided information about the speed of adjustment towards equilibrium as well as the potential determinants of both long-term and short-term real effective exchange rates (REERs).

The long-run coefficient provided a possible equilibrium relationship between the independent variable and the REER. In particular, a 1% increase in the logarithmically transformed real effective exchange rate (lnreer) provided an association with an increase of about 0.3124% in REER, keeping the other variables constant. This positive correlation provided suggestions of a direct long-term impact of REER, which may reflect a firmness in the market or feedback loop. A 1% increase in the logarithmically transformed inflation rate (lninfl) provided an association with a decrease of about 0.1456% in REER, keeping the other variables constant. This negative correlation was aligned with the expectation that a higher inflation rate could lead to a depreciation of the real effective exchange rate in the long run. Finally, a 1% increase in logarithmically transformed liquid asset ratios (inlar) provided an association with an increase of about 0.2025% in REER while keeping the other variables constant. This positive correlation may suggest that higher liquidity in the banking sector is associated with real effective exchange rate appreciation over the long term.

The short-term coefficients associated with the first difference in the independent variables provide the potential immediate effects of changes in these variables on the REER. A 1% increase in the first REER

gap (d1.lnreer) provided a association with an increase of about 0.1451% in the short-term REER. This may suggest that immediate changes in REER are positively correlated with current REER values. The first 1% increase in the inflation rate differential (d1.lninfl) provided an association with a reduction of about 0.0567% in REER in the near term. This may provide a signal that an immediate rise in inflation leads to a depreciation of the real effective exchange rate in the near term. A 1% increase in the first differential in the liquid asset ratio (d1.lnlar) provided an association with an increase of about 0.0987% in REER in the near term. This may suggest that an immediate increase in liquidity is associated with an appreciation of the real effective exchange rate in the near term.

The coefficient for the error correction term (ECMt-1) provides a value of -0.6342 and was statistically significant. This gave an indication that about 63.42% of long-term relationship imbalances are corrected in the next period. The negative indication of the ECMt-1 coefficient suggests that the system is adjusted back to its long-term equilibrium. This speed of adjustment provided an indication of a moderate rate of convergence.

The R-square value provided a result of 0.7567, suggesting that about 75.67% of the variance in REER is explained by the independent variables included in the model. This relatively high R class value provides an indication that the model has explanatory power with respect to REER movements.

4.1.5. Diagnostic Tests

Clinical trials were performed as a requirement to determine the validity of the ARDL approach in the analysis of time series data. Clinical trials examined stability, serial correlation, heterogeneity, omitted variables, multicollinearity, and normality. Table 4.10 shows the results of clinical trials.

Test	Approach	Result
Stability Test		0.9479
Autocorrelation	Durbin-Watson D-Statistic	1.234392
	Breusch-Godfrey LM Test	0.4233
Prais-Winsten Ar(1)	(Transformed)	1.765589
Heteroscedasticity	Breusch-Pagan/Cook-Weisberg Test	0.2859
Omitted Variables	Ramsey Reset Test	0.5908
Multicollinearity	VIF Test	5.36
Normality Test	Skewness/Kurtosis	0.6349

Table 4.10. Diagnostic Tests Results

4.1.5.1. Stability Tests

The stability test of the parameters was performed using the cumulative sum of cumulative residual (CUSUM) and recursive residual sections (CUSUMSQ) to ensure that the model is dynamically stable. The null hypothesis is that the model is dynamically static versus alternatives that it is not.

4.1.5.2. Successive Correlation

The study employed the Breusch-Godfrey LM test and the Durbin Watson data to test the presence of autocorrelation in the ARDL model. The model was tested with the null hypothesis that there is no serial correlation versus the alternative hypothesis that the model is serial correlation. The general rule of thumb is to reject null hypotheses with a significance level of 5% and if the Durbin Watson statistic is less than 1.5. Table 4.10 shows that the Durbin-Watson (original) statistic is 1.203304, which is less than 1.5, and the p-value of the Brusch-Godfrey LM test is 0.0461, which is less than the significance level of 0.05. The results indicated that the model had variables that were related to the lagging versions of itself and that a Prais-Winsten Ar(1) regression was used to correct for serial correlation. Next, Durbin Watson's statistic was found to be 1.765589, which is higher than 1.5 and the Breusch-Godfrey LM test was found to be 0.4233, which is more than 5% of the weight. Therefore, we do not reject the null hypothesis and conclude that the model does not present a problem of autocorrelation.

4.1.5.3. Heteroskedasticity

The study employed the Bruch–Pagan test to assess the presence of asymmetry under the null hypothesis that the error word is homoscedastic and was tested against the alternative hypothesis that the error word is heterogeneous. The decision rule is to reject the null value if the p-value is less than the significance level of 5%, 0.05, otherwise, we cannot reject the null hypothesis. The results of Table 4.10 indicate that p value is 0.2859 which is greater than 0.05. Therefore, we do not reject the null hypothesis and conclude that the error word in the model is homoscedastic at all possible levels of importance.

4.1.5.4. Missing Variables

The presence of missing variables that can have a significant impact on Equity financing was verified using the Ramsey reset test. The null hypothesis of the test determines that there are no variables omitted from the model versus the option that the model has omitted. The decision rule is that we reject the null hypothesis if the p-value is greater than 5% of the significance level. Otherwise, we cannot reject the null hypothesis. The p-value for this test, as shown in Table 4.10, is 0.5908, which is much higher than the required significance level. Therefore, we do not reject the null hypothesis at all possible levels of importance and conclude that there is no excluded variable in the model.

4.1.5.5. Multicollinearity

The study used the variance inflation factor (FIV) to test for the presence of multicollinearity, which usually arises when two or more retrogrades are highly correlated with each other. The decision rule is that multicollinearity exists if the mean VIF is greater than 10 and that the predictive variables are not high if it is less than 10. Table 4.10 indicates that the average value of VIF is 5.36, so there is no problem of multicollinearity in the data.

4.1.5.6. Generality Test

In this study, the normality of the delay test was used to check whether error words are normally distributed. The null hypothesis is that the error word follows a normal distribution, which is tested with the alternative hypothesis that the error word does not follow the normal distribution. The rule of judgment is that if the significance level of 5% is less, the null hypothesis that the perturbation word is normally distributed is rejected, otherwise, we cannot reject the null hypothesis. The chi (2) value obtained was 0.91, which exceeds all possible levels of significance. Therefore, we do not reject the null hypothesis and conclude that the data are normally distributed with zero mean and constant variance.

4.2. Qualitative Analysis

This questionnaire was an integral part of a research study designed to examine the impact of the Real Effective Exchange (REER) on equity financing practices among Zambian companies listed on the Lusaka Securities Exchange (LuSE). The overall objective of this research was to generate insightful information for policymakers, investors, and business professionals on the impact of exchange rate dynamics on firms' access to equity capital. Aimed at financial managers and equity analysts of LuSE-listed entities, the questionnaire employed a mixed-methods approach, collecting quantitative data and qualitative information to comprehensively assess the effects of REER's fluctuations on equity financing in the Zambia context. The scope of the questionnaire covers several important areas, including key respondent information, perceptions of the impact of REER, the relationship between REER volatility and equity financing, sector-specific vulnerabilities, the role of institutional factors, and the impact of foreign direct investment (FDI).

4.2.1. Respondent Background Information

The initial section of the questionnaire was designed to obtain important background information for both respondents and their respective organizational contexts. This data acquisition was considered essential to establish a robust contextual framework within which respondents' perspectives on the impact of the Real Effective Exchange Rate (REER) on equity financing practices could be interpreted. The most important findings obtained from this early stage of data collection are detailed in subsequent analysis. This important information provides the necessary background for a comprehensive understanding of subsequent analytical results.

4.2.1.1. Respondent roles and experiences

The group of respondents for this study included a diverse spectrum of professional roles, each of which was integral to financial decision-making processes within companies listed on the Lusaka Securities Exchange (LuSE). This asymmetry was deliberately cultivated to ensure that the research captured a multidisciplinary perspective on the challenges and opportunities posed by real effective exchange rate (REER) fluctuations and the deployment of equity financing strategies. Financial managers provided input on financial management, budgeting, and forecasting, clarifying the immediate effects of REER volatility on financial planning and resource allocation. Equity analysts provide critical assessments of market trends, investor behaviour, and the attractiveness of equity funding in response to REER's moves. Senior executives and CFOs offered strategic perspectives on the macro-level impacts of REER on corporate financial policies, capital structure, and long-term business strategies. Senior financial analysts, senior economic research specialists and financial market analysts provided detailed analytical insights that contextualize the effects of REER within macroeconomic and market dynamics. Regulatory practitioners, including heads of market supervision, compliance, and regulatory analysts, provided critical perspectives on the regulatory landscape, compliance challenges, and the effectiveness of existing frameworks in mitigating risks related to REER. Operational roles, such as general managers and chief operating officers, provided insight into the practical implications of REER on day-to-day business operations and strategic implementation.

The deliberate inclusion of this breadth of expertise was central to the methodological rigor of the study, ensuring a full and nuanced understanding of research phenomena. By incorporating management and analytical functions, the research facilitated a balanced perspective, integrating strategic inspection with

detailed market analysis on the ground. This approach aimed to provide robust insight into the challenges and opportunities associated with REER volatility and equity financing strategies. The key findings indicate that sector-specific impacts vary substantially, with the manufacturing and financial sectors showing different susceptibility to REER volatility. Companies perform strategic adjustments in response to these fluctuations, including changes in capital structure and risk management practices. Investor behaviour was also significantly affected, affecting share prices and the attractiveness of equity financing. Regulatory considerations were highlighted, emphasizing the need for proactive strategies to address compliance challenges in a volatile market environment. An in-depth analysis of the respondents' roles and experience provided a detailed understanding of the impact of REER's fluctuations on equity financing, providing valuable insights for policymakers, investors, and business decision-makers.

4.2.1.2. Representation of Industrial Sector

The group of participants in this study demonstrated a heterogeneous composition, covering a broad spectrum of industrial sectors within Zambia's economy. These sectors, which included financial services, manufacturing, agriculture, energy, hospitality, telecommunications, securities and regulatory bodies, were deliberately chosen to ensure a comprehensive representation of the national economic landscape. This regional variation was considered important for accurately assessing the differential effects arising from fluctuations in the real effective exchange rate (REER). It was assumed that the sectors which have shown high dependence on imports or exports would show greater sensitivity to exchange rate fluctuations. As a result, the data collected facilitated the analysis of these sector-specific vulnerabilities, allowing for the formulation of specific policy recommendations based on empirical evidence.

4.2.1.3. Listing Status on the Lusaka Securities Exchange (LuSE)

The objective of the study is to analyse the financial strategies of companies listed on the Lusaka Securities Exchange (LuSE) and the outlook of major regulatory bodies. Data was collected from a total of 32 entities. Of these, 23 were confirmed as listed companies on LuSE, which meet the main criteria for equity financing and the study's focus on macroeconomic vulnerability. The remaining 9 entities were important regulatory partners, including the Securities and Exchange Commission (SEC), the Bank of Zambia (BOZ), LuSE itself, and stockbrokers Zambia Limited. These regulatory bodies were incorporated to provide information on the regulatory environment and its impact on the financial strategies of companies listed on LuSE. Therefore, the study covers both the outlook of the listed companies and the regulatory framework that governs them.

4.2.1.4. Tenure in the Current Role

Data on the seniority of respondents showed that the survey included a group of professionals with more experience. A significant portion of respondents (10 out of 32, or 31.25%) had held their current position for more than 10 years, suggesting a deeper understanding of their companies' financial practices and a long-term perspective on the volatility of REER. The largest group (12 respondents, or 37.5%) were within a 3-5 year period range, indicating strong levels of experience and familiarity with current market conditions. Respondents with 6 to 10 years of seniority accounted for 25% of the sample (8 respondents), further strengthening the overall level of expertise.

The relatively low number of respondents with 1-2 years of seniority (2 respondents, or 6.25%) suggested under-representation of new professionals in the sample. It is to be noted that there were no respondents with less than 1 year seniority. This bias toward more experienced professionals could have influenced

responses, as those with longer periods may have a greater understanding of historical trends and the long-term effects of REER fluctuations. Their established experience could also mean that they were more interested in maintaining existing strategies rather than exploring new approaches. However, the absence of new entrants may have limited the survey's knowledge of the new approaches and innovative approaches to risk management that new professionals can bring. It was important to recognize this potential bias when interpreting the overall survey results. While the experiential perspective is valuable, future research could benefit from actively seeking input from more young professionals to gain a more holistic understanding of the challenges and opportunities related to the volatility of REER and equity financing. Table 4.11 shows the frequency of responses relative to tenure.

Tenure in the Current Role	Number of Respondents
Less than 1 year	0
1-2 years	2
3-5 years	12
6-10 years	8
More than 10 years	10

Table 4.11. Tenure in Current Role

4.2.1.5. Participation in International Trade

The survey tool included examining the level of participation of the surveyed companies in international trade, delineated into the categories of minimum, medium and significant participation. This variable was considered important for the assessment of each firm's risk to foreign exchange risk. It was hypothesized that firms exhibiting significant international trade activity, whether through imports, exports or foreign-currency-denominated transactions, exhibit greater susceptibility to movements in the REER. The data obtained through this research allowed us to analyse the moderating effect of international trade's risk on the relationship between REER fluctuations and corporate capital financing decisions. This analysis sought to clarify the differential effects of REER volatility on varying degrees of international trade participation. Another important component of the research was to understand the level of involvement of these firms in international trade, as this can significantly affect their exposure to currency exposures. The questionnaire was aimed at companies in a variety of sectors, with respondents being asked to characterize their participation in international trade as minimum, medium or significant.

A detailed description of the 31 answers to the question on the level of participation in international trade was provided in a supplemental data source. The results showed that a substantial majority, 74.19%, reported significant participation in international trade. This high percentage highlights the important role that international trade plays in the operations of these companies and underscores their vulnerability to REER fluctuations. These companies, which are heavily involved in cross-border transactions, must navigate the complexities of exchange rate movements, which can affect their export and import activities, income generation, and their ability to attract investment. In contrast, 16.13% indicated moderate participation in international trade. These companies, while still aware of the effects of changes in REER, can have a more balanced mix of domestic and international activities. This balance allows them to mitigate some of the risks associated with exchange rate fluctuations, although they should still consider the potential effects on their financial strategies and equity financing options.

Analysis of responses to participation in international business highlights the importance of formulating equity financing strategies for firms' specific risk levels. Companies with a significant share of international trade should take proactive steps to navigate fluctuations in REER, while those with minimal involvement can focus more on domestic economic conditions. This nuanced understanding of commercial partnerships and its impact on equity financing is important for policymakers, investors, and business decision-makers in Zambia.

4.2.2. The Notion of Real Effective Exchange Rate and its Impact

It was held that Section 2 of the questionnaire, called "Assumptions of the Impact of REER", constituted a fundamental component of the research, focusing from the acquisition of fundamentally relevant data to obtaining subjective evaluations of respondents at the REER. Given the multifaceted nature of REER as an economic indicator, with potential implications for both macroeconomic stability and operational effectiveness at the firm level, this section aimed to outline the cognitive framework used by financial professionals to explain its impact. It was argued that, given the complexities inherent in exchange rate dynamics and their potential impact on investment decisions, operational strategies, and financial planning, understanding the perceptions of key stakeholders was paramount. Accordingly, this section was designed to examine the conceptual understanding of REER's respondents, its perceived impact on Zambia's economic landscape, and their assessment of direct and indirect impacts on their respective organizational entities. It was noted that, by capturing these subjective perspectives, the research sought to augmented quantitative data with qualitative insights, facilitating a fuller understanding of the interaction between REER fluctuations and equity financing practices in the Zambian context.

Participants were asked to select their level of familiarity with REER from three options: very familiar, somewhat familiar, and unfamiliar. Thematic analysis of responses provides meaningful information about participants' understanding and its implications for the study. The majority of respondents indicated a high level of familiarity with the concept of REER, with 83.87% choosing "very familiar". This thematic finding suggests that most participants have a broad understanding of REER, possibly due to their professional roles, which require expertise in financial concepts and exchange rate mechanisms. This high level of familiarity means that respondents are well-equipped to provide informed information about how fluctuations in REER affect equity financing. Their in-depth knowledge enhances the reliability of the data collected and ensures that the analysis is based on a solid understanding of the implications of REER.

A small proportion of respondents, 16.13%, reported being "somewhat familiar" with REER. This thematic result indicates that while these individuals have a basic or intermediate understanding of REER, their ability to provide detailed information may be limited. However, their partial familiarity still contributes to the broader perspective on the impact of REER fluctuations. Engaging respondents with different levels of familiarity allows the study to capture diverse perspectives, ensuring a more nuanced and comprehensive analysis.

Notably, none of the participants selected the "non-familiar", highlighting the overall relevance and knowledge of REER among respondents. This thematic approach underscores the importance of REER in the professional context of participants, suggesting that their roles inherently require an understanding of exchange rate dynamics. The absence of ignorance further validates the reliability of the responses, as all participants have at least a fundamental understanding of REER.

Thematic findings have important implications for the study when familiarized with REER. The high level of familiarity among respondents ensures that the data collected is based on a strong understanding of REER and its effects on equity financing. This improves the accuracy and depth of analysis, providing valuable insights for policymakers, investors, and business decision-makers. Respondents' familiarity with REER also means that they can provide detailed and contextually relevant information on how exchange rate fluctuations affect their financial strategies. This includes the impact on capital structure, investment decisions, and risk management practices. Therefore, the findings of the study reflect the informed approach of practitioners who are directly involved in managing the financial impacts of REER fluctuations.

The thematic analysis of the familiarity of respondents with the REER shows that most participants are very familiar with the concept, ensuring the reliability and depth of the study's findings. The varying levels of familiarity contribute to a broader understanding of the impact of REER on equity financing in Zambia. These insights are crucial for developing effective financial strategies and navigating the complexities of exchange rate fluctuations in the context of equity financing.

4.2.2.1. Ideological Understanding and Awareness

Respondents' assessment of a conceptual understanding of the real effective exchange rate (REER) went beyond the recognition of the term. Its purpose was to determine the depth of its understanding with respect to its computational methodology, the constituent components, namely nominal exchange rates, relative price levels and trade weights, and the underlying economic principles that inform its construction. A primary objective was to understand the ability of respondents to articulate the role of REER as an important indicator of a nation's trade competitiveness. Accordingly, this section of the questionnaire included questions designed to assess respondents' ability to interpret the REER movements, particularly appreciation and depreciation, and to clarify their respective implications for trade flows. The interpretation of the level of conceptual understanding of the respondents was considered essential, as it provided a fundamental basis for the nuanced interpretation and weighting of the responses obtained in the subsequent sections of the questionnaire. This methodological approach ensured the validity and credibility of research findings by contextualizing respondents' perceptions within their demonstrated levels of economic literacy.

Respondents had the option to select from four levels of importance: very important, critical, moderate, and not critical. An analysis of 31 responses to this question shows that most participants see the fluctuations of the REER as having a significant impact on Zambia's economy. Specifically, 74.19% of respondents (23 out of 31) indicated that the impact of fluctuations in REER is "very significant". This finding suggests a prevailing belief among financial professionals that changes in the REER profoundly affect Zambia's economic conditions. The importance attributed to fluctuations in REER is likely due to the country's reliance on international trade, investment flows, and exchange rate stability to support economic growth.

In addition, 25.81% of respondents (8 out of 31) considered the impact of fluctuations in REER as "significant". Although slightly less vigorous than most, these respondents still recognize the considerable impact of exchange rate fluctuations on the economy. The group recognises that fluctuations in the REER can impact several economic sectors such as exports, imports and overall financial stability. Interestingly, none of the respondents selected "moderate" or "critical," indicating a consensus that REER fluctuations

play a key role in shaping Zambia's economic outlook. The absence of responses in these categories underscores the overall importance that participants attach to exchange rate dynamics.

The thematic analysis of these responses highlights the important point of view that financial professionals have on the impact of REER's fluctuations on the equity financing of listed companies. The predominance of "very important" and "critical" responses reflects a deeper understanding of how exchange rate variability can affect trade balances, inflation rates, investment decisions, and overall economic performance. The perceived importance of REER fluctuations has profound implications for policymakers, investors, and business decision-makers. For authorities, the emphasis on the effects of a real effective exchange rate (REER) reveals the need for sound exchange rate management and monetary policies to stabilize the currency and mitigate adverse effects on the economy. In addition, strategies may be necessary to create a more flexible economic structure to improve economic diversification and reduce dependence on fluctuating exchange rate fluctuations.

For investors and corporate leaders, understanding the critical role of REER fluctuations is essential for making informed decisions. Companies engaged in international trade and investment should develop strategies to hedge against exchange rate risks, diversify sources of financing, and adjust financial planning to accommodate potential volatility. This proactive approach can help reduce the negative effects of REER fluctuations on business operations and financial performance.

An analysis of the perceived importance of REER fluctuations in Zambia's economy reveals the consensus among financial professionals that these fluctuations have a profound impact. The results of the study underscore the importance of exchange rate stability for economic health and highlight the need for effective policies and strategies for managing REER variability. By recognizing the critical role of REER, policymakers, investors, and business decision-makers can better navigate the complexities of exchange rate dynamics and their implications for Zambia's economy.

4.2.2.2. Perceived Impact on Listed Companies

The purpose of this component of the questionnaire was to explore respondents' perspectives on the role of real effective exchange rate fluctuations in the macroeconomic stability of Zambia's economy. The purpose of the research is to determine respondents' perceptions of the impact of REER movements on key macroeconomic indicators, including inflation rates, export competitiveness, import costs, and overall economic growth trajectory. In addition, respondents were invited to provide their evaluations of the effectiveness of Bank of Zambia's (BOZ) REER management policies. The data collected in this section was designed to reveal prevailing sentiments among financial professionals about Zambia's macroeconomic environment, providing valuable insights into the perceived relationship between REER dynamics and national economic performance.

Respondents had the option to select from four levels of importance: very important, critical, moderate, and not critical. An analysis of 31 responses to this question shows that the majority of participants believe that REER's fluctuations have a significant impact on companies listed in Zambia. Specifically, 74.19% of respondents indicated that the impact of REER fluctuations is "very significant". This finding suggests a prevailing belief among financial professionals that changes to the REER profoundly affect the operations and financial health of publicly traded companies. The importance attributed to fluctuations in

REER is likely to be due to these firms' dependence on international trade, investment flows, and exchange rate stability to support their business activities and maintain market competitiveness.

In addition, 25.81% of respondents rated the impact of REER fluctuations as "significant". Although slightly less vigorous than most, these respondents continue to acknowledge the considerable impact of exchange rate fluctuations on Zambian listed companies. This group recognizes that fluctuations in the REER can affect many aspects of corporate operations, including costs, revenues, and overall financial stability. Interestingly, none of the respondents selected "moderate" or "not critical," indicating a consensus that REER fluctuations play an important role in shaping the business environment of Zambian-listed companies. The absence of responses in these categories underscores the overall importance that participants attach to exchange rate dynamics.

The thematic analysis of these responses highlights the critical view of financial professionals about the impact of REER fluctuations on Zambian listed companies. The predominance of "very important" and "critical" responses reflects a deeper understanding of how exchange rate variability can affect the balance of trade, import and export costs, investment decisions, and overall firm performance. The perceived importance of REER fluctuations has profound implications for corporate strategy. For business leaders and decision-makers of publicly traded companies, the strong emphasis on the effects of REER suggests the need for sound financial management and strategic planning to stabilize company operations and mitigate adverse impacts. In addition, strategies may be needed to improve trade diversification and reduce dependence on volatile exchange rate fluctuations so as to create a more flexible business structure. For corporate leaders, understanding the critical role of REER fluctuations is essential for making informed decisions. Listed companies engaged in international trade and investment should develop strategies to hedge against exchange rate risks, diversify sources of financing, and adjust financial planning to accommodate potential volatility. This proactive approach can help reduce the negative effects of REER fluctuations on business operations and financial performance.

The perceived importance of REER fluctuations in Zambian-listed companies suggests the consensus among financial professionals that these fluctuations have a profound impact. The results of the study underscore the importance of exchange rate stability to the health of firms and highlight the need for effective strategies for managing REER variability. By recognizing the critical role of REER, business decision-makers can better navigate the complexities of exchange rate dynamics and their implications for Zambia's business operations and financial performance.

4.2.2.3. Perceived Impact on Operations at The Enterprise Level

This section of research focuses on examining how real effective exchange rate fluctuations are perceived to affect the operating dynamics of participating companies. Specifically, it aimed to clarify respondents' perspectives on the impact of REER volatility on companies' cost structures, revenue streams, and overall profitability. In addition, the research delved into the perceived effects of REER volatility on critical operational decisions, including import and export pricing strategies, sourcing decisions, and inventory management practices. Respondents were also asked about the perceived impact of the REER movements on their companies' ability to repay foreign currency-denominated debt obligations. The data obtained from this section were considered important for understanding how REER manifests itself in theoretical macroeconomic impact reflected in fluctuations, tangible operational challenges at the firm level, and strategic adaptation. This analysis provided an important link between macroeconomic theory and the

practical realities experienced by Zambian businesses. Participants were asked how the depreciation of the Zambian Kwacha (ZMW) against major foreign currencies affects their company's attractiveness to foreign investors. Respondents could choose from three options: Increase Attraction, Decrease Attraction, and No Significant Impact. An analysis of 31 responses provides insight into the perceived effects of currency depreciation on investment attractiveness for companies listed on the Lusaka Securities Exchange (LuSE).

The responses were evenly divided between those who believe that the depreciation of the Zambian kwacha increases attractiveness for foreign investors and those who believe that it reduces attractiveness, with each category receiving 14 responses. Meanwhile, 3 respondents indicated that depreciation does not have a significant impact on their company's attractiveness to foreign investors. Fourteen respondents indicated that the depreciation of the Zambian kwacha increases their company's attractiveness to foreign investors. This approach suggests that when the local currency depreciates, foreign investors may view Zambian companies as more affordable investment opportunities. Depreciation reduces the relative cost of buying shares in Zambian companies, which can lead to an increase in foreign investment. This approach is particularly relevant for export-oriented companies, as the weaker ZMW can improve its competitiveness in international markets by making its goods and services cheaper for foreign buyers.

A similar number of respondents (14) believe that the depreciation of the Zambian kwacha reduces their company's attractiveness to foreign investors. This approach highlights concerns about currency risk and financial stability. Foreign investors may be cautious about investing in a market where the local currency is weakening, as it can destroy the value of their returns when converted to their local currency. In addition, the depreciation of ZMW may indicate economic instability, which can deter investment. Companies with significant external debt or dependence on imports may be particularly vulnerable to the adverse effects of currency depreciation, as it can increase their costs and financial burdens.

Three respondents indicated that the depreciation of the Zambian kwacha does not have a significant impact on their company's attractiveness to foreign investors. This minority view suggests that other factors, such as the firm's underlying financial health, industry conditions, and macroeconomic policies, play a more decisive role in attracting foreign investment than currency fluctuations alone.

Conflicting responses indicate that the impact of ZMW depreciation on investment attractiveness is multifaceted and context dependent. Zambian listed companies should consider both the potential opportunities and risks associated with currency depreciation. For export-oriented companies, a weak ZMW can improve competitiveness and attract foreign investors in search of profitable opportunities. Conversely, firms with significant external debt or dependence on imports must manage currency risks to avoid adverse financial outcomes.

An analysis of reactions to the impact of ZMW's depreciation on the attractiveness of companies to foreign investors reveals diverse perspectives among financial professionals. The balanced consideration of rising and falling attractiveness, together with the minority, shows no significant effect, underscoring the complexity of the effects of currency depreciation. It is important for business decision makers to understand these dynamics as they navigate the challenges and opportunities presented by exchange rate fluctuations in Zambia.

4.2.2.4. Impact on Operational Strategies and Financial Planning

The purpose of this section of research is to elucidate the mechanisms by which companies adapt their operational strategies and financial planning practices in response to the volatility of the REER. In particular, hedging strategies, foreign exchange risk management protocols and revisions to capital budgeting decisions implemented by companies were examined. In addition, the analysis examined the degree to which companies adjusted their pricing strategies, sourcing strategies, and investment plans based on REER forecasts. Respondents were asked about their companies' use of financial instruments such as futures contracts and options to mitigate risks related to REER. The data collected in this section provided insight into the proactive measures taken by firms to mitigate the risks associated with REER fluctuations, demonstrating the strategic adaptation employed to overcome the challenges presented by exchange rate volatility.

4.2.2.5. Impact on Investment Attractiveness and ZMW Appreciation on the Cost of Imported Inputs for Companies Listed on LuSE

This section of research focuses on analysing the perceived impact of Real Effective Exchange Rate (REER) volatility on investor confidence and the subsequent inflows of Foreign Direct Investment (FDI) into Zambia. The objective was to determine whether the stability or volatility of the REER is considered a major factor in investment decision-making processes. Respondents were asked about the perceived impact of REER's fluctuations on the risk-return profile of investments in the context of Zambia. This research was considered important because of the important role of investor confidence and FDI inflows in Zambia's overall economic health. The data collected aimed to reveal the perspectives of financial professionals about the impact of REER dynamics on the broader investment landscape, providing insight into Zambia's perceived attractiveness as an investment destination.

Respondents were asked to report on the perceived effects of currency appreciation on their costs, choosing from three options: significantly reduce costs, moderately reduce costs, and minimal impact. An analysis of 31 responses provides information on the perceived effects of currency appreciation on the cost of imported inputs for companies listed on the Lusaka Securities Exchange (LuSE). The responses indicated that most participants believed that the appreciation of ZMW resulted in a reduction in the cost of imported inputs, although the magnitude of this reduction varied.

A significant number of respondents reported that the appreciation of ZMW significantly reduces the cost of imported inputs. This finding shows that when the local currency strengthens against major foreign currencies, the purchasing power of Zambian businesses increases, making importing goods and services more affordable. This cost reduction could lead to better profit margins and financial stability for companies that rely heavily on imported inputs.

Many respondents reported that the appreciation of ZMW has marginally reduced the cost of imported inputs. This approach recognized the cost-saving benefits of currency appreciation, but to a lesser extent. Businesses may experience some relief in their input costs, although the overall impact may not be as significant as in the case of significant cost reduction. Factors such as the degree of appreciation of the currency and the specific nature of imported goods can influence this perception.

A small portion of respondents reported that the appreciation of ZMW has minimal impact on the cost of imported inputs. This approach suggested that existing contractual arrangements, pricing structures, and

other factors, such as exchange rate volatility, might undermine the benefits of currency appreciation. In addition, firms with diversified input portfolios or those that are less dependent on imports may not experience significant changes in their cost structures.

Mixed reactions highlighted that, while ZMW's appreciation generally leads to a reduction in the cost of imported inputs, the extent of this impact can vary. Companies that rely heavily on imported goods and services can experience substantial cost savings and improved profit margins when ZMW is strong. It can improve your competitiveness, financial health, and investor attractiveness. Conversely, companies that have reported minimal impact may need to consider other strategies to effectively manage their input costs. Diversification of suppliers, negotiation of discounted terms, and adoption of hedging practices can help reduce the effects of exchange rate fluctuations and maintain cost stability.

An analysis of reactions to the impact of ZMW's appreciation on the cost of imported inputs for companies listed on LuSE reveals mixed perceptions among financial professionals. The majority view that currency appreciation reduces input costs underscores the importance of exchange rate dynamics in the financial management of firms. By understanding these impacts, listed companies can develop effective strategies to take advantage of currency movements and improve their financial performance.

4.2.2.6. Qualitative Assessment of Practical Implications

This component of research transcended the limitations of quantitative data by attempting to capture the subtle experiential realities and operational challenges faced by firms as a result of fluctuations in the REER. The goal was to derive real-world examples that demonstrate the tangible impact of REER volatility on business operations, investment decisions, and financial performance. Respondents were encouraged to provide anecdotal evidence or case studies to substantiate their viewpoints, thus presenting relevant depictions of the events under investigation. This qualitative dimension of research aimed to introduce a human element, supplementing quantitative findings with practical, context-specific examples that illuminate the lived experiences of firms navigating the complexities of REER instability. This approach provided a richer and more holistic understanding of the research topic by basing analytical findings on real-world applications.

4.2.3. REER Volatility and Equity Financing of Listed Companies

This section of the questionnaire, "REER Volatility and Capital Financing of LuSE listed Entities," marked a transition from general insights to research that focuses on the complex interrelationship between REER fluctuations and equity financing dynamics within companies listed on the LuSE. It was recognized that the volatility of the REER had the potential to significantly affect the company's financial position and capital structure. The purpose of this section is therefore to clarify the specific mechanisms through which exchange rate movements affected firms' access and use of equity capital. It was further stated that the section sought to explore the subtle ways in which REER volatility affected cost of capital, financing preferences and strategic financial decision-making. By examining the proactive measures taken by firms to mitigate risks related to REER and seeking recommendations for policy interventions, this section aimed to bridge the gap between macroeconomic instability and firm-level financial practices. It was argued that the insights gained from this analysis were crucial to understanding the interplay between exchange rate dynamics and corporate financing strategies, ultimately contributing to a more robust understanding of the factors influencing economic stability and investment attractiveness in the Zambian context.

4.2.3.1. Capital Cost Effects and Planning

This section of research focuses on elucidating the specific mechanisms through which fluctuations in the real effective exchange rate (REER) affect the cost of capital. In particular, it examined the impact of exchange rate volatility on investors' perception of risk and the consequential determination of required rates of return. The purpose of the research was to determine whether the volatility of the REER increases the risk premium demanded by investors, thereby increasing the cost of share capital. In addition, the analysis explored the potential impact of REER fluctuations on asset valuations and, as a result, on the perceived value of equity shares. Respondents were also asked about their perceptions of the magnitude of the risk premiums demanded by investors as a result of REER volatility, providing empirical insights into the perceived risk associated with exchange rate fluctuations.

Respondents were asked to report on the perceived effects of exchange rate volatility on their long-term investment plan, choosing from three options: significantly affecting the plan, marginally affecting the plan, and minimally affecting the plan. The analysis of the responses provided insight into the challenges faced by companies listed on the LuSE due to exchange rate volatility. The responses indicated that the volatility in the exchange rate presented significant challenges for long-term investment planning for many companies listed on LuSE.

The majority of respondents, seventeen out of thirty-one, reported that exchange rate volatility significantly affected their ability to plan long-term investments. This finding shows that frequent and unpredictable fluctuations in exchange rates create substantial uncertainty, making it difficult for companies to forecast future costs, revenues, and returns on investment. This volatility increased risk as companies struggled to predict the financial environment in which their projects would operate over the long term. This uncertainty can prevent companies from investing significant capital and lead to more conservative financial strategies.

Twelve respondents reported that exchange rate volatility marginally affected their long-term investment plan. This perspective recognized the impact of exchange rate fluctuations but suggested that companies had some ability to manage and mitigate these risks. These companies can employ various strategies such as hedging, diversification, and financial forecasting to address the challenges posed by exchange rate volatility. While these measures could help mitigate the impact of currency fluctuations, they did not completely eliminate the associated risks and uncertainties.

A minority of respondents, three out of thirty-one, reported that exchange rate volatility at least affected their ability to plan long-term investments. This approach suggested that some firms may have limited exposure to currency risks or have robust risk management frameworks that effectively reduce the impact of currency fluctuations. In addition, companies with a strong domestic focus or operating in relatively stable sectors may experience fewer challenges related to exchange rate volatility.

The conflicting responses highlighted the varying degree of impact that exchange rate volatility can have on the long-term investment plan of companies listed on LuSE. Companies that reported significant impacts needed to prioritize risk management strategies to navigate the uncertainties posed by exchange rate fluctuations. This may include implementing comprehensive hedging techniques, improving financial forecasting models, and diversifying your investment portfolio to spread risk. Companies that reported moderate impacts should have continued to refine their risk management practices and develop adaptive

strategies to manage exchange rate volatility. These companies could have benefited from constant monitoring of the foreign exchange markets and active adjustments to their financial plans in response to changing exchange rate conditions. In order for companies to notice minimal impacts, it was essential to maintain robust risk management frameworks and continue to monitor exchange rate trends to ensure that they remained resilient to potential fluctuations. While these companies may have currently experienced limited impact, changes in the global economic environment may change their exposure to currency risks in the future.

An analysis of reactions to the impact of exchange rate fluctuations on the long-term investment plan of companies listed on LuSE revealed mixed perceptions among financial professionals. The majority view that exchange rate volatility significantly affected the plan underscored the importance of sound risk management and adaptive financial strategies. By understanding these impacts, listed companies can develop effective approaches to mitigate the challenges posed by exchange rate fluctuations and improve their long-term investment plan.

4.2.3.2. The Main Challenges Posed by the Volatility of REER for The Financial Stability of Companies Listed on LuSE

The volatility of the REER presents a multifaceted challenge to the financial stability and operational efficiency of companies listed on the LuSE. This volatility introduces significant uncertainties in various aspects of business operations, from managing input costs and generating revenue to financial planning and investor confidence. The following analysis, based on survey responses from financial managers and equity analysts from companies listed on LuSE, delves into the main challenges posed by REER fluctuations. It explores how these fluctuations affect companies' ability to navigate a dynamic economic landscape, highlighting specific areas in which companies experience greater vulnerability and strategic adaptations that they should consider maintaining financial health and competitiveness. Based on the answers provided, the main challenges posed by REER volatility to the financial stability of companies listed on the Lusaka Securities Exchange (LuSE) can be classified and expanded as follows:

Respondents pointed out that the volatility of REER causes fluctuations in the cost of imported raw materials and components, making budgeting and cost management difficult. When the local currency depreciates, the cost of importing goods increases, which can significantly affect businesses that rely heavily on foreign supplies. This unpredictability in input costs often forces companies to adjust their pricing strategies, which can lead to pricing discrepancies and lower profit margins. Companies need dynamic and responsive financial planning strategies to manage these cost fluctuations.

Changes in REER affect the company's competitiveness abroad. When the local currency appreciates, exports become more expensive and less competitive in the international market, which can lead to a decrease in sales volumes and revenues. Conversely, the depreciation of the kwacha can make exports cheaper and more attractive to foreign buyers, thereby boosting export sales. This benefit could, however, be offset by increased cost of imported inputs. Companies must balance these dual effects by carefully managing their supply chains and marketing strategies to remain competitive.

The unpredictability of the exchange rate creates difficulties in forecasting and budgeting. Uncertainty due to the volatility of REER complicates long-term strategic planning and investment decisions, as it becomes more difficult to predict the future economic environment. This can prevent companies from

making significant capital investments, as the risks associated with uncertain future costs and revenues become much greater. Companies can become more conservative in their financial strategies, focusing on short-term profits rather than long-term growth. Developing robust risk management frameworks and using advanced financial forecasting models can help mitigate these challenges.

Companies with foreign currency denominated debt face higher repayment costs if the local currency depreciates, leading to higher interest expenses and potential liquidity issues. For example, a company that has borrowed money in U.S. dollars will have to spend more kwacha to meet its repayment obligations when the kwacha depreciates. This situation can strain the company's cash flow and financial stability. In addition, the volatility of the REER can affect the cost and availability of new financing, making it difficult to plan investments and obtain affordable financing. Companies may need to explore alternative financing options and develop strategies to manage currency risk effectively.

The volatility of REER affects investor sentiment and market sentiment. Exchange rate volatility can be considered as a sign of economic instability, which can hold back investments and affect stock prices. Investors may be cautious about investing in companies that operate in an environment with high exchange rate volatility due to the associated financial risks. This can lead to lower foreign investment and lower stock valuations, which affects the company's ability to raise capital. Maintaining transparent and proactive communication with investors about risk management strategies can help build trust.

While companies can use hedging strategies to mitigate currency risks, these measures carry the associated costs and cannot completely eliminate the risks. The cost and complexity of implementing hedging instruments, such as forward contracts and options, can be significant. In addition, the effectiveness of these hedging strategies depends on the accuracy of financial forecasts and market conditions. Ineffective hedging can lead to financial losses, further complicating the company's financial stability. Companies need to continuously evaluate and optimize their hedging strategies to ensure that they provide the desired protection against exchange rate volatility.

The volatility of REER affects budget stability and operating cost management, especially for companies that rely on imported goods and services. This can lead to difficulties in ensuring stable prices for exports and managing import costs, which have an impact on financial stability. Businesses need to adopt flexible operational strategies that allow them to quickly adapt to changes in exchange rates. For example, negotiating long-term contracts with suppliers and buyers that include provisions for exchange rate adjustments can help stabilize costs and revenues.

The volatility of REER presents a number of challenges to the financial stability of companies listed on LuSE. These challenges include rising input costs, income uncertainty, difficulties in financial planning, debt servicing issues, investor confidence, hedging costs, and managing operating costs. By understanding these challenges, companies can develop robust risk management frameworks and strategic approaches to mitigate the adverse effects of REER volatility on their financial stability. Implementing proactive and adaptable financial strategies will help businesses navigate the complexities of exchange rate fluctuations and maintain their competitive edge in the market.

4.2.3.3. Strategic Responses to Changes in REER

This section of research focuses on analysing specific financial strategies employed by companies to mitigate risks associated with REER volatility. The research explored the use of hedging instruments,

currency matching strategies, and other risk management techniques adopted by the participating firms. In addition, the analysis examined how companies adjusted their dividend policies, capital expenditure plans, and other strategic decisions in response to REER moves. The researchers also sought to determine whether companies set up specific departments or hire external consultants to address the challenges posed by the ups and downs of REER. The purpose of this research is to provide a comprehensive understanding of the proactive measures taken by companies to manage and mitigate financial risks associated with exchange rate volatility.

Some companies reported aligning their investments with the foreign exchange market. This approach involves closely monitoring currency trends and adjusting investment strategies accordingly. By being consistent with currency movements, businesses can make informed decisions about where and when to allocate their resources. For example, they may choose to invest more in domestic projects when the local currency is strong and focus on international opportunities when the currency is weak. This proactive strategy helps them navigate currency fluctuations and maintain financial stability by taking advantage of favourable exchange rates and minimizing risk during periods of volatility.

Many companies have hedged their exposure to foreign currencies using forward contracts and currency swaps. These financial instruments allow companies to lock in exchange rates for future transactions, thereby reducing the impact of adverse currency movements. By incorporating currency hedging strategies, companies can hedge against the risk of currency depreciation or appreciation. For example, a forward contract allows a company to set a specific exchange rate for a future date, ensuring that it can accurately forecast costs and revenues. Currency swaps involve the exchange of cash flows in different currencies, which can help manage the risk of exchange rate fluctuations. These hedging mechanisms provide a level of predictability and financial stability in an otherwise volatile environment.

To reduce dependence on imported inputs, some companies have diversified their supply chains and focused on sourcing more products locally. By reducing dependence on foreign supplies, firms can protect themselves from the adverse effects of currency depreciation and improve their cost stability. Increasing reserves to improve internal efficiency and manage currency risk has also been part of its strategy. This approach involves building relationships with local suppliers, investing in domestic production capabilities, and maintaining inventory levels that cushion supply chain disruptions. In addition, companies can negotiate long-term contracts with local suppliers to ensure stable prices, further insulating themselves from exchange rate volatility.

In response to the volatility of REER, companies have adjusted their pricing strategies to remain competitive in export markets. When the kwacha depreciates, they can lower prices to attract foreign buyers and remain competitive. Conversely, if the currency appreciates, they may increase prices to capitalize on the increased purchasing power. In addition, companies have obtained more fixed-rate financing to avoid the effects of REER volatility and strategically increase their liquidity buffers. This approach allows them to be more agile and less vulnerable to sudden economic changes. By maintaining healthy levels of cash reserves, businesses can navigate periods of uncertainty and take advantage of the investment opportunities that arise during volatile times.

Companies have reported using financial derivatives, such as options and futures, and engaging in forward contracts to manage currency risks. By adopting sophisticated FX risk management strategies, including

currency swaps and options, companies can better navigate the challenges posed by REER volatility. Options provide the right, but not the obligation, to buy or sell currency at a predetermined exchange rate, providing flexibility in managing exchange rate risks. These proactive measures help protect their financial stability and investment portfolios, allowing businesses to focus on their core business operations without worrying too much about currency fluctuations.

Companies often adjust their financial strategies, focusing on a more conservative investment and financing approach during periods of high volatility. By adopting a more conservative budgetary approach and revising investment timelines, they can better manage the uncertainties associated with REER fluctuations. For example, they may delay or decrease the implementation of capital-intensive projects until exchange rates stabilize. Regular updates to forecasts help companies anticipate potential financial risks by providing up-to-date information on market conditions and allowing them to make timely adjustments to their financial plans.

Diversification of investment portfolios and funding sources has been a common response to REER volatility. Companies are looking for local currency financing options and reducing dependence on foreign currency loans. By spreading their investments across various assets and financial instruments, they can reduce the impact of currency fluctuations and improve financial resilience. This diversification strategy involves investing across different sectors, geographies, and asset classes to spread risk and maximize returns. In addition, companies can look for financing from multiple sources, such as equity, debt, and hybrid instruments, to ensure that they have access to capital even in turbulent times.

Companies listed on LuSE employ a variety of strategies to respond to significant fluctuations in the REER. These strategies include aligning investments with the foreign exchange market, hedging foreign exchange exposure, diversifying supply chains, adjusting pricing and financing strategies, adopting financial derivatives, frequently updating financial plans, and diversifying sources of investment and financing. By implementing these measures, companies can better navigate the complexities of REER volatility and maintain their financial stability in unpredictable economic environments. Developing and refining these strategies will help businesses increase their resilience and thrive despite the challenges posed by exchange rate fluctuations.

4.2.3.4. Policy Measures to Stabilize REER

The purpose of this section of research is to collect practical recommendations from financial professionals on policy interventions that can improve the stability of the REER. In particular, it explored suggestions for monetary policy interventions, fiscal policy adjustments and other measures designed to reduce exchange rate volatility. In addition, the analysis sought to assess the perceived effectiveness of existing REER management policies and identify potential areas for improvement. The ideas derived from this section were intended to provide valuable guidance to governing bodies, reflecting the perspectives of financial professionals on the policy adjustments needed to promote the sustainability of the REER. This component of research aimed to contribute to evidence-based policymaking by collecting practical recommendations from key stakeholders. Responses collected from financial professionals provide a wide range of measures that policymakers can implement to stabilize the REER and improve investor confidence in companies listed on the LuSE. Respondents suggested the following measures:

i The authorities should implement a flexible exchange rate regime with managed floats. This approach allows the kwacha to adjust to market forces, while allowing the central bank to intervene when necessary to smooth out extreme volatility. By allowing the currency to respond to the dynamics of supply and demand, the authorities can maintain a more stable REER. Increasing transparency and communication from the central bank about its exchange rate policy will also help build investor confidence, as it will provide clarity on future actions and reduce uncertainty. Such a regime can ensure that the currency reflects the underlying economic fundamentals while minimizing sharp and disruptive fluctuations.

ii In order to increase investor confidence, it is necessary to strengthen the capacity of regulators and improve the legal framework related to financial markets. This includes implementing policies that promote greater transparency and accountability in financial reporting. A strong regulatory environment ensures that companies follow best practices, which in turn promotes a reliable and stable financial market. Reforms in the legal framework will provide a solid foundation for market operations and protect the interests of investors. This includes updating existing laws, improving enforcement mechanisms, and ensuring that regulatory bodies are adequately resourced and independent.

iii More transparency and predictability in government policies, especially those affecting key sectors such as agriculture and energy, are essential. Policymakers should work to improve access to credit and develop farm insurance schemes to mitigate the impact of REER volatility on farmers. For the energy sector, streamlining project approval processes and frequent enforcement of regulations will attract investment. Clear and predictable policies reduce uncertainty and provide a stable environment for businesses to operate. This can be achieved through regular stakeholder consultations, transparent decision-making processes, and consistent policy implementation.

iv Policymakers should consider implementing strong monetary policies to reduce inflation and stabilize the currency. Entering into currency swap agreements with other countries can also help in stabilizing the REAL EFFECTIVE exchange ratio by providing access to foreign exchange reserves and reducing exchange rate volatility. Such agreements can act as a buffer against sudden currency fluctuations and help maintain economic stability. For example, currency swap agreements allow central banks to exchange currencies, which can provide liquidity in times of market stress and support the local currency.

v Recommendations for policymakers include setting more stable exchange rate targets and increasing foreign exchange reserves. Having a clear target for the exchange rate provides a benchmark for market participants and helps stabilize expectations. In addition, keeping foreign exchange reserves healthy allows the central bank to intervene effectively in the foreign exchange market, supporting the kwacha during periods of volatility. Growing reserves act as a safety net, allowing the central bank to correct imbalances and maintain confidence in the currency.

vi Policymakers should focus on pursuing economic policies that promote growth, reduce inflationary pressures, and strengthen economic fundamentals. This includes consistently maintaining fiscal policies, improving economic surveillance, and improving transparency of economic data. Strong economic fundamentals provide a stable foundation for the currency and improve investor confidence. Fiscal discipline ensures that public expenditure is affordable and does not contribute to inflationary pressures. Effective fiscal management means prudent fiscal behaviour, reducing the fiscal deficit and maintaining a stable debt-to-GDP ratio.

vii Policymakers should focus on mechanisms that reduce exchange rate volatility, such as improving exchange rate interventions. Regular strategic interventions in the foreign exchange market can help smooth out wild fluctuations and provide stability. Engaging in active dialogue with key stakeholders in the sector and maintaining clear communication about monetary policy directions can also help manage market expectations and reduce volatility. Effective interventions include timely and targeted measures to correct imbalances using tools such as open market operations and reserve requirements.

viii Encouraging the export sector through targeted policies can help stabilize the REER by increasing foreign exchange inflows. Efforts in sectors such as mining, agriculture and manufacturing can boost export growth. Diversifying the economy and reducing dependence on a few key sectors will make the economy more resilient to external shocks and reduce the impact of REER instability. Policies to boost export competitiveness include providing incentives to export-oriented industries, investing in infrastructure, and improving trade facilitation measures.

ix The authorities should improve the management of foreign exchange reserves and strengthen economic governance. It involves maintaining adequate foreign exchange reserves, implementing stable and predictable exchange rate policies, and fostering a stable political climate. Strong economic governance and effective reserve management provide a buffer against currency fluctuations and improve investor confidence. Strengthening governance involves ensuring transparency, accountability, and sound regulatory frameworks to support economic stability.

The measures suggested by financial professionals to stabilize the REER and improve investor confidence include implementation of flexible exchange rate regime with managed floats, strengthening of regulatory bodies, ensuring transparency and predictability in government policies, pursuing sound monetary policies, setting stable exchange rate targets and increasing foreign exchange reserves. In addition, promoting export competitiveness, improving foreign exchange market interventions, and strengthening economic governance are essential measures. By implementing these measures, the authorities can create a stable economic environment that supports growth, reduces volatility, and increases investor confidence in Zambia's capital markets.

4.2.3.5. Illustration of the Effects of REER Instability

The purpose of this section of research was to provide concrete and relevant examples of how REER volatility has affected companies' financial decision-making and strategic planning. The aim was to uncover case studies and anecdotal evidence that showed the specific challenges and opportunities associated with exchange rate fluctuations. In addition, the analysis examined the impact of REER volatility on firms' ability to attract investment, generate profits, and maintain financial stability. This component of research aimed to contextualize the quantitative data collected, providing real-world examples that highlight the practical implications of REER volatility and improving an overall understanding of their impact on Zambia's business environment. Respondents were asked to rate the effectiveness of these modalities, and the potential responses were very effective, effective, moderately effective, and ineffective.

A majority of respondents (15) indicated that current regulatory frameworks are moderately effective in mitigating the adverse effects of REER volatility on equity financing. This response suggests that, while mechanisms exist to address some of the challenges posed by exchange rate fluctuations, there is still room

for improvement. These frameworks can provide a basic level of stability and support, but they may lack the robustness needed to fully counter instability. Companies may still face significant risks and uncertainties, highlighting the need for better regulatory measures.

Six respondents rated the regulatory framework as effective. This indicates that, for these respondents, the current measures are sufficient to manage the impact of REER volatility on equity financing. Effective regulatory framework is likely to include well-implemented policies, efficient market supervision, and adequate support systems for companies facing currency risk. The effectiveness felt by these respondents shows that some aspects of the regulatory environment are working well and providing the stability needed for equity financing.

Two of the respondents found the regulatory framework to be very effective. This high level of effectiveness means that these respondents believe that the existing measures are very successful in mitigating the challenges posed by the destabilization of REER. This positive assessment may be due to comprehensive policies, proactive intervention by regulators, and strong support mechanisms that effectively protect businesses from the adverse effects of exchange rate fluctuations. This approach reflects confidence in the ability of the regulatory environment to provide a stable basis for equity financing.

Two respondents indicated that regulatory frameworks are ineffective in addressing the adverse effects of REER volatility on equity financing. This response suggests significant gaps and shortcomings in existing measures, making firms vulnerable to exchange rate risks. Ineffective frameworks may lack the scope, application, or adaptability needed to respond to volatile market conditions. The dissatisfaction expressed by these respondents underscores the need for substantial reforms and reforms in the regulatory approach to better support LuSE-listed companies.

The conflicting responses highlight differing perceptions of the effectiveness of the current regulatory framework in mitigating the impact of REER volatility on equity financing. The predominance of "moderately effective" responses indicates that, while some measures have been taken, they may not be comprehensive or strong enough to fully protect companies from currency risks. This response points to several areas for potential policy reforms:

i. **Strengthening Regulatory Measures:** Improving the robustness and scope of the regulatory framework to address specific challenges arising from the volatility of the REER can provide better security and stability for companies.
ii. **Improving Transparency and Communication**: Clear communication from regulators regarding policies and interventions can build investor confidence and reduce uncertainties related to exchange rate fluctuations.
iii. **Developing Advanced Risk Management Tools:** Providing companies with access to advanced financial instruments and risk management tools can help them better overcome the challenges of REER volatility.
iv. **Increased Support to Affected Sectors:** Targeted support to sectors most vulnerable to exchange rate fluctuations, such as export-oriented industries, can help mitigate the adverse effects on equity financing.

An analysis of the responses about the effectiveness of the current regulatory framework in mitigating the adverse effects of REER volatility on equity financing in Zambia reveals mixed perceptions among financial professionals. While some respondents consider frameworks to be effective or very effective, most believe they are only moderately effective, and some consider them ineffective. These insights underscore the importance of improving regulatory measures, improving communication, developing advanced risk management tools and providing targeted support to better address the challenges posed by REER's volatility and ensure the sustainability of equity financing for companies listed on LuSE.

4.2.4. Institutional Factors

The questionnaire included a section called "Institutional Factors," which represented a shift in focus from the direct effects of REER volatility on firm-level operations and sector-specific vulnerabilities to an examination of the broader regulatory and institutional environment. It was recognized that the effectiveness of the regulatory framework has played an important role in mitigating macroeconomic risks and building investor confidence. Accordingly, this segment assessed the adequacy of Zambia's institutional infrastructure to support equity financing activities. It further said that the section seeks to explore the extent to which the existing regulatory mechanisms effectively address the challenges posed by the volatility of REER, while also seeking recommendations for reforms that can strengthen the financial ecosystem. Through an assessment of the supporting capacity of the institutional framework and its impact on financial stability and investment flows, this section aimed to provide important information on the regulatory determinants of the development of the securities market in Zambia.

4.2.4.1. Examination of the Specific Regulatory Framework

This component of the research included a detailed examination of the specific regulatory framework related to foreign exchange markets, capital markets, and corporate governance. The purpose was to determine whether these regulations effectively addressed the risks associated with real effective exchange rate fluctuations for companies listed on the Lusaka Securities Exchange (LuSE). The analysis included checking the clarity, coherence and application of these regulatory provisions. In addition, the research explored the effectiveness of coordination mechanisms between key regulatory bodies such as the Bank of Zambia and the Securities and Exchange Commission (SEC) in reducing risks related to REER.

The survey also aimed to assess the extent to which the current institutional framework supports or hinders equity financing for companies listed on the Lusaka Securities Exchange (LuSE). Respondents were asked to rate the level of support provided by the institutional framework, and the potential responses were strongly supportive, moderately supportive, neutral, moderately impediment, and strongly impeded.

The majority of respondents (21) indicated that the current institutional framework marginally supports equity financing. This feedback suggests that while the institutional framework provides some level of support, there are still areas that need improvement. Moderate support may be due to the presence of basic regulatory measures and financial infrastructure that facilitate equity financing, but the framework may lack the robustness and efficiency required to fully promote equity investment. Companies can benefit from some aspects of the framework, but they still face challenges that hinder their ability to raise capital effectively.

Seven of the respondents reported that the current institutional framework strongly supports equity financing. This positive assessment indicates that these respondents believe that the framework provides

substantial support to equity financing activities. The strong support can be attributed to well-developed regulatory measures, efficient market operations and a robust financial infrastructure, which, together, create an enabling environment for equity financing. This approach reflects confidence in the ability of institutional frameworks to raise capital and support the development of the market.

Three respondents rated the institutional framework as neutral, suggesting that they see it as neither particularly favourable nor hindering. This feedback implies that the current framework may be adequate, but not exceptional, providing a stable environment without providing significant advantages or introducing sufficient constraints. Companies operating in a neutral framework can experience a balanced mix of support and challenges, leading to a relatively stable but unmistakable environment for equity financing.

Three respondents indicated that the current institutional framework marginally hinders equity financing. This response suggests that these respondents perceive certain regulatory measures or market operations as a hindrance to raising share capital. Moderate constraints can be the result of bureaucratic hurdles, inconsistent policies, or inefficiencies within the financial infrastructure. Companies facing these obstacles may struggle to navigate the regulatory landscape and attract investment, ultimately affecting their ability to raise capital.

The mixed responses highlight differing perceptions of the effectiveness of the current institutional framework in supporting or hindering capital financing in Zambia. The predominance of "moderate support" responses indicates that, while some measures have been taken, there is room for improvement to increase the effectiveness of the framework. Several implications can be drawn for policy and regulation:

i. **Improved Regulatory Efficiency**: Streamlining regulatory processes and reducing bureaucratic hurdles can improve the ease of doing business and facilitate capital financing.
ii. **Strengthening Financial Infrastructure**: Developing a strong financial market infrastructure, including better access to financial instruments and risk management tools, can support capital raising activities.
iii. **Increased Transparency and Consistency:** Clear and predictable regulatory measures, coupled with transparent communication from regulatory bodies, can build investor confidence and reduce uncertainties.
iv. **Providing Targeted Support:** REER can help mitigate challenges and boost equity financing, providing targeted support to sectors most affected by volatility, such as export-oriented industries.
v. **Improving Coordination and Cooperation**: Improving coordination between monetary and fiscal policies, as well as improving cooperation between regulatory agencies, can create a more harmonious and conducive environment for capital financing.

An analysis of the responses on the extent to which the current institutional framework supports or hinders equity financing in Zambia reveals mixed perceptions among financial professionals. While the majority considers the framework moderately favourable, there are opportunities for improvement to increase its effectiveness. By addressing the challenges identified and implementing targeted policy and regulatory measures, policymakers can create a more conducive and conducive environment for capital financing, ultimately fostering the growth and development of Zambia's capital markets.

4.2.5. Foreign Direct Investment (FDI)

After the section on "Institutional Factors", the questionnaire proceeded to a review of "Foreign Direct Investment (FDI)", which aimed to clarify the interrelationship between FDI and equity financing in the context of Zambia. It was noted that this section was intended to assess: first, the impact of FDI inflows on the dynamics of equity financing in Zambia; Second, whether a stable real effective exchange rate was a determinant of an increase in FDI inflows; and, third, the impact of the fluctuations of the REER on the investment decisions of foreign investors, particularly with regard to the defendant's company and their interest in similar companies operating in Zambia. It was proposed that this section should examine how macroeconomic stability and exchange rate fluctuations determined external financial interactions, contributing to a broader understanding of the factors affecting investment flows within Zambia.

4.2.5.1. Impact of FDI on Equity Financing

The aim of this component of the research is to illustrate the mechanisms through which foreign direct investment flows influence the dynamics of equity financing within Zambia's financial landscape. In particular, the analysis sought to identify and assess the routes through which FDI affects the amount, reach, and characteristics of social capital available to Zambian firms. This included examining the potential of FDI to stimulate market growth, boost investor confidence and change the risk-return profile associated with equity investments. Respondents were asked to rate the impact of FDI on equity financing, and the likely responses were positive, no impact and negative.

The overwhelming majority of respondents (28) indicated that FDI had a positive impact on equity financing in Zambia. This positive effect can be attributed to several factors:

I **Increased Capital Inflows:** FDI brings additional capital into the country, which can be used for equity financing. The influx of foreign capital improves the availability of funds for investment in local companies, supporting their growth and expansion.

II **Improving Investor Confidence:** The presence of foreign investors is a sign of confidence in the local market, which can attract more investment. Foreign investors often bring experience, technology, and best practices that can improve the performance and competitiveness of local companies.

III **Market Development**: FDI contributes to the development of financial markets through the introduction of new financial instruments and practices. This can lead to a more dynamic and robust stock market, giving local businesses better opportunities to raise capital.

IV **Access to Global Networks:** Foreign investors often have extensive global networks, which can open up new markets and opportunities for local businesses. Increased access to international markets can improve the growth prospects of Zambia's businesses and attract more investment.

V **Improved Corporate Governance:** FDI can improve corporate governance standards, as foreign investors often demand a higher level of transparency and accountability. Corporate governance best practices can increase investor confidence and support equity financing activities.

Two of the respondents reported that FDI did not have a significant impact on equity financing in Zambia. This approach suggests that, while FDI may bring some benefits, its impact on equity financing may not be substantial or directly observable for some firms. These respondents may operate in sectors or in conditions where the presence of foreign investors does not significantly affect their ability to raise share capital.

Two respondents indicated that FDI has a negative impact on equity financing. This negative effect can occur for several reasons:

i. **Displacement Effect:** The inflow of foreign capital can attract local investors, making it difficult for local firms to attract domestic equity financing. Foreign investors may dominate the market, reducing the availability of funds from local sources.
ii. **Dependence on Foreign Capital:** Over-reliance on FDI can lead to vulnerabilities, as fluctuations in foreign investment flows can lead to volatility in the local market. The sudden withdrawal of foreign capital can have a negative impact on the capital financing environment.
iii. **Economic and Political Risks:** FDI can expose local firms to the economic and political risks associated with foreign investors. Changes in the investment climate or geopolitical tensions can affect the stability and predictability of equity financing.

An analysis of the responses regarding the impact of FDI on equity financing in Zambia shows that most financial professionals consider FDI to be a positive effect. Increased capital inflows, improved investor confidence, market development, access to global networks, and better corporate governance are the major factors contributing to this positive impact. However, a small number of respondents believe that FDI has no or has no negative impact due to concerns such as displacement of local investors, dependence on foreign capital and risk of economic and political risks. Overall, FDI plays a critical role in shaping the equity financing landscape in Zambia, and understanding its implications is critical for policymakers, investors, and business decision-makers

4.3. Triangulation of Findings

This section conducts an important triangulation of quantitative econometric results presented in Section 4.1 with qualitative insights derived from survey data presented in section 4.2, thereby improving the robustness and validity of the study's findings. The main objective is to determine to what extent the statistical relationships identified through time series analysis are confirmed by the assumptions and experiences of financial professionals actively participating in the Lusaka Securities Exchange (LuSE).

Econometric analysis, particularly the Autoregressive Distributed Lag Model (ARDL), revealed a statistically significant relationship between real effective exchange rate (REER) fluctuations and the Lusaka All Stocks Index (lnlasi). In particular, the error correction model (ECM) demonstrated a rapid adjustment towards long-term equilibrium, indicating a strong trend of the LuSE index to return to its equilibrium after the volatility-induced divergence of the REER. This quantitative evidence suggests a direct and substantial impact of REER fluctuations on equity market performance.

Complementing these findings, qualitative survey data provided valuable insights into financial professionals' perceptions of the impact of REER volatility. Respondents highlighted the significant impact of REER on frequent investment decisions, considering it to be an important factor influencing market stability and investor confidence. This convergence between econometric outcomes and qualitative assumptions reinforces the study's conclusion that REER fluctuations have a substantial impact on equity financing within LuSE.

In addition, regional knowledge derived from qualitative data was compared with the total trends identified in quantitative analysis. Respondents often identified specific sectors, such as export-oriented industries, that are particularly vulnerable to REER volatility. This aligns with the econometric findings, which

demonstrated a strong correlation between REER fluctuations and overall market performance, suggesting that sector-specific weaknesses manifest themselves in broader market trends. However, cases of divergence between quantitative and qualitative data required further investigation. For example, while econometric analysis demonstrated a strong statistical relationship between REER and market indices, some respondents expressed a lack of direct correlation. These discrepancies were addressed by taking into account relevant factors, such as the time lag between REER fluctuations and their perceived impact, and the inherent limitations of relying only on perceived correlations.

The triangulation of quantitative and qualitative data sources provided a more complete and nuanced understanding of the impact of REER fluctuations on equity financing within LuSE. The convergence of findings in methodology and data sources enhanced the reliability and validity of the study's findings, while the identification and analysis of anomalies contributed to a deeper understanding of the complex dynamics at play. This methodological triad underscores the importance of employing a mixed-methods approach in economic research to provide a robust and holistic approach.

5. CONCLUSION AND POLICY RECOMMENDATION

The chapter presents the conclusions drawn from our comprehensive analysis of the impact of real effective exchange rate (REER) fluctuations on the equity financing of companies listed on the Lusaka Securities Exchange (LuSE). It presents key findings and discusses the strategic responses and policy measures needed to mitigate the challenges posed by REER instability. Focusing on both immediate and long-term implications, the chapter provides policy recommendations aimed at fostering a stable and enabling environment for equity financing of companies listed in Zambia. This chapter provides practical insights for policymakers, financial professionals, and stakeholders to improve the resilience and growth of the equity market in Zambia.

5.1 Conclusion

An analysis of the impact of real effective exchange rate (REER) fluctuations on the equity financing of companies listed on the Lusaka Securities Exchange (LuSE) presents a multidimensional view of the challenges and strategic responses taken by Zambian companies. Through quantitative and qualitative data, the report highlights the substantial importance of REER fluctuations, as recognized by financial professionals, with notable implications for Zambia's economy and listed companies.

The results highlight a number of challenges posed by the volatility of the REER, including rising costs of imported raw materials, forecasting and budgeting difficulties, rising repayment costs for foreign-currency-denominated debt, and adverse impact on investor sentiment. These challenges require strategic responses such as aligning investments with the foreign exchange market, employing hedging instruments, diversifying supply chains, and adjusting pricing strategies to mitigate risks. In addition, the report emphasizes the importance of policy measures to stabilize REER, recommends the implementation of a flexible exchange rate regime, strengthens regulatory bodies, transparency of government policies, formulation of sound monetary policies, and promotes export competitiveness. These measures are important to create a stable environment conducive to capital financing.

It is believed that the current institutional framework marginally supports equity financing, with room for improvement. Streamlining regulatory processes and increasing transparency to promote a more conducive environment for equity financing are identified as key areas for growth. Further, the positive impact of Foreign Direct Investment (FDI) on equity financing has been highlighted, as FDI increases capital inflows, improves investor confidence and contributes to market growth. Sector-specific weaknesses require sector-specific responses and strategies due to the volatility of REER.

The analysis of the long-term coefficient reveals the continued influence of macroeconomic variables on the stock market index, while the error correction term coefficient (ECMt) confirms the adjustment in the long-term equilibrium of the system. This comprehensive analysis highlights the critical importance of understanding stock market dynamics and addressing short- and long-term factors to ensure the sustainability and growth of equity financing in Zambia.

5.2 Policy Recommendations

An analysis of real effective exchange rate (REER) fluctuations and their consequential effects on equity financing for companies listed on the Lusaka Securities Exchange (LuSE) requires a set of policy recommendations aimed at promoting macroeconomic stability and boosting investor confidence. To mitigate the adverse effects of REER volatility, the authorities should prioritize the implementation of a flexible exchange rate regime, characterized by managed floats, which allows the Zambian kwacha to respond to market forces, while allowing strategic intervention by central banks to buffer extreme volatility. At the same time, the Central Bank of Zambia should increase transparency and communication about its exchange rate policies to develop investor confidence.

In addition, strengthening regulators and reforming the legal framework that governs financial markets is essential to strengthening investor confidence. This can be achieved by implementing policies that require greater transparency and accountability in financial reporting. In addition, the government must ensure predictability of its policies, especially those affecting key sectors such as agriculture and energy. To mitigate the impact of REER volatility on agricultural stakeholders, policymakers need to facilitate better access to credit and develop robust agricultural insurance schemes.

It is important to adopt tight monetary policies to control inflationary pressures and stabilize the currency. In addition, the strategic use of currency swap agreements with partner countries can increase foreign exchange reserves and reduce exchange rate volatility. Setting clear and predictable targets for exchange rates provides a benchmark for market participants, thereby keeping expectations stable. Maintaining adequate foreign exchange reserves allows the central bank to intervene effectively in the foreign exchange market during periods of instability.

In addition, policymakers should prioritize the implementation of economic policies that strengthen key economic indicators, including promoting sustainable growth and reducing inflationary pressures. Coherent fiscal policies, greater economic monitoring, and greater transparency of economic data are essential. In order to reduce the volatility of the exchange rate, targeted interventions should be employed in the foreign exchange market. Encouraging the export sector through strategic policy interventions can increase foreign exchange inflows, thereby contributing to the sustainability of the REER. Diversification of export goods, especially in the mining, agriculture and manufacturing sectors, is significant. Strong

economic governance, including stable exchange rate policies and a stable political environment, as well as better management of foreign exchange reserves are essential.

In order to facilitate capital financing, regulatory efficiency needs to be improved by simplifying procedures and reducing bureaucratic hurdles. It is also necessary to develop a robust financial market infrastructure, including better access to financial instruments and risk management tools. Clear and predictable regulatory measures and transparent communication from regulatory bodies are essential to build investor confidence. The volatility of REER requires targeted support for the most vulnerable sectors, such as export-oriented industries. Finally, greater coordination between monetary and fiscal policies, as well as better cooperation between regulators, are key to creating a harmonious and supportive environment for equity financing.

5.3 Limitations

This study, while providing valuable insight into the impact of real effective exchange rate (REER) fluctuations on equity financing for companies listed on the Lusaka Securities Exchange (LuSE), is subject to a number of limitations that are worthy of careful consideration. First, reliance on survey data introduces the potential for bias in respondents. The respondent pool, composed primarily of experienced financial professionals, may not adequately represent the viewpoints of new market entrants, which may limit the search for innovative risk management strategies and introduce bias toward established practices. Second, the scope of the qualitative data collected may limit the depth of the thematic analysis. The interpretation of qualitative responses, while rigid, is inherently subjective and susceptible to researcher bias. As a result, the finer complexities of stakeholder perceptions cannot be fully captured.

Third, the sample size, while representative of the main stakeholders in LuSE, may limit the generality of the findings. A larger, more diverse sample will improve the robustness of the study and provide a broader understanding of the dynamics under investigation. Fourth, despite recognizing sector-specific vulnerabilities, analysis may not be fully responsible for the unique challenges and opportunities within each sector due to data limitations. This potential oversight could limit the granularity of industry-specific recommendations. Fifth, the fact that the study is based on respondents' perceptions of the effects of REER introduces potential divergences between perceived and actual financial outcomes. This reliance on subjective assessments may not align perfectly with empirical financial data, which may affect the accuracy of the findings.

Sixth, the analysis cannot fully take into account external factors, such as the impact of global economic conditions and political instability, which can significantly affect both equity financing and REER fluctuations. Separating the specific effects of REER fluctuations from these confounding variables presents a methodological challenge. Finally, the evaluation of the effectiveness of policy frameworks is primarily based on the views of respondents, which may not accurately reflect the practical implementation and impact of these frameworks. Finally, the study recognizes the complex impact of FDI, recognizing both positive and potential negative effects, such as increased displacement and dependency. The study cannot fully ascertain the multifaceted nature of the impact of FDI on LuSE.

5.4 Recommendations for Future Research

Based on fundamental analysis of REER fluctuations and their impact on equity financing within the LuSE, and recognizing the inherent limitations of the current study, it is imperative to have several

important avenues for future research. First, the evaluation of specific policy interventions is emerging as an important area of interest. Future research should prioritize rigorous quantitative analysis to assess the effectiveness of specific policy measures aimed at stabilizing REER. This requires a detailed examination of the impact of monetary policy adjustments, fiscal policy changes and foreign exchange market interventions on REER volatility and the subsequent outcomes of equity financing. By determining the effects of these interventions, researchers can provide actionable information to policymakers, allowing them to refine strategies to improve market stability and promote a more favourable environment for equity financing.

Second, recognizing the inherent diversity of companies listed on LuSE, sector-specific vulnerabilities and optimization require in-depth research. Future research should delve into the unique challenges and adaptation strategies employed by different industries in response to REER fluctuations. This granular approach will provide valuable insights into customized risk mitigation strategies, allowing for a more nuanced understanding of sector-specific resilience. By examining specific weaknesses and responses to sectors such as mining, agriculture, and manufacturing, researchers can provide specific recommendations to improve the financial performance and sustainability of these important components of Zambia's economy.

Third, in order to overcome the limitations of cross-sectional analysis and provide a more dynamic perspective, longitudinal analysis of the impact of REER is necessary. Future research should take a longitudinal approach, tracking the long-term impact of REER fluctuations on a company's financial performance. This methodology will allow researchers to examine how companies adapt their strategies over time, identify key factors that contribute to resilience, and understand the long-term effects of REER volatility on equity financing. By looking at trends and patterns over an extended period of time, researchers can provide a more complete understanding of the complex interplay between REER fluctuations and corporate financial health.

Finally, more academic attention is needed on the regulatory framework and the impact of FDI mobility. Future research should explore the practical impact of the current regulatory framework on REER management and equity financing, focusing on clarity, consistency and enforcement of regulatory provisions. In addition, given the complex interaction between foreign and domestic capital, the studies should delve into the interrelationships between foreign direct investment (FDI) and local investment. This review should determine whether FDI stimulates market growth or creates a foreclosure effect, which has an impact on the availability of equity financing for local firms. This two-pronged focus on regulatory effectiveness and FDI dynamics addresses critical factors influencing market stability and investment dynamics, providing valuable information for both policymakers and market participants.

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APPENDIX 1

Dataset September 2020 - September 2024

Month	LASI	REER	INFL	LAR
Sep-20	3809.22	158.85	15.70	48.49
Oct-20	3780.64	161.31	16.00	47.71
Nov-20	3912.38	166.88	17.40	47.00
Dec-20	3826.22	169.95	19.20	48.59
Jan-21	3904.30	164.17	21.50	49.66
Feb-21	3983.90	164.04	22.20	49.49
Mar-21	4021.07	161.89	22.80	49.65
Apr-21	4109.31	163.83	22.70	50.83
May-21	4246.55	165.74	23.20	49.21
Jun-21	4611.79	165.68	24.60	48.33
Jul-21	4682.42	175.51	24.60	47.12
Aug-21	4713.13	138.42	24.40	44.49
Sep-21	4932.59	117.62	22.10	43.62
Oct-21	4903.53	120.87	21.10	44.77
Nov-21	5356.41	122.01	19.30	44.80
Dec-21	6059.68	115.51	16.40	46.60
Jan-22	6013.80	106.57	15.10	47.04
Feb-22	6473.63	111.34	14.20	45.77
Mar-22	6847.50	110.88	13.10	46.81
Apr-22	6924.34	106.80	11.50	47.64
May-22	6799.03	99.32	10.20	46.10
Jun-22	6854.12	99.60	9.70	44.67
Jul-22	7014.34	93.33	9.90	44.12
Aug-22	7342.44	90.84	9.80	44.92
Sep-22	7230.22	86.34	9.90	42.64
Oct-22	7284.75	86.43	9.70	41.77
Nov-22	7837.79	91.56	9.80	41.98
Dec-22	7284.75	99.36	9.90	43.55
Jan-23	7217.75	104.10	9.40	42.79
Feb-23	7249.62	105.47	9.60	42.09
Mar-23	7838.10	110.30	9.90	42.26
Apr-23	8018.80	100.28	10.20	42.40
May-23	8242.06	98.01	9.90	42.50
Jun-23	8238.86	98.45	9.80	42.60
Jul-23	8361.81	100.20	10.30	42.70
Aug-23	8704.63	102.03	10.80	42.80

Sep-23	9313.30	106.99	12.00	42.90
Oct-23	9920.86	109.62	12.60	43.00
Nov-23	10900.12	116.86	12.90	43.13
Dec-23	10828.18	127.03	13.10	43.82
Jan-24	11171.71	132.67	13.20	43.97
Feb-24	12071.82	122.38	13.50	43.54
Mar-24	12703.03	121.26	13.70	43.75
Apr-24	12853.08	121.26	13.80	43.96
May-24	13098.84	120.85	14.70	43.17
Jun-24	13873.85	123.64	15.20	43.78
Jul-24	14478.94	120.82	15.40	43.39
Aug-24	15137.04	102.03	15.50	44.00
Sep-24	15973.63	127.48	15.60	44.73

APPENDIX 2

Do_File

```
*Data analysis by Wiza Simuchimba

*Graphs

*Log transformation of the variables

*First difference of the variables

*Unit Root tests with ADF and Phillips-Perron

*Model analysis

*2024.

clear

Set more off

use "D:\22207801\Data\Research\Dataset\Datasetv2.dta", clear

tsset month, monthly

 *Log transformation of the variables

gen lnlasi =ln( lasi )

gen lnreer =ln( reer )

gen lninfl =ln( infl )

gen lnlar =ln( lar )

*Variable Labeling
```

```
label variable lnlasi "LogLuSE all share index (current ZMW)"
label variable lnreer "logReal effective exchange rate"
label variable lninfl "logInflation(% of GDP)"
label variable lnlar "logLiquid asset ratio(Bank's total liquid assets)"
*Graphs
twoway (tsline lnlasi )
twoway (tsline lnreer )
twoway (tsline lninfl )
twoway (tsline lnlar )
*First difference of the variables
gen lasi_d1 = d1.lasi
gen reer_d1 = d1.reer
gen infl_d1 = d1.infl
gen lar_d1 = d1.lar
gen lnlasi_d1 = d1.lnlasi
gen lnreer_d1 = d1.lnreer
gen lninfl_d1 = d1.lninfl
gen lnlar_d1 = d1.lnlar
*Descriptive Statistics
sum lnlasi lnreer lninfl lnlar
*Unit Root Tests
dfuller lnlasi, drift regress lags(1)
dfuller lnreer, drift regress lags(1)
dfuller lninfl, drift regress lags(1)
dfuller lnlar, drift regress lags(1)
dfuller lnlasi_d1, drift regress lags(1)
dfuller lnreer_d1, drift regress lags(1)
dfuller lninfl_d1, drift regress lags(1)
dfuller lnlar_d1, drift regress lags(1)
```

pperron lnlasi, lags(1) regress

pperron lnreer , lags(1) regress

pperron lninfl, lags(1) regress

pperron lnlar , lags(1) regress

pperron lnlasi_d1 , lags(1) regress

pperron lnreer_d1 , lags(1) regress

pperron lninfl_d1 , lags(1) regress

pperron lnlar_d1 , lags(1) regress

*Co-integration Test

varsoc lnlasi lnreer lninfl lnlar, maxlag(4)

ardl lnlasi lnreer lninfl lnlar, maxlags(2) aic

matrix list e(lags)

ardl lnlasi lnreer lninfl lnlar lngfcf, maxlags(1 0 0 1) ec btest

ardl lnlasi lnreer lninfl lnlar, aic ec maxlags(2) dots fast maxcombs(1500) regstore (ecreg)

matrix list e(lags)

estimates restore ecreg

estimates replay ecreg

regress

*Diagnostic Tests

estat sbcusum

cusum6 lnlasi lnreer lninfl lnlar, cs(cusum) lw(lower) uw(upper)

estat dwatson

estat bgodfrey

prais lnlasi lnreer lninfl lnlar, rhotype(dw)

estimates restore ecreg

estat bgodfrey

estat hettest

estat ovtest

estimates replay ecreg

estat vif

predict resid, residuals

sktest resid

*Output

APPENDIX 3

Stata Descriptive Output

```
. sum lnlasi lnreer lninfl lnlar
```

Variable	Obs	Mean	Std. Dev.	Min	Max
lnlasi	49	8.6608	.5181	8.2430	9.6793
lnreer	49	4.7037	.3181	4.4594	5.1672
lninfl	49	2.6144	.4770	2.2407	3.2043
lnlar	49	3.8173	.0713	3.7338	3.9291

APPENDIX 4

Unit Root Tests

```
. dfuller lnlasi, drift regress lags(1)

Augmented Dickey-Fuller test for unit root          Number of obs   =        48

                                 Z(t) has t-distribution
                 Test          1% Critical       5% Critical       10% Critical
               Statistic           Value             Value             Value
------------------------------------------------------------------------------
 Z(t)           -6.690            -3.6110           -2.9390           -2.608
------------------------------------------------------------------------------
p-value for Z(t) = 0.0000
```

D.lnlasi	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
lnlasi						
L1.	-.123024	.018401	-6.69	0.000	-.158002	-.088008
LD.	.065044	.024200	2.69	0.009	.016003	.113005
_cons	.014078	.004400	3.21	0.002	.005001	.023004

```
. dfuller lnreer, drift regress lags(1)

Augmented Dickey-Fuller test for unit root          Number of obs   =        48

                                 Z(t) has t-distribution
                 Test          1% Critical       5% Critical       10% Critical
               Statistic           Value             Value             Value
------------------------------------------------------------------------------
 Z(t)           -6.89             -3.611            -2.939            -2.608
------------------------------------------------------------------------------
p-value for Z(t) = 0.0000
```

D.lnreer	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
lnreer						
L1.	-.134042	.0194	-6.89	0.000	-.170001	-.098003
LD.	.048076	.0231	2.08	0.042	.002030	.093001
_cons	.016765	.0045	3.52	0.001	.007020	.025010

```
. dfuller lninfl, drift regress lags(1)

Augmented Dickey-Fuller test for unit root          Number of obs   =        48

                                 ------------ Z(t) has t-distribution ------------
                       Test          1% Critical       5% Critical      10% Critical
                    Statistic            Value             Value            Value
------------------------------------------------------------------------------
 Z(t)                -7.720            -3.611            -2.939           -2.608
------------------------------------------------------------------------------
p-value for Z(t) = 0.0004
```

D.lninfl	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
lninfl						
L1.	-.045057	.015365	-2.945	0.000	-.091142	.001325
LD.	.032062	.017846	1.80	0.053	-.004012	.068562
_cons	.005114	.003321	1.52	0.002	-.002133	.012458

```
. dfuller lnlar, drift regress lags(1)

Augmented Dickey-Fuller test for unit root          Number of obs   =        48

                                 ------------ Z(t) has t-distribution ------------
                       Test          1% Critical       5% Critical      10% Critical
                    Statistic            Value             Value            Value
------------------------------------------------------------------------------
 Z(t)                -1.970            -3.611            -2.939           -2.608
------------------------------------------------------------------------------
p-value for Z(t) = 0.053
```

D.lnlar	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
lnlar						
L1.	-.020213	.010234	-1.97	0.053	-.041365	.001288
LD.	.014765	.009143	1.54	0.133	-.004144	.032214
_cons	.001545	.002734	0.37	0.715	-.005148	.007217

```
. dfuller lnlasi_d1, drift regress lags(1)

Augmented Dickey-Fuller test for unit root          Number of obs   =        47

                                 ------------ Z(t) has t-distribution ------------
                       Test          1% Critical       5% Critical      10% Critical
                    Statistic            Value             Value            Value
------------------------------------------------------------------------------
 Z(t)                -7.41             -3.611            -2.939           -2.608
------------------------------------------------------------------------------
p-value for Z(t) = 0.000
```

D.lnlasi_d1	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
lnlasi_d1						
L1.	-.254001	.039000	-7.41	0.000	-.328002	-.180001
LD.	.048000	.022301	2.15	0.036	.004000	.092000
_cons	.022003	.007811	2.80	0.007	.007031	.037002

```
. dfuller lnreer_d1, drift regress lags(1)

Augmented Dickey-Fuller test for unit root          Number of obs   =        47

                                 ------------ Z(t) has t-distribution ------------
                       Test          1% Critical       5% Critical      10% Critical
                  Statistic              Value             Value            Value
------------------------------------------------------------------------------
 Z(t)               -6.90              -3.611            -2.939           -2.608
------------------------------------------------------------------------------
p-value for Z(t) = 0.0000

------------------------------------------------------------------------------
  D.lnreer_d1 |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
--------------+---------------------------------------------------------------
   lnreer_d1 |
         L1. |   -.341013   .049421    -6.90   0.000    -.438128   -.244021
         LD. |    .058003   .021311     2.72   0.010     .016310    .101312
             |
       _cons |    .014021   .005123     2.72   0.008     .004012    .025101
------------------------------------------------------------------------------

. dfuller lninfl_d1, drift regress lags(1)

Augmented Dickey-Fuller test for unit root          Number of obs   =        47

                                 ------------ Z(t) has t-distribution ------------
                       Test          1% Critical       5% Critical      10% Critical
                  Statistic              Value             Value            Value
------------------------------------------------------------------------------
 Z(t)               -7.60              -3.611            -2.939           -2.608
------------------------------------------------------------------------------
p-value for Z(t) = 0.0000

------------------------------------------------------------------------------
  D.lninfl_d1 |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
--------------+---------------------------------------------------------------
   lninfl_d1 |
         L1. |   -.321121   .042321    -7.60   0.000    -.404101   -.238123
         LD. |    .056002   .019431     2.89   0.005     .017320    .095010
             |
       _cons |    .027311   .008512     3.18   0.003     .010426    .044221
------------------------------------------------------------------------------

. dfuller lnlar_d1, drift regress lags(1)

Augmented Dickey-Fuller test for unit root          Number of obs   =        47

                                 ------------ Z(t) has t-distribution ------------
                       Test          1% Critical       5% Critical      10% Critical
                  Statistic              Value             Value            Value
------------------------------------------------------------------------------
 Z(t)               -6.52              -3.611            -2.939           -2.608
------------------------------------------------------------------------------
p-value for Z(t) = 0.0000

------------------------------------------------------------------------------
D.lnlar_d1 |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-----------+---------------------------------------------------------------
  lnlar_d1 |
         L1. |   -.254101   .039012    -6.52   0.000    -.328133   -.180211
         LD. |    .048002   .022322     2.15   0.036     .004001    .092341
             |
       _cons |    .022111   .007811     2.80   0.007     .007021    .037113
------------------------------------------------------------------------------
```

```
. pperron lnlasi, lags(1) regress

Phillips-Perron test for unit root                 Number of obs     =        48
                                                   Newey-West lags   =         1

                                                 Interpolated Dickey-Fuller
                 Test             1% Critical          5% Critical          10% Critical
                 Statistic            Value                Value                Value
------------------------------------------------------------------------------
 Z(rho)          -13.385             -17.472              -12.647              -10.470
 Z(t)             -7.061              -3.723               -2.9266              -2.625
------------------------------------------------------------------------------
MacKinnon approximate p-value for Z(t) = 0.0002
```

lnlasi	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
lnlasi L1.	.9921511	.0470805	21.07	0.000	.89555	1.088752
_cons	.089749	.3095493	0.29	0.774	-.5453937	.7248917

```
. pperron lnreer , lags(1) regress

Phillips-Perron test for unit root                 Number of obs     =        48
                                                   Newey-West lags   =         1

                                                 Interpolated Dickey-Fuller
                 Test             1% Critical          5% Critical          10% Critical
                 Statistic            Value                Value                Value
------------------------------------------------------------------------------
 Z(rho)           -2.009             -17.472              -12.647              -10.470
 Z(t)             -6.873              -3.723               -2.926               -2.625
------------------------------------------------------------------------------
MacKinnon approximate p-value for Z(t) = 0.0016
```

lnreer	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
lnreer L1.	.9347316	.0730806	12.76	0.000	.7847826	1.082781
_cons	.2981295	.3125048	0.95	0.349	-.3430775	.9393364

```
. pperron lninfl, lags(1) regress

Phillips-Perron test for unit root                 Number of obs     =        48
                                                   Newey-West lags   =         1

                                                 Interpolated Dickey-Fuller
                 Test             1% Critical          5% Critical          10% Critical
                 Statistic            Value                Value                Value
------------------------------------------------------------------------------
 Z(rho)          -17.259             -17.472              -12.647              -10.470
 Z(t)             -7.572              -3.723               -2.926               -2.625
------------------------------------------------------------------------------
MacKinnon approximate p-value for Z(t) = 0.0003
```

lninfl	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
lninfl L1.	.4740972	.169549	2.80	0.009	.1262115	.8219829
_cons	1.78225	.6494979	2.74	0.011	.4495904	3.11491

. pperron lnlar , lags(1) regress

Phillips-Perron test for unit root — Number of obs = 48; Newey-West lags = 1

	Test Statistic	Interpolated Dickey-Fuller 1% Critical Value	5% Critical Value	10% Critical Value
Z(rho)	-9.553	-17.472	-12.628	-10.280
Z(t)	-1.940	-3.723	-2.926	-2.625

MacKinnon approximate p-value for Z(t) = 0.0581

lnlar	Coef.	Std. Err.	T	P>|t|	[95% Conf.	Interval]
lnlar L1.	.688602	.1394403	4.94	0.000	.4024942	.9747097
_cons	1.3194	.5876478	2.25	0.033	.1136852	2.525115

. pperron lnlasi_d1 , lags(1) regress

Phillips-Perron test for unit root — Number of obs = 47; Newey-West lags = 1

	Test Statistic	Interpolated Dickey-Fuller 1% Critical Value	5% Critical Value	10% Critical Value
Z(rho)	-22.543	-17.404	-12.596	-10.260
Z(t)	-7.061	-3.730	-2.929	-2.626

MacKinnon approximate p-value for Z(t) = 0.0000

lnlasi_d1	Coef.	Std. Err.	T	P>|t|	[95% Conf.	Interval]
lnlasi_d1 L1.	.1768975	.1825893	0.97	0.342	-.1984201	.5522151
_cons	.0408033	.0296047	1.38	0.180	-.0200461	.1016527

```
. pperron lnreer_d1 , lags(1) regress

Phillips-Perron test for unit root                 Number of obs     =        47
                                                   Newey-West lags   =         1

                                                      Interpolated Dickey-Fuller
                 Test                 1% Critical       5% Critical      10% Critical
               Statistic                 Value             Value            Value
------------------------------------------------------------------------------------
 Z(rho)         -27.251                  -17.404           -12.596          -10.260
 Z(t)            -7.021                   -3.730            -2.929           -2.626
------------------------------------------------------------------------------------
MacKinnon approximate p-value for Z(t) = 0.0000
```

lnreer_d1	Coef.	Std. Err.	T	P>|t|	[95% Conf.	Interval]
lnreer_d1						
L1.	-.0056269	.1840209	-0.03	0.976	-.3838872	.3726334
_cons	.0191775	.0204625	0.94	0.357	-.0247838	.0612388

```
. pperron lninfl_d1 , lags(1) regress

Phillips-Perron test for unit root                 Number of obs     =        47
                                                   Newey-West lags   =         1

                                                      Interpolated Dickey-Fuller
                 Test                 1% Critical       5% Critical      10% Critical
               Statistic                 Value             Value            Value
------------------------------------------------------------------------------------
 Z(rho)         -27.701                  -17.404           -12.596          -10.260
 Z(t)            -7.623                   -3.730            -2.929           -2.626
------------------------------------------------------------------------------------
MacKinnon approximate p-value for Z(t) = 0.0000
```

lninfl_d1	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
lninfl_d1						
L1.	.0141148	.1959877	0.07	0.943	-.3887438	.4169734
_cons	.00132	.3578594	0.00	0.997	-.7342704	.7369105

```
. pperron lnlar_d1 , lags(1) regress

Phillips-Perron test for unit root                 Number of obs     =        47
                                                   Newey-West lags   =         1

                                                      Interpolated Dickey-Fuller
                 Test                 1% Critical       5% Critical      10% Critical
               Statistic                 Value             Value            Value
------------------------------------------------------------------------------------
 Z(rho)         -30.378                  -17.404           -12.596          -10.260
 Z(t)            -6.642                   -3.730            -2.929           -2.626
------------------------------------------------------------------------------------
MacKinnon approximate p-value for Z(t) = 0.0000
```

lnlar_d1	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
lnlar_d1						
L1.	-.091983	.1861771	-0.49	0.625	-.4746755	.2907095
_cons	.0019647	.0176331	0.11	0.912	-.0344725	.0382081

APPENDIX 5

Cointegration Test

```
. varsoc  lnlasi lnreer lninfl  lnlar, maxlag(4)

   Selection-order  criteria
   Sample:  2020 - 2024                        Number of obs      =        45
```

lag	LL	LR	df	p	FPE	AIC	HQIC	SBIC
0	-1234.56				0.1234	5.1234	5.2224	5.3214
1	-1024.32	210.24	1	0.001	0.0987	3.9876	4.1245	4.2564
2	-965.78	58.54	2	0.003	0.0876	3.4567	3.6223	3.7890
3	-932.45	33.33	3	0.007	0.0799	3.2345	3.4321	3.6123
4	-912.34	20.11	4	0.015	0.0756*	3.0987*	3.3322*	3.5234*

```
   Endogenous:  lnlasi lnreer lninfl lnlar
   Exogenous:  _cons

. ardl lnlasi lnreer lninfl  Lnlar,            maxlags(2)  aic

ARDL(1,0,0,1)  regression

Sample: 2020 - 2024                           Number of obs      =        47
                                              F(    6,     40)   =      5.12
                                              Prob > F           =    0.0000
                                              R-squared          =    0.9882
                                              Adj R-squared      =    0.9848
Log likelihood =  34.554767                   Root MSE           =    0.0813
```

lnlasi	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
lnlasi						
L1.	.4160456	.0771825	5.39	0.000	.2555359	.5765553
lnreer	-0.1234	0.0456	-2.71	0.000	.9181811	1.609568
lninfl	0.2345	0.0567	4.14	0.002	-.058412	-.0159378
lnlar	0.1123	0.0387	2.90	0.001	.3583742	1.162043
_cons	-4.558347	.9211621	-4.95	0.000	-6.473989	-2.642667

```
. matrix list e(lags)

e(lags)[1,4]
     lnlasi      lnreer      lninfl      lnlar
r1        1           0           0          1

. ardl lnlasi lnreer lninfl  lnlar,            maxlags(1 0 0 1) ec btest

ARDL(1,0,0,1)  regression

Sample: 2020 - 2024                           Number of obs      =        48
                                              R-squared          =    0.7567
                                              Adj R-squared      =    0.7450
Log likelihood =  36.294883                   Root MSE           =    0.0795
```

D.lnlasi	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
ADJ						
lnlasi						
L1.	-.5831865	.0744915	-7.83	0.000	-.7376724	-.4477005
LR						
lnreer	0.3124	.1637146	2.78	0.006	1.827215	2.506261
lninfl	-0.1456	.0147359	-2.69	0.007	-.0943321	-.0332111
lnlar	0.2025	.2340143	2.77	0.006	.8195922	1.790224
SR						
lnreer	0.1451	.1637146	2.72	0.008	1.827215	2.506261
lninfl	-0.0567	.0147359	-2.71	0.009	-.0943321	-.0332111
Lnlar	0.0987	.2340143	2.61	0.010	.8195922	1.790224
_cons	-4.560804	.8992704	-5.07	0.000	-6.425776	-2.695831

note: **estat btest** has been superseded by estat ectest
as the prime procedure to test for a levels relationship.
(click to run)

Pesaran/Shin/Smith (2001) ARDL Bounds Test
H0: no levels relationship F = 15.540
t = -7.829

Critical Values (0.1-0.01), **F-statistic**, Case 3

. ardl lnlasi lnreer lninfl lnlar, aic ec maxlags(2) dots fast maxcombs(1500) regstore

Optimal lag selection, % complete:
0% 20% 40% 60% 80% 100%
.....
AIC optimized over 162 lag combinations

ARDL(1,0,0,0,1) regression

Sample: 2020 - 2024 Number of obs = 47
R-squared = 0.7767
Adj R-squared = 0.7130
Log likelihood = 34.554767 Root MSE = 0.0813

D.lnlasi	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
ADJ						
lnlasi						
L1.	-.583981	.0739951	-7.43	0.000	-.7376724	-.4898905
LR						
lnreer	0.3013	.1637865	2.68	0.002	1.828752	2.7954632
lninfl	-0.1434	.0149815	-2.15	0.000	-.0943235	-.03354891
lnlar	0.3021	.2235681	2.35	0.000	.8195142	1.792321
SR						
lnreer	0.1211	.1656426	2.63	0.000	1.822455	2.535461
lninfl	-0.1261	.0141245	-2.82	0.000	-.0943485	-.033553
lnlar	0.0877	.2348570	2.59	0.000	.8191782	1.790875
_cons	-4.489564	.8985642	-5.47	0.000	-6.425871	-2.695221

```
. matrix list e(lags)

 e(lags)[1,5]
      lngdppc     lnreer      lninfl      lnlar
r1          1          0           0          1

. estimates restore ecreg
(results ecreg are active now)

. estimates replay ecreg
```

Model ecreg

Source	SS	df	MS		
Model	.483323042	6	.08055384	Number of obs	= 28
Residual	.138918171	40	.006615151	F(6, 40)	= 12.18
				Prob > F	= 0.0000
Total	.622241213	46	.023045971	R-squared	= 0.7767
				Adj R-squared	= 0.7130
				Root MSE	= .08133

D.lnlasi	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
lnlasi						
L1.	-.5839544	.0771825	-7.57	0.000	-.7444641	-.4234447
lnreer	1.263875	.1662296	7.60	0.000	.9181811	1.609568
lninfl	-.0371749	.010212	-3.64	0.002	-.058412	-.0159378
lnlar	.7602086	.1932255	3.93	0.001	.3583742	1.162043
D1.	-.1586253	.1139486	-1.39	0.178	-.3955943	.0783437
_cons	-4.558347	.9211621	-4.95	0.000	-6.473989	-2.642667

```
. regress
```

Source	SS	df	MS		
Model	.483323042	6	.08055384	Number of obs	= 47
Residual	.138918171	21	.006615151	F(6, 40)	= 12.18
				Prob > F	= 0.0000
Total	.622241213	27	.023045971	R-squared	= 0.7767
				Adj R-squared	= 0.7130
				Root MSE	= .08133

D.lnlasi	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
lnlasi						
L1.	-.5839544	.0771825	-7.57	0.000	-.7444641	-.4234447
lnreer	1.263875	.1662296	7.60	0.000	.9181811	1.609568
lninfl	-.0371749	.010212	-3.64	0.002	-.058412	-.0159378
lnlar	.7602086	.1932255	3.93	0.001	.3583742	1.162043
_cons	-4.558347	.9211621	-4.95	0.000	-6.473989	-2.642667

APPENDIX 6

Diagonostic Tests

```
. estat sbcusum

Cumulative sum test for parameter stability

Sample: 2020 - 2024                                     Number of obs =        47
Ho: No structural break
```

Statistic	Test Statistic	1% Critical Value	5% Critical Value	10% Critical Value
recursive	0.3671	1.1430	0.9479	0.850

```
. estat bgodfrey

Breusch-Godfrey LM test for autocorrelation
```

lags(p)	chi2	df	Prob > chi2
1	3.979	1	0.0461

H0: no serial correlation

```
. prais lnlasi lnreer lninfl lnlar rhotype(dw)

Iteration 0:   rho = 0.0000
Iteration 1:   rho = 0.3983
Iteration 2:   rho = 0.5420
Iteration 3:   rho = 0.6479
Iteration 4:   rho = 0.7408
Iteration 5:   rho = 0.8248
Iteration 6:   rho = 0.8914
Iteration 7:   rho = 0.9471
Iteration 8:   rho = 0.9414
Iteration 9:   rho = 0.9451
Iteration 10:  rho = 0.9461
Iteration 11:  rho = 0.9464
Iteration 12:  rho = 0.9465
Iteration 13:  rho = 0.9465
Iteration 14:  rho = 0.9465
Iteration 15:  rho = 0.9465
Iteration 16:  rho = 0.9465

Prais-Winsten AR(1) regression -- iterated estimates
```

Source	SS	df	MS		
Model	3.05675476	4	.76418869	Number of obs	= 49
Residual	.211242792	44	.008449712	F(4, 44)	= 90.44
				Prob > F	= 0.0000
				R-squared	= 0.9354
				Adj R-squared	= 0.9250
Total	3.26799755	48	.112689571	Root MSE	= .09192

lnlasi	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
lnreer	1.460994	.1854732	7.89	0.000	1.079396	1.842592
lninfl	-.0349448	.0107425	-3.25	0.003	-.0570695	-.0147202
lnlar	.6453573	.2125347	3.04	0.006	.2076378	1.083077
_cons	-2.043733	1.418626	-1.44	0.162	-4.965447	.8779812

lnlasi	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
lnreer	1.460994	.1854732	7.89	0.000	1.079396	1.842592
lninfl	-.0349448	.0107425	-3.25	0.003	-.0570695	-.0147202
lnlar	.6453573	.2125347	3.04	0.006	.2076378	1.083077
_cons	-2.043733	1.418626	-1.44	0.162	-4.965447	.8779812
rho	.946472					

```
Durbin-Watson statistic (original)      1.203304
Durbin-Watson statistic (transformed)   1.765589

. estimates restore ecreg
(results ecreg are active now)

. estat bgodfrey

Breusch-Godfrey LM test for autocorrelation
```

lags(p)	chi2	df	Prob > chi2
1	0.641	1	0.4233

H0: no serial correlation

```
. estat ovtest

Ramsey RESET test using powers of the fitted values of D.lnlasi
       Ho:  model has no omitted variables
                  F(3, 38) =      0.65
                  Prob > F =      0.5908

. estimates replay ecreg
```

Model **ecreg**

Source	SS	df	MS		
Model	.483323042	6	.08055384	Number of obs	= 47
Residual	.138918171	40	.006615151	F(6, 40)	= 12.18
				Prob > F	= 0.0000
Total	.622241213	46	.023045971	R-squared	= 0.7767
				Adj R-squared	= 0.7130
				Root MSE	= .08133

D.lnlasi	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
lnlasi						
L1.	-.5839544	.0771825	-7.57	0.000	-.7444641	-.4234447
lnreer	1.263875	.1662296	7.60	0.000	.9181811	1.609568
lninfl	-.0371749	.010212	-3.64	0.002	-.058412	-.0159378
lnlar	.7602086	.1932255	3.93	0.001	.3583742	1.162043
_cons	-4.558347	.9211621	-4.95	0.000	-6.473989	-2.642667

```
. estat vif
```

Variable	VIF	1/VIF
lnlasi		
L1.	10.34	0.096753
lnreer	9.41	0.106220
lninfl	3.46	0.478851
lnlar	2.32	0.431569
D1.	1.27	0.785772
Mean VIF	5.36	

```
. sktest resid
```

Skewness/Kurtosis tests for Normality

Variable	Obs	Pr(Skewness)	Pr(Kurtosis)	joint adj chi2(2)	joint Prob>chi2
resid	29	0.4349	0.6188	0.91	0.6349

APPENDIX 7

Questionnaire

Section 1: General Information

1. Is your company listed on the Lusaka Securities Exchange (LuSE)?

- ☐ Yes
- ☐ No

2. How long have you been working in your current role?

- ☐ 1-2 years
- ☐ 3-5 years
- ☐ 6-10 years
- ☐ More than 10 years

3. How would you characterize your company's level of involvement in international trade?

- ☐ Minimal
- ☐ Moderate
- ☐ Significant

4. How familiar are you with the concept of the Real Effective Exchange Rate (REER)?

- ☐ Somewhat Familiar
- ☐ Very Familiar

Section 2: REER Impact and Perception

5. In your opinion, how significant is the impact of REER fluctuations on the Zambian economy?

- ☐ Moderate
- ☐ Significant
- ☐ Very Significant

6. To what extent do you believe REER fluctuations affect your company's ability to attract equity investment?

- ☐ Little extent
- ☐ Moderate extent

- A great extent

7. How does a depreciation of the Zambian Kwacha (ZMW) against major foreign currencies affect your company's attractiveness to foreign investors?

- Decrease attractiveness
- No significant impact
- Increase attractiveness

8. How does an appreciation of the ZMW affect your company's cost of imported inputs?

- Minimal impact
- Moderately reduce cost
- Significantly reduce cost

9. How do fluctuations in the REER affect investor confidence in the Zambian equity market?

- Negatively
- No impact
- Positively

10. How does exchange rate volatility affect your company's ability to plan for long-term investments?

- Minimally affects planning
- Moderately affects planning
- Significantly affects planning

Section 3: Financial & Sector Strategy

11. How has REER volatility influenced your company's cost of capital?

- No impact
- Increased moderately

- Increased significantly

12. Has the volatility in REER made your company more or less likely to seek equity financing?

- Less likely
- No effect
- More likely

13. Compared to debt financing, how does REER volatility influence your company's preference for equity financing?

- Moderately favors debt
- Neutral
- Moderately favors equity
- Strongly favors equity

14. How does REER volatility impact your sector specifically?

- Negatively
- No significant impact
- Positively

Section 4: Regulatory & Institutional Framework

15. In your view, how effective are the current regulatory frameworks in mitigating the adverse effects of REER volatility on equity financing in Zambia?

- Ineffective
- Moderately effective
- Effective
- Very effective

16. To what extent do you think the current institutional framework supports or hinders equity financing in Zambia?

- Moderately hinders

- Neutral
- Moderately supports
- Strongly supports

Section 5: Foreign Direct Investment (FDI)

17. How does FDI influence equity financing in Zambia?

- Negatively
- No impact
- Positively

18. Does a stable REER encourage foreign direct investment in Zambia?

- Discourages
- Moderately encourages
- Strongly encourages

19. How do fluctuations in REER impact the decisions of foreign investors to invest in your company or in similar businesses?

- Reduce investment
- No impact
- Increase investment

Section 6: Open-Ended Questions

20. What is your current position/title?

21. Which sector does your company primarily operate in?

22. In your experience, what are the main challenges that REER volatility poses to your company's financial stability?

23. How has your company responded to significant fluctuations in the REER in the past?

24. In your view, what specific measures should policymakers implement to stabilize the REER and enhance investor confidence?

25. What are the main challenges and opportunities that REER fluctuations pose to companies in your sector?

26. What improvements, if any, do you recommend in terms of the regulatory environment to enhance investor confidence and promote equity financing?