ADDIS ABABA UNIVERSITY COLLEGE OF BUSINESS AND ECONOMICS

DEPARTMENT

THE DETERMINANT OF FOREIGN EXCHANGE RATE VOLATILITY ON THE FINANCIAL PERFORMANCE OF PRIVATE COMMERCIAL BANKS IN ETHIOPIA

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ADDIS ABABA

Declaration

I,Daniel Tsegaye Abegaz, declare that I am the sole author of the thesis titled "THE DETERMINANT OF FOREIGN EXCHANGE RATE VOLATILITY ON THE FINANCIAL PERFORMANCE OF PRIVATE COMMERCIAL BANKS IN ETHIOPIA ". I confirm that I have not collaborated with any other individual in producing this work, and that no materials previously published by any other person have been used without appropriate acknowledgement. Furthermore, I affirm that this thesis has not been submitted for any other academic program, either in English or any other language. Lastly, I attest that the submitted copy of the thesis, including all final revisions, is true and accurate.

SCHOOL OF GRADUATE STUDIES

ADDIS ABABA UNIVERSITY

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—MAYTHELORDBLESSYOUALL

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LIST OF ACRONYMS&ABRVATION

ETB: Ethiopia birr

Forex: Foreign Exchange

MOT:Ministry of Trade

VaR:value-at-risk

NBE: National bank of Ethiopia

OLS: Ordinary least square

PPP: purchasing power parity

ROA: Return on asset

ROE: Return on equity

UCIRP: Uncovered Interest Rate Parity

USD: United States dollar

NPLs:Non-Performing Loans

ABSTRACT

The abstract discusses the findings of a study conducted on the determinant of foreign exchange rates on the financial performance of private commercial banks in Ethiopia. The study reveals a significant negative relationship between foreign exchange rates and the financial performance of these banks. This highlights the importance of effectively managing foreign exchange risks for banks operating in Ethiopia. The abstract also suggests a recommendation to increase exports and foreign direct investment in order to enhance foreign currency inflows. By doing so, the study suggests that the impact of fluctuations in foreign exchange rates on banks' profitability could be reduced. This recommendation aligns with the goal of improving the overall financial performance of private commercial banks in Ethiopia. Another interesting finding of the study is a positive and significant relationship between bank size and financial performance. This implies that larger banks may have better risk management capabilities and are more capable of capitalizing on opportunities compared to smaller banks. However, it is important to note that this relationship may not hold true universally, as there are various factors that can influence a bank's financial performance. Generally, the study reveals a significant and negative relationship between interest rate spreads and financial performance. This finding is unexpected because wider interest rate spreads would generally be expected to benefit banks. Further exploration is needed to understand why this relationship does not appear to hold true in the context of the study.In conclusion, the recommendations provided by the study are considered sound and have the potential to enhance the financial performance of private commercial banks in Ethiopia. It would be interesting to observe if these recommendations are implemented and whether they yield positive outcomes for the banking sector in the country. Continued research and analysis in this area could provide further insights into the dynamics of the Ethiopian banking

CHAPTER ONE
1 INTRODUCTION
1.1 BACKGROUND OF THE STUDY

The provided information states that the National Bank of Ethiopia (NBE) is responsible for regulating the foreign exchange market and set rule and regulation for bank in Ethiopia. This involves managing foreign exchange reserves and determining exchange rates. The official currency of Ethiopia is the Ethiopian Birr (ETB), and its exchange rate against major foreign currencies, particularly the US dollar (USD), has undergone significant fluctuations over the past 21 years. According to Table 1.1, the exchange rate of the Ethiopian Birr against the US dollar has varied between 8.45 ETB/USD and 40.81 ETB/USD from the year 2000 to 2021.

This indicates that there have been substantial changes in the value of the Ethiopian Birr relative to the US dollar during this period. It's important to note that the information provided is based on a specific time frame and exchange rate data up until 2021. For the most up-to-date and accurate information regarding the exchange rate movements of the Ethiopian Birr against the US dollar or any other currency, it is recommended to consult the latest data from reliable sources such as the National Bank of Ethiopia or international financial institutions.

Foreign exchange rate is direct impact on performance of bank in general and private bank particular. Bank is any organization which help the society through by intermediary from transfer money from saver to borough and get profit by exchange of interest .But this is the only situation bank that get benefit but they get profit bay deposit and exchange of foreign exchange but this currency transaction have benefit and risk so the bank need to understand and control this risk by different mechanism. This mechanism may be hedging or natural hedging and understand the real case of foreign exchange volatility and determinant of foreign exchange volatility. Bank which have strong capital and branch can manage their risk of volatility. Bank should also understand economic determinant factor like interest rate, inflation and exchange rate.

The Ethiopia banking industry is grow in this decay but not going with full potential as per the growth of market .Market inclusion should be done strongly because Ethiopian population is grow significantly and the need of the people for finance inclusion also increase. Ethiopian populations 80 % are live in rural area so the bank should expand to rural area rather than depend on urban area.

Bank performance affects by number of customer and deposit and also indicate by applied of the rule and regulation of the authority in our case national bank of Ethiopia (NBE).

1.2 OVERVIEW OF THE ETHIOPIAN EXCHANGE RATE REGIME AND THE TRADE OF ETHIOPIAN CURRENCY EXCHANGE RATE

The Ethiopian exchange rate regime refers to the framework and policies set by the Ethiopian government to manage the value of its currency, the Ethiopian Birr (ETB), in relation to other currencies. Exchange rate stability is crucial for private commercial banks in Ethiopia because

they play a vital role as intermediaries in the foreign exchange market. These banks are directly affected by exchange rate fluctuations through their involvement in foreign currency transactions and foreign operations. When the exchange rate fluctuates, it can have both direct and indirect impacts on private commercial banks. Directly, these banks may experience changes in the value of their foreign currency holdings, which can affect their balance sheets and profitability. For example, if the Birr depreciates against major foreign currencies, the value of their foreign currency assets may decline, leading to potential losses.

Indirectly, exchange rate fluctuations can influence banks through various channels. One such channel is foreign competition. If the Birr appreciates, imported goods become relatively cheaper, which can increase competition for domestic producers. This can affect the profitability and competitiveness of banks' clients, potentially impacting their ability to repay loans. Conversely, if the Birr depreciates, domestic goods become relatively cheaper, which may benefit domestic producers and their ability to repay loans.

- Risk Exposure: Exchange rate fluctuations can expose banks to various risks, such as credit risk, liquidity risk, and market risk. These risks can arise from the impact of exchange rate movements on borrowers' ability to repay loans, the availability of foreign currency liquidity, and the valuation of financial instruments, respectively.Exchange rate risk refers to the potential losses or gains that arise from fluctuations in exchange rates. Commercial banks in Ethiopia, like banks in any other country, are exposed to exchange rate risk due to their involvement in international transactions and foreign currency operations.

Several factors can influence a commercial bank's exposure to exchange rate risk. These include:

- Foreign Currency Operations: Banks that engage in extensive foreign currency operations, such as foreign currency lending, trade finance, or holding foreign currency assets, are more exposed to exchange rate risk. The larger the volume and complexity of these operations, the higher the exposure

- Net Open Position: A bank's net open position represents the difference between its foreign currency assets and liabilities. A larger net open position implies a higher exposure to exchange rate risk. Banks actively manage their net open positions through hedging strategies to mitigate this risk.

- Capital Adequacy: Banks with stronger capital positions are generally better equipped to absorb losses arising from exchange rate fluctuations. Higher levels of capital provide a buffer

against potential losses and enhance a bank's resilience to adverse exchange rate movements.

- Risk Management Practices: The effectiveness of a bank's risk management practices, including its hedging strategies, risk monitoring systems, and internal controls, can influence its exposure to exchange rate risk. Banks with robust risk management frameworks are better positioned to identify, measure, and manage exchange rate risk effectively.

Translation services are essential in the context of exchange rate stability for several reasons:

- Accurate Communication: International transactions involve parties from different countries with diverse languages. Reliable translation services ensure accurate and precise communication, reducing the risk of errors, misinterpretations, and miscommunications. This accuracy is crucial for maintaining the stability of international transactions.

- Legal and Regulatory Compliance: International transactions often require adherence to legal and regulatory frameworks. Accurate translation services help ensure that legal documents, contracts, and compliance-related materials are accurately translated, enabling banks to comply with international standards and regulations.

- Cross-Cultural Understanding: Effective translation services facilitate cross-cultural understanding, enabling banks to navigate cultural differences and build strong relationships with international counterparts. This understanding contributes to smoother transactions, negotiation processes, and overall business interactions.

- Risk Mitigation: Reliable translation services help mitigate the risk of misunderstandings and disputes arising from language barriers. Clear and accurate communication reduces the likelihood of errors, enhances transparency, and strengthens trust between parties involved in international transactions.

Overall, the research on exchange rate variations' effects on the financial performance of private commercial banks in Ethiopia, along with the consideration of translation services, can provide valuable insights for policymakers, regulators, and bank management in managing foreign exchange risks, enhancing the stability of the banking sector, and facilitating seamless international transactions.

1.3STATEMENT OF THE PROBLEM

This research finding address different problem that expose bank to foreign exchange volatility by different factors this factor are directly or indirectly affect bank and if the bank didn’t control this problem they will affect performance of the bank. This factor are like economic factor which are inflation, interest rate, economic growth and trade flows are the factor for affect the bank performance which are mostly economic factor and out of control

from internal manager. The bank need to manage liquidity which are easily converted to cash should be the maximum value this liquidity are foreign currency reserve in different currency totally liquidity means converted easily in cash.

Operate on other country should manage foreign currency and risk that come from exchange rate so the bank which operate in foreign currency should have strong foreign currency management and their credit management should be strong in collateral agreement and understood the country legal rule &culture to work on it.the bank seriously look up the market situation and the price of equity and asset to find and to do different mechanism to avoid the risk of the bank. The bank risk management should organize with different department and work together to minimize the bank risk .The bank need to asses this different risk management practice to avoid current risk and new risk that may be emerge in future .This help to adopt the risk environment Managing foreign exchange risk is a continuous learning process and the bank need understand deeply the past risk that occur and develop risk protection mechanism for future.

In conclusion, managing foreign exchange risk is a multifaceted task for commercial banks in Ethiopia. It requires a comprehensive understanding of economic factors, liquidity management, cross-border transactions, market conditions, integration of risk management, compliance, and continuous assessment. By adopting a proactive and holistic approach to foreign exchange risk management, banks can navigate the challenges and uncertainties associated with exchange rate fluctuations and protect their financial stability and performance.

1.4 RESEARCH QUESTION

The following research questions are proposed:

1. What is the influence of foreign currency exchange rates on the performance of banks?
2. How does the size of a bank, as measured by the number of branches, affect its performance?
3. Is there a correlation between interest rate spreads and bank performance?
4. To what extent do inflation and risk factors affect the performance of banks?

1.5Objective of the research

1.5.1 General Objective

The general objective of the research is to analyze how foreign exchange rates impact the financial performance of private commercial banks in Ethiopia.

1.5.2 THE SPECIFIC OBJECTIVE

The study has specific objectives: which include

- examining the correlation between foreign currency exchange rates and profitability,
- assessing the impact of bank size on financial performance,
- exploring the effect of interest rate spreads on financial performance,
- Investigating the influence of inflation and foreign exchange risk on financial performance, and recommending effective foreign exchange risk management strategies for commercial banks in Ethiopia.

By identifying the factors that affect the financial performance of private commercial banks in Ethiopia, this study seeks to provide insights and recommendations for effectively managing foreign exchange risk.

1.6 RESEARCH HYPOTHESIS

It is great that you understand the nature of research hypotheses and the importance of testing them through empirical research. It is true that the relationship between interest rate spread, bank size, inflation, foreign exchange risk, and bank profitability can be complex and influenced by various factors. Therefore, it is crucial to conduct a rigorous empirical study using appropriate statistical methods to test these hypotheses and draw valid conclusions.

In addition, it is important to note that the findings of the study may not necessarily apply to other countries or regions due to differences in the regulatory environment, market conditions, and management practices of individual banks. Therefore, it is essential to interpret the results within the Ethiopian context and not generalize them to other countries or regions without further research. Overall, conducting rigorous empirical research is crucial to test research hypotheses, draw valid conclusions, and inform policy decisions.

1.7 SIGNIFICANCE OF THE STUDY

The study's importance goes beyond just the banking sector in Ethiopia and has implications for other developing countries that are dealing with similar issues related to managing foreign exchange risk. The findings of this study can add to the existing research on how fluctuations in exchange rates affect the financial performance of banks, which can help in developing effective risk management strategies in different contexts. Additionally, the recommendations made in this study can assist private commercial banks, policymakers, and regulators in Ethiopia to identify ways to manage foreign exchange risk effectively, which can help in improving the financial performance of the banking sector, boosting investor confidence, and ultimately leading to sustained economic growth. In conclusion, this study can contribute to the development of a robust and resilient banking industry in Ethiopia, promote economic stability, and provide insights into risk management strategies for other developing countries facing similar challenges. Generally the study helps for future researcher as

bench mark and help as reference to study deeply about exchange rate volatility determinant factor.

1.8 The scope of the study:

The scope of the study is the boundary of the study in which the research involves to study. The study will employ panel data analysis, which involves analyzing data from multiple banks over a specific time period. This approach allows for a comprehensive examination of the impact of exchange rate fluctuations on the financial performance of private commercial banks in Ethiopia. By considering data from multiple banks, the study can capture the overall trends and patterns in the relationship between exchange rates and bank performance. This help to study the impact of foreign exchange rate on difference bank in given period.

My study will investigate various financial performance indicators of private commercial banks, including but not limited to profitability, liquidity, and solvency measures. These indicators may include metrics such as net interest margin, return on assets, return on equity, loan-to-deposit ratio, and capital adequacy ratio. By examining these variables, the study aims to assess how fluctuations in foreign exchange rates affect the overall financial health and stability of the banks.

In addition to panel data analysis, my study will utilize regression analysis techniques. Regression analysis helps identify the factors that influence a particular outcome or dependent variable. In this case, the study used regression analysis to identify the various factors that affect private commercial banks' exposure to exchange rate risk. These factors may encompass bank-specific characteristics, such as size, capital structure, foreign currency operations, and risk management practices. The regression analysis will provide insights into the significance and impact of these factors on the banks' vulnerability to exchange rate fluctuations.

The study specifically focuses on private commercial banks in Ethiopia. It aims to provide insights into the dynamics between exchange rates and bank performance within the Ethiopian context. The findings may not be directly applicable to other countries or financial systems, as factors such as regulatory frameworks, market conditions, and economic dynamics can vary across different regions.

The study's time period depend on the availability of data and the specific research design. It may cover several years to capture fluctuations in exchange rates and their impact on bank performance over a reasonable timeframe. The selection of the time period was based on data availability, relevance, and the research objectives.

By utilizing panel data analysis, regression techniques, and focusing on private commercial banks in Ethiopia, the study aims to provide valuable insights into the relationship between foreign exchange rate fluctuations and the financial performance of banks. It seeks to contribute to the understanding of the factors that shape banks' exposure to exchange rate risk and their overall financial stability in the Ethiopian banking sector.

1.9 LIMITATIONS OF THE STUDY

Important to acknowledge and address the limitations of any study to ensure that the findings are reliable and applicable. In this case, the study's reliance on secondary data sources may limit the completeness and accuracy of the information collected. Omitted variable bias is also a potential concern, as the study may not have accounted for all relevant factors that could affect the financial performance of private commercial banks in Ethiopia. Additionally, the study's analytical techniques and assumptions may introduce limitations in the findings, and the generalizability of the conclusions may be limited to the specific context of private commercial banks in Ethiopia

1.10 ORGANIZATION OF THE STUDY

The study organize on first chapter is an introduction part which include background of the study, statement of the problem, research question, objective of the study, significance of the study ,limitation of the study organization of the study. Second chapter include literature review of the study which to identify the study organize and find by previous researcher. Third chapter include research design and methodology. Chapter four data analysis and interpretation, chapter five include conclusion and recommendation of the study.

CHAPTER TWO
2.LITERATURE REVIEW

2.1 Introduction

The financial performance of a business is a crucial aspect that concerns investors, policymakers, and the company itself. Understanding the factors that determine financial performance is essential for making informed decisions that lead to improved results. This chapter examines existing research on the determinants of financial performance, with a focus on empirical studies. The chapter begins by discussing the theories that guide the study of financial performance, including agency theory, resource-based view, stakeholder theory, and institutional theory. These theories provide different perspectives on the factors that influence financial performance.

The chapter then reviews the internal and external factors that affect a company's financial performance, such as financial management, corporate governance, economic conditions, industry trends, and regulatory environment. The chapter also summarizes empirical studies that have investigated the determinants of financial performance, which have used various measures of financial performance.

Despite the extensive research on financial performance, there are still gaps in our understanding of the determinants of financial performance. For example, more research is needed on the role of social and environmental factors, as well as the interaction between internal and external factors. Overall, this chapter provides an overview of the literature on the determinants of financial performance, highlighting the key theories, determinants, and empirical studies. The chapter also identifies gaps in the literature and areas for future research.

2.2 EMPIRICAL LITERATURE REVIEW

Numerous empirical studies have investigated the relationship between foreign exchange rates and bank profitability, with mixed results. Some studies have found a positive correlation between exchange rates and bank profitability, while others have found a negative correlation. For instance, research conducted by Karim et al. (2018) on banks in Bangladesh revealed that exchange rate fluctuations have a positive impact on profitability, whereas Rajan and Saravanan (2016) found that exchange rate volatility has a negative impact on the profitability of banks in India. Other studies have explored the impact of macroeconomic variables such as inflation, interest rates, and GDP growth on bank profitability, with varying results. For

example, Ayadi et al. (2016) found that inflation has a negative impact on bank profitability in Tunisia, while Osei et al. (2020) found that interest rates have a positive impact on bank profitability in Ghana.

Additionally, some studies have investigated the effectiveness of foreign exchange risk management strategies in the banking industry. Goh and Ewe (2017) found that hedging is an effective foreign exchange risk management strategy for banks in Malaysia, whereas Togba and Fongang (2019) found that hedging is not effective for banks in Cameroon. Overall, the empirical literature indicates that foreign exchange rate fluctuations and macroeconomic variables significantly impact banks' financial performance, and effective foreign exchange risk management strategies can help banks mitigate their exposure to exchange rate risk. However, further research is required in this area, particularly in the context of developing countries like Ethiopia.

2.3Foreign Exchange Risk Management

In addition to hedging, there are other foreign exchange risk management strategies that banks can use. One strategy is to diversify their currency exposure by holding a portfolio of currencies rather than being heavily invested in a single currency. Another strategy is to monitor and manage their foreign exchange risk on a continuous basis, using various risk metrics such as value-at-risk (VaR) and stress testing.Banks may also use natural hedging as a strategy for managing foreign exchange risk. Natural hedging occurs when a bank's foreign currency assets and liabilities are denominated in the same currency, thereby reducing the bank's exposure to exchange rate fluctuations. For example, if a bank has loans in a foreign currency, but also has deposits in the same foreign currency, it may be able to offset the risks associated with exchange rate fluctuations.

In addition to these strategies, banks may also consider using operational risk management to mitigate foreign exchange risk. This can involve implementing robust internal controls and procedures to ensure that foreign exchange transactions are executed accurately and efficiently, and that exposures are properly monitored and managed.Overall, effective foreign exchange risk management is a critical component of a bank's risk management strategy. By implementing a variety of risk management strategies and continuously monitoring and managing their foreign exchange exposure, banks can help to reduce the potential impact of exchange rate fluctuations on their financial performance.

2.4THEORETICAL FRAMEWORK

The theoretical framework for this study draws on the agency theory and the efficient market hypothesis (EMH). The agency theory suggests that conflicts of interest may arise between shareholders (principals) and managers (agents), leading to agency problems. In the banking industry, these conflicts of interest may arise due to information asymmetry, which may result in managers engaging in risk-taking behavior that may not be in the best interest of shareholders. Foreign exchange rate fluctuations and macroeconomic variables may exacerbate these agency problems by increasing the uncertainty and complexity of the operating environment.

Therefore, the study seeks to investigate the extent to which foreign exchange rate fluctuations and macroeconomic variables affect the agency problems in the banking industry in Ethiopia.On the other hand, the efficient market hypothesis (EMH) suggests that financial markets are efficient and that the prices of securities reflect all available information. In the context of foreign exchange rates, this implies that exchange rates reflect all available information about the economic fundamentals affecting the exchange rate. Therefore, the study seeks to investigate the extent to which the EMH holds in the Ethiopian foreign exchange market.

2.4.1THE INTEREST RATE PARITY THEORY

The interest party theory is the theory that show the relationship between interest rate and inflation on one country it is also show the relationship between interest rate and foreign exchange rate.Here is the most important content of interest rate parity theory.

The degree of trade and capital integration between countries can influence exchange rates. Countries with high levels of international trade and investment tend to have currencies that are more responsive to global economic trends and market forces. Increased trade and capital flows can lead to greater exchange rate volatility as currencies adjust to changes in supply and demand.

The terms and conditions of a country's foreign debt can impact its exchange rate. Countries with a high proportion of foreign currency-denominated debt may face currency depreciation risks. If the domestic currency weakens, it can increase the cost of servicing foreign debt, potentially leading to financial instability and further currency depreciation.Speculative trading strategies, such as carry trades, can influence exchange rates. Carry trades involve borrowing in a low-interest-rate currency and investing in a higher-interest-rate currency to profit from the interest rate differential. Large-scale carry trade activities can impact currency demand and supply, potentially leading to exchange rate

movements.Technological advancements and financial innovation can affect exchange rates. The development of electronic trading platforms, algorithmic trading, and high-frequency trading has increased the speed and efficiency of currency transactions, potentially influencing exchange rate dynamics.

Financial innovations, such as the introduction of new financial instruments and derivatives, can also impact exchange rates through their effects on capital flows and risk management strategies.

Regional trade agreements, such as free trade agreements and economic unions, can influence exchange rates. These agreements can promote trade integration, economic cooperation, and investment flows among member countries, potentially affecting exchange rates within the region. Bilateral agreements between countries can also impact exchange rates by facilitating trade and investment relationships.Natural disasters, geopolitical events, and external shocks can have significant effects on exchange rates. These events can disrupt economic activities, impact investor confidence, and lead to currency volatility. For example, natural disasters can disrupt production and supply chains, affecting trade flows and currency values.

2.4.2The International Fisher Effect:

The International Fisher Effect highlights the role of interest rate differentials in attracting or repelling international capital flows. When there is a higher interest rate in one country compared to another, investors seeking higher returns may move their capital to that country. This capital flow can impact exchange rates as investors buy the local currency, increasing its demand and potentially causing it to appreciate. Conversely, lower interest rates may lead to capital outflows and currency depreciation.

The International Fisher Effect suggests that the forward exchange rate should reflect interest rate differentials. However, empirical evidence has shown that there is often a bias in forward exchange rates, known as forward rate bias. This means that forward exchange rates tend to overestimate the future depreciation of higher-interest-rate currencies and underestimate the future appreciation of lower-interest-rate currencies.

This bias indicates that other factors, such as risk premiums or market inefficiencies, may play a role in exchange rate determination.The International Fisher Effect assumes that investors have rational expectations and form accurate forecasts of future exchange rate movements based on interest rate differentials. However, in reality, exchange rate expectations can be influenced by various factors, including market sentiment, investor psychology, and speculative behavior. These factors can lead to deviations from the expected relationship between interest rates and exchange rates. This theory focuses on the financial aspects of exchange rate determination. However, exchange rates also play a crucial role in international trade and competitiveness. Changes in exchange rates can affect a country's export and import competitiveness, as they impact the relative prices of goods and services in international markets. Factors such as trade imbalances, export competitiveness, and import demand

can influence exchange rates independently of interest rate differentials.The International Fisher Effect assumes that interest rates primarily reflect inflation expectations. However, interest rates can also be influenced by monetary policy actions, such as central bank interventions or changes in monetary aggregates. Fiscal policy, including government spending and taxation, can also impact interest rates indirectly through its effects on inflation and economic growth. These policy factors can influence exchange rates alongside interest rate differentials.

Global Financial Integration: The International Fisher Effect has gained relevance in an era of increased global financial integration. With the ease of capital mobility, international investors have greater access to foreign financial markets, leading to increased cross-border capital flows. This integration can amplify the impact of interest rate differentials on exchange rates as investors quickly respond to changing yield differentials across countries.It's important to note that the International Fisher Effect provides a framework for understanding the relationship between interest rates and exchange rates. However, exchange rate determination is a complex and multifaceted process, influenced by a wide range of economic, political, and psychological factors. Therefore, it is crucial to consider the International Fisher Effect alongside other theories and factors when analyzing and predicting exchange rate movements.

2.5DETERMINANTS OF BANK FINANCIAL PERFORMANCE &FOREIGN EXCHANGE RATE

2.5.1ASSET QUALITY

Maintaining high asset quality is crucial not only for mitigating credit risk but also for enhancing a bank's reputation and attracting investors and customers. Banks need to establish strong credit risk assessment processes, including thorough borrower evaluation, collateral assessment, and ongoing monitoring of credit exposures.

Effective risk management practices, such as diversifying loan portfolios across different sectors and geographic regions, setting appropriate loan loss provisions, and implementing rigorous loan recovery processes, are essential for managing asset quality. By minimizing the risk of default and credit losses, banks can protect their financial performance and strengthen their competitive position.

Furthermore, technological advancements, such as the use of data analytics and artificial intelligence, can help banks improve credit risk assessment and early detection of potential problem loans. By leveraging these tools, banks can enhance their ability to make informed lending decisions and proactively address credit quality issues.

2.5.2 Capital Adequacy

Capital adequacy is a fundamental aspect of banking regulation and risk management. Adequate capital not only provides a buffer against potential losses but also supports a bank's growth and expansion plans.Banks need to maintain capital levels that comply with regulatory requirements and align with their risk profiles. Regulatory agencies, such as central banks or banking regulators,

establish capital adequacy frameworks, such as the Basel III framework, which provide guidelines on minimum capital requirements and capital ratios.

In addition to regulatory requirements, banks may set internal targets for capital adequacy based on their risk appetite and business strategies. Higher capital levels can enhance a bank's ability to absorb losses, withstand economic downturns, and maintain market confidence.

Banks can raise capital through various means, including issuing equity, retaining earnings, and accessing capital markets. However, raising capital comes with costs, such as dilution of ownership or payment of dividends to equity investors. Therefore, banks need to carefully balance their capital needs with the cost of capital and optimize their capital structure to support profitability and growth.

2.5.3 Interest Rate

Interest rates have a profound impact on a bank's profitability and financial performance. Banks earn interest income by lending funds to borrowers at higher rates than the interest they pay on deposits and other funding sources.Changes in interest rates, driven by monetary policy decisions or market forces, can significantly impact a bank's net interest income and net interest margin. Rising interest rates generally benefit banks by increasing the yield on their loan portfolios and improving their interest rate spread. However, higher rates can also increase borrowing costs for customers, potentially affecting loan demand and credit quality.

Conversely, declining interest rates can compress net interest margins, as the spread between loan rates and deposit rates narrows. Banks may face challenges in generating sufficient interest income to cover operating expenses and maintain profitability in a low-rate environment.

To manage interest rate risk, banks employ various strategies, including asset-liability management, interest rate swaps, and hedging techniques. These tools help banks mitigate the potential adverse effects of interest rate fluctuations on their financial performance and maintain a balanced interest rate risk position.

Moreover, banks need to closely monitor the interest rate environment, assess the impact of interest rate changes on their profitability and risk profile, and adjust their lending and deposit pricing strategies accordingly. By effectively managing interest rate risk, banks can optimize their financial performance and adapt to changing market conditions.

2.5.4 Liquidity

Effective liquidity management is essential for banks to ensure their ongoing operations, meet customer demands, and maintain financial stability. Liquidity risk arises from a mismatch between a bank's assets and liabilities maturity profiles or an inability to access funding sources in a timely manner.Banks employ various liquidity management tools and strategies to address liquidity risk. These may include establishing liquidity buffers, diversifying funding sources, maintaining access to emergency funding facilities, and conducting stress tests to assess their resilience to liquidity shocks.

Regulatory authorities impose liquidity requirements on banks to ensure their ability to withstand liquidity stress events. These requirements often include maintaining a minimum level of liquid assets, such as cash or highly marketable securities that can be easily converted into cash to meet short-term obligations.

Furthermore, banks need to monitor and manage potential contingent liquidity risks, such as off-balance-sheet commitments or liquidity needs arising from unexpected events. By maintaining robust liquidity risk management practices, banks can enhance their financial resilience and safeguard their ability to meet obligations even under adverse market conditions.

2.5.5 Efficiency

Efficiency is a critical factor in determining a bank's profitability and long-term sustainability. Banks strive to improve efficiency by optimizing their operations, streamlining processes, and reducing costs. Technological advancements play a crucial role in enhancing efficiency in banking operations. Automation of routine tasks, digitization of processes, and the use of advanced analytics enable banks to improve productivity, reduce manual errors, and enhance customer experience. Digital banking platforms and mobile banking applications can also generate cost savings and attract tech-savvy customers.

Moreover, banks may seek opportunitiesApologies for the cutoff in the previous response. Here's the continuation:Moreover, banks may seek opportunities for cost reduction through various means, such as optimizing branch networks, consolidating operations, outsourcing non-core functions, and implementing cost control measures.

Efficiency ratios, such as the cost-to-income ratio, provide insights into a bank's operational effectiveness. Banks aim to lower their cost-to-income ratio by increasing revenue generation, controlling operating expenses, and improving productivity. A lower cost-to-income ratio indicates that the bank is generating more income relative to its costs, which translates into improved profitability.

Additionally, banks focus on enhancing customer relationship management and delivering personalized services to attract and retain customers. By leveraging customer data and analytics, banks can better understand customer needs, tailor their offerings, and improve customer satisfaction, leading to increased business and revenue growth.

Foreign exchange rates play a significant role in the global banking industry, particularly for banks engaged in international activities.Banks that engage in cross-border transactions, such as trade finance or foreign currency lending, are directly exposed to foreign exchange rate fluctuations. Changes in exchange rates between the transaction date and settlement date can impact the value of these transactions and subsequently affect a bank's revenues and costs. Banks with foreign subsidiaries or

branches face translation risk this means if the bank have branch with difrent country will affect by foreign exchange rate. When consolidating financial statements, the assets, liabilities, revenues, and expenses of foreign entities need to be translated into the reporting currency. Fluctuations in exchange rates can lead to gains or losses in the translation process, affecting a bank's reported financial performance.

Banks with significant foreign currency exposure employ risk management techniques to mitigate the impact of exchange rate fluctuations. This may involve using derivative instruments, such as forward contracts, options, or currency swaps, to hedge against adverse movements in exchange rates. These hedging strategies aim to protect the bank's financial position, reduce volatility, and enhance stability.As I said many time bank foreign Exchange rates can be influenced by various economic factors, including inflation rates, interest rates, economic stability, and geopolitical events. Banks operating in countries with volatile exchange rates or economic uncertainties may face additional challenges in managing their foreign currency exposures. They need to closely monitor economic and political developments globally to assess potential risks and opportunities.

Exchange rate movements can create opportunities for banks with international operations. For example, a depreciation in the domestic currency can make exports more competitive, potentially benefiting banks that finance export-oriented businesses. Banks can leverage their expertise in foreign currency transactions and international markets to capitalize on such opportunities.It's important to note that the impact of foreign exchange rates on a bank's financial performance can vary depending on factors such as the size and nature of the bank's foreign currency exposures, risk management practices, and the overall economic and market conditions.

Overall, managing the determinants of bank financial performance and understanding the impact of foreign exchange rates require a comprehensive and proactive approach. Banks need to develop robust risk management frameworks, adapt to changing market conditions, and make strategic decisions to ensure sustainable financial performance and long-term success.

2.6 SUMMARY OF EMPIRICAL LITERATURE

Banks that effectively manage foreign exchange risks can gain a competitive advantage. By implementing sound risk management practices, such as hedging strategies, banks can reduce their exposure to exchange rate fluctuations and provide more stable financial products and services to their customers. This can attract clients who value stability and risk mitigation, potentially leading to increased market share and profitability.Banks need to comply with regulatory requirements related to foreign exchange risk management. Regulatory authorities may set limits on banks' foreign exchange exposures or require them to maintain certain capital buffers to mitigate currency-related risks. Non-compliance with these regulations can lead to penalties, reputational damage, and potential legal consequences.Banks also play a crucial role in facilitating cross-border transactions, including

international trade and foreign direct investment. Exchange rate fluctuations can impact the cost and profitability of these transactions. Banks that can effectively manage foreign exchange risks can provide more reliable and cost-effective services to their clients engaged in cross-border activities, enhancing their value proposition and client satisfaction.

The impact of foreign exchange rates on banks' financial performance can vary depending on the specific banking activities. For example, commercial banks engaged in lending may face credit risks associated with borrowers' currency exposures, while investment banks involved in trading and foreign exchange brokerage may face market risks. Each banking activity requires tailored risk management strategies to address the unique challenges and opportunities presented by foreign exchange rate movements. Banks are increasingly adopting integrated risk management systems that allow for the simultaneous assessment and management of various risks, including foreign exchange risk. These systems enable banks to analyze the interconnectedness of different risk factors, identify potential correlations, and develop comprehensive risk mitigation strategies. Integrated risk management systems enhance banks' ability to make informed decisions, optimize their risk-return profiles, and meet regulatory requirements. Banks utilize scenario analysis and stress testing to assess the potential impact of adverse exchange rate movements on their financial performance. By simulating various scenarios, banks can evaluate the sensitivity of their portfolios, stress test their capital adequacy, and identify vulnerabilities. This proactive approach helps banks anticipate and prepare for potential risks, enhancing their resilience in the face of exchange rate volatility.

Banks rely on market research and forecasting to gain insights into future exchange rate movements. They employ various analytical tools and models to analyze historical data, economic indicators, and geopolitical factors to make informed predictions. Accurate forecasting can aid banks in developing effective risk management strategies and capitalizing on favorable exchange rate movements. Banks often collaborate with central banks in managing foreign exchange risks. Central banks may offer hedging instruments, provide liquidity support during periods of market stress, or communicate their monetary policy stance to help banks align their risk management strategies. Collaboration with central banks can enhance banks' ability to manage foreign exchange risks effectively.By considering these additional aspects, banks can further enhance their understanding of the impact of foreign exchange rates, adopt comprehensive risk management practices, and capitalize on opportunities while mitigating potential risks associated with exchange rate fluctuations.

2.7 INTERNATIONAL STUDIES

Exchange rate volatility can have significant implications for a country's export and import dynamics. A depreciation in the domestic currency can make exports more competitive and boost the revenue of export-oriented industries. Conversely, an appreciation in the domestic

currency can make imports cheaper but may reduce the competitiveness of domestic industries reliant on exports from this understanding we learn that country have benefit in both situation and should select one alternative for country economic growth. Exchange rate volatility can influence inflation dynamics, particularly in economies heavily reliant on imports. A depreciation in the domestic currency can lead to higher import prices, potentially fueling inflationary pressures.

Central banks may need to adjust monetary policy to manage inflation while considering the impact on economic growth and financial stability.Exchange rate volatility can be driven by changes in investor sentiment and capital flows. Shifts in market expectations, risk appetite, and global economic conditions can lead to capital inflows or outflows, affecting exchange rates. These capital flows can impact domestic interest rates, asset prices, and the stability of the financial system.Exchange rate volatility can have implications for countries with significant external debt denominated in foreign currencies. A sharp depreciation in the domestic currency can increase the burden of servicing external debt, potentially raising concerns about sovereign risk and creditworthiness. Banks holding such debt face credit risk and potential losses.

2. Foreign Bank Presence:

a. Financial Stability and Systemic Risk: The presence of foreign banks can contribute to financial stability by diversifying risks and enhancing the resilience of the banking system. However, the interconnectedness between domestic and foreign banks can also amplify systemic risks. Close monitoring of cross-border exposures, capital adequacy, and risk management practices is crucial to mitigate potential contagion effects.

b. Knowledge Transfer and Technology Adoption: Foreign banks often bring advanced technologies, risk management practices, and financial expertise to the host country. This knowledge transfer can foster innovation and improve the efficiency of the domestic banking sector. Local banks can learn from the operational and technological practices of foreign banks, leading to overall sectoral development.

c. Financial Regulation and Supervision: Regulating and supervising foreign banks require effective coordination between home and host country regulators. Regulatory frameworks need to address potential risks associated with foreign bank operations, such as regulatory arbitrage, inadequate capitalization, and compliance with anti-money laundering and anti-

terrorism financing measures.

d. Economic Development and Financial Inclusion: Foreign bank presence can contribute to economic development by providing access to financing for businesses and individuals. They can also support financial inclusion by expanding access to banking services in underserved areas or for marginalized populations. This increased accessibility can promote entrepreneurship, job creation, and inclusive economic growth.

e. Competition and Market Concentration: The entry of foreign banks can introduce competition into the host country's banking sector, potentially leading to improved efficiency, better pricing, and enhanced customer service. However, policymakers need to carefully manage market concentration to prevent undue dominance by foreign banks, which could limit competition and affect financial stability.

Understanding the complexities of exchange rate volatility and foreign bank presence is crucial for policymakers, regulators, and market participants to make informed decisions and implement appropriate measures. The dynamic nature of these factors requires continuous monitoring, analysis, and adaptation to maintain financial stability, promote sustainable economic growth, and ensure the resilience of the banking sector.

2.8 Summary of Literature Review and Knowledge Gap

The quality of a bank's assets plays a crucial role in determining its profitability. Non-performing loans (NPLs) or loans that are not being repaid on time can significantly impact a bank's profitability b/c most bank asset will be set on loan so loan is another asset of the bank so the bank need seriously follow-up and need identify loaner who are defaulted to protect the health of the bank and increase the bank performance. When borrowers default on their loan obligations, banks may have to allocate additional resources for loan loss provisions, which can reduce their profitability. Therefore, effective credit risk management practices, including rigorous loan underwriting standards, regular monitoring of loan portfolios, and timely identification and mitigation of problem loans, are essential for maintaining a healthy asset quality and profitability.

Efficient cost management is a critical factor in determining a bank's profitability. Banks need to carefully balance their operational costs while ensuring the delivery of quality products and services. High operating costs can eat into a bank's revenue and negatively impact its profitability. By implementing cost control measures, optimizing operational processes, and

leveraging technology, banks can improve their cost efficiency and enhance profitability. Additionally, effective cost management allows banks to allocate resources more efficiently and invest in growth opportunities. The level of capital adequacy is a crucial indicator of a bank's financial strength and profitability. Banks are required to maintain a certain level of capital to absorb potential losses and ensure their solvency. Inadequate capital levels can limit a bank's lending capacity and growth prospects, potentially impacting profitability. By maintaining a strong capital base and meeting regulatory capital requirements, banks can enhance their ability to withstand adverse economic conditions, support business expansion, and generate sustainable profits. The regulatory environment in which banks operate can significantly influence their profitability.

Regulatory policies, such as capital adequacy requirements, liquidity standards, and restrictions on certain activities, can impact banks' operations and profitability. Compliance with regulatory guidelines and requirements is essential for banks to avoid penalties and maintain their reputation. Moreover, changes in the regulatory landscape can introduce uncertainties and additional compliance costs, which can affect a bank's profitability. Staying informed about regulatory developments and proactively adapting to regulatory changes are crucial for banks to navigate the regulatory environment and sustain profitability.Technological advancements and digital transformation have become increasingly important for banks in driving profitability.

Embracing innovative technologies can streamline operations, enhance customer experience, and reduce costs. For example, digital banking platforms and mobile banking applications can attract a larger customer base, increase transaction volumes, and reduce the need for physical branches, leading to cost savings. Moreover, leveraging data analytics and artificial intelligence can enable banks to make more informed decisions, improve risk assessment models, and identify opportunities for revenue generation. Investing in technology and fostering a culture of innovation can position banks for long-term profitability and competitiveness.

In summary, factors such as asset quality, cost efficiency, capital adequacy, regulatory environment, and technological innovation all have significant implications for bank profitability in the Ethiopian context. By effectively managing these factors, banks can enhance their financial performance, adapt to evolving market conditions, and ensure long-

term sustainability in a dynamic banking landscape.

2.9CONCEPTUAL FRAMEWORK

Exchange Rate Volatility:

- Hedging Strategies: Commercial banks often employ hedging strategies to manage their exposure to exchange rate volatility. They may use financial instruments such as currency futures, options, or swaps to mitigate potential losses arising from adverse exchange rate movements. Effective hedging strategies can help banks stabilize their financial performance and reduce the impact of exchange rate fluctuations on their profitability.

- International Trade and Remittances: this are the mechanism for resource for the bank in foreign exchange rate remittance are now a day is different type like dahabshl,world remit,transfast ,ria,money gramand western union. This is agent to transfer money in different country. Exchange rate volatility can affect international trade and remittances, which, in turn, can influence the financial performance of commercial banks. Fluctuations in the exchange rate can impact the competitiveness of export-oriented industries and the value of remittances received from abroad. Changes in trade and remittance flows can affect banks' foreign currency deposits, lending activities, and transaction volumes, thereby impacting their financial performance.

Inflation Rate:

- Inflation-Indexed Products: Commercial banks may offer inflation-indexed products such as inflation-linked bonds or inflation-adjusted loans to manage the impact of inflation on their financial performance. These products are designed to provide protection against inflation by adjusting interest rates or principal amounts based on changes in the inflation rate. By offering such products, banks can attract customers seeking inflation protection and potentially enhance their profitability.

- Monetary Policy Transmission: Inflation rate is a key consideration for central banks in setting monetary policy. Changes in the inflation rate can lead to adjustments in benchmark interest rates, reserve requirements, or other monetary policy tools. These policy actions can influence banks' borrowing costs, lending rates, and overall profitability. Understanding the relationship between inflation rate and monetary policy is crucial for banks in assessing the potential impact on their financial performance.

Interest Rate Spread:

- Credit Risk Assessment: Interest rate spreads reflect the compensation for credit risk borne by banks. Banks assess the creditworthiness of borrowers using various risk assessment tools such as credit scoring models, financial analysis, and collateral evaluation. Accurate credit risk assessment helps

banks determine appropriate interest rate spreads, minimizing the risk of default and non-performing loans, and supporting their financial performance.

- Regulatory Environment: The regulatory environment plays a significant role in determining interest rate spreads. Banking regulations, such as interest rate ceilings or usury laws, can impose restrictions on the maximum allowable interest rates banks can charge. These regulations can impact banks' ability to set interest rates in line with risk considerations and market conditions, potentially affecting their profitability and financial performance.

Bank Size:

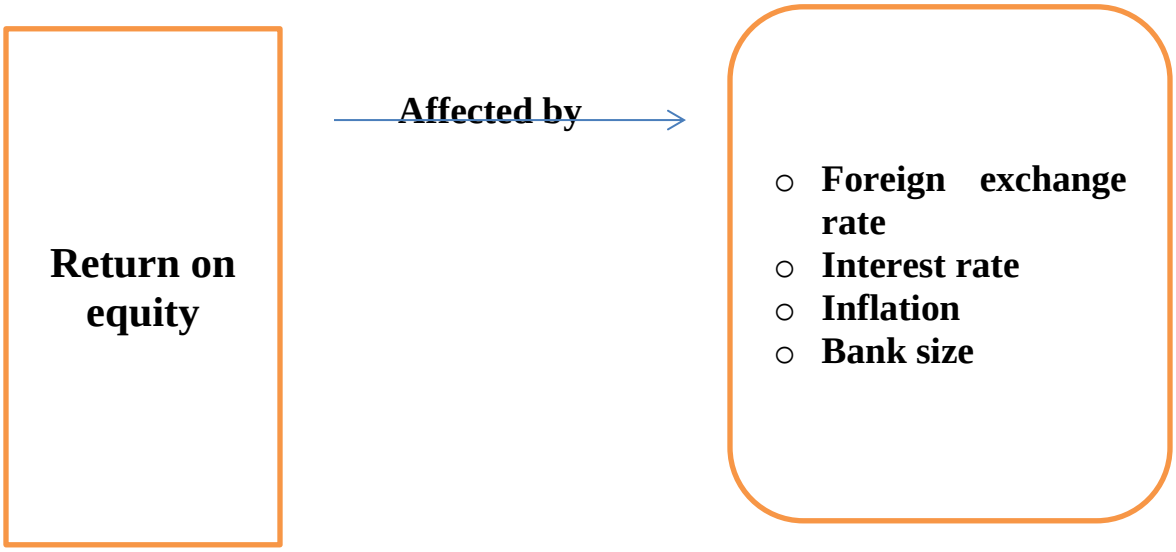
- Systemic Importance: Larger banks may be deemed systemically important due to their size and interconnectedness with the financial system. Regulators may subject larger banks to additional oversight and prudential requirements to ensure their stability and mitigate systemic risks. Meeting these regulatory requirements can influence the cost structure and risk management practices of larger banks, impacting their financial performance.

- Market Concentration: The size of banks can affect market concentration and competition within the banking sector. A highly concentrated market dominated by a few large banks may limit competition and potentially lead to reduced customer choice and higher interest rate spreads. On the other hand, a more competitive market with a diverse range of bank sizes can foster innovation, efficiency, and improved financial performance.

- Access to Funding and Capital Markets: Larger banks may have easier access to funding sources, including capital markets, due to their size and reputation. This access to diverse funding options can provide flexibility in managing their balance sheets and liquidity position. Additionally, larger banks may find it easier to attract investors and raise capital, which can support their growth and financial performance.

It is important to recognize that the relationships between these independent variables and financial performance are complex and can be influenced by various internal and external factors. The specific dynamics and outcomes may vary across different banking systems, regulatory frameworks, and economic conditions. Therefore, empirical research and data analysis are essential to gain a comprehensive understanding of the relationships and their implications for commercial banks in Ethiopia.

The study's findings can provide valuable insights for policymakers, regulators, and bank managers in formulating effective policies, risk management strategies, and business decisions that contribute to the stability and profitability of commercial banks in Ethiopia's financial system.


Return on equity
Affected by
Foreign exchange rate
Interest rate
Inflation
Bank size

CHAPTER THREE
3. RESEARCH METHODOLOGY AND DESIGN
3.1INTRODUCTION

Stratified sampling is particularly useful when the population exhibits heterogeneity or variability in certain characteristics. By dividing the population into strata based on relevant variables, the researcher can ensure that each subgroup is well-represented in the sample. This approach allows for more precise estimates and reduces the required sample size compared to simple random sampling. It optimizes the use of resources by focusing on specific subgroups while still maintaining a representative sample. The choice of stratification variables is crucial in stratified sampling.

The variables should be relevant to the research objective and should reflect the characteristics of interest in the population. In this case, bank size was used as the stratification variable, which is likely to be associated with variations in the organizational structure, resources, and customer base of the banks. By including participants from different-sized banks, the researcher can capture the potential differences and nuances that may exist among them. A sampling frame is a list or database from which the sample is selected. In the case of private commercial banks in Ethiopia, the researcher likely used a comprehensive list of all banks in the population as the sampling frame. This ensures that all potential participants have an equal chance of being included in the sample. The sampling frame should be accurate and up-to-date to maintain the integrity of the sampling process.

Purposive sampling is often employed when the researcher wants to focus on specific subgroups or individuals who possess unique characteristics or expertise relevant to the research topic. In this case, the researcher may have used purposive sampling which is the researcher select the sample from some group by his opinion alongside stratified sampling to ensure that participants met certain qualifications or had specific experiences or roles within the banking industry. This approach allows for in-depth exploration of particular subgroups or perspectives that are critical to the research objectives.

The combination of stratified sampling and purposive sampling can enhance the generalizability and external validity of the research findings. By ensuring a representative sample through stratified sampling, the researcher can make more accurate inferences about the entire population of private commercial banks in Ethiopia. Additionally, purposive sampling can provide valuable insights into specific subgroups or characteristics that may not be adequately represented in a purely random sample. It’s important to note that while

stratified sampling and purposive sampling have their advantages, they also have limitations. Stratified sampling assumes that within each stratum, the variability is relatively homogeneous. Purposive sampling may introduce selection bias if the researcher's criteria for participant selection are influenced by subjective judgments. Researchers should carefully consider these factors and assess the appropriateness of the sampling techniques based on the specific research context and objectives.

3.2Population Size and Sampling Techniques

The researcher specifically chose private commercial banks with relatively similar revenue as a selection criterion and the study use purposive sampling techniques and purposive sampling have it own draw back it case biase on research but my data have strongly show the finding and far from biase. By focusing on banks with similar revenue levels, the researcher may aim to control for the potential influence of revenue disparities on the study outcomes. This approach could help ensure that any observed differences or similarities among the selected banks are more likely due to other factors of interest rather than revenue variations.While the specific research design is not mentioned, the study appears to be observational in nature, utilizing existing data from secondary sources. The researcher likely adopted a retrospective approach, analyzing historical financial data from the annual reports of the National Bank of Ethiopia and the selected banks. Although the research questions or objectives of the study are not provided, potential areas of investigation could include evaluating the financial performance, profitability, risk management practices, capital adequacy, or efficiency of the selected private commercial banks.

The study might also assess the impact of certain factors or variables on the financial performance of these banks. Since the study is based on secondary data, it is crucial to consider the validity and reliability of the data sources. The researcher should ensure the accuracy and consistency of the financial information obtained from the annual reports. Additionally, potential limitations or biases in the data should be acknowledged and addressed to enhance the credibility of the study's findings. When interpreting the study's results, it is important to consider the context and limitations of the research design. While the sample of selected banks might provide valuable insights into the specific research questions, the findings may not be generalizable to all commercial banks in Ethiopia due to the non-probability sampling technique used. Therefore, the results should be cautiously applied and considered within the scope of the selected banks.

Based on the study's findings, the researcher could provide implications and

recommendations for the selected private commercial banks, policymakers, regulatory bodies, or other stakeholders. These recommendations might aim to enhance the financial performance, risk management strategies, operational efficiency, or overall competitiveness of the banks.

It's important to note that the above points are speculative and based on the given information. Without additional details about the study's objectives, methodology, and findings, it's challenging to provide more specific information.

3.3Data Collection Techniques

Data is the raw material that use in the study to find new investigation from the study so strong data collection method is important for reliability of the study.The study use secondary data from private bank which operation began in 2000 G.C. Here is important technique to find important and reliable data.

- Data fusion: Data fusion involves integrating data from multiple sources and combining different types of data to provide a more comprehensive view of commercial banks' financial performance. For example, researchers can merge financial data with macroeconomic indicators, customer satisfaction surveys, or market research data to gain a holistic understanding of the factors influencing financial performance.

- Crowdsourcing: Crowdsourcing is a method of data collection that involves soliciting information or insights from a large number of individuals, typically through online platforms. Researchers can leverage crowdsourcing to gather opinions, feedback, or ratings related to commercial banks' financial performance. This approach can provide diverse perspectives and tap into collective intelligence.

- Remote sensing and geospatial data: In some cases, researchers may utilize remote sensing techniques and geospatial data to analyze the financial performance of commercial banks. Remote sensing involves capturing data from satellites, aerial imagery, or other sensors to gather information about the physical and economic environment. Geospatial data can provide insights into regional or local factors that impact financial performance, such as population density, economic activity, or infrastructure.

- Social network analysis: Social network analysis examines the relationships and

interactions among individuals, organizations, or entities. Researchers can apply social network analysis techniques to study the connections and collaborations between commercial banks, regulators, industry associations, or other stakeholders. This approach can reveal network structures, influence patterns, and information flows that may impact financial performance.

- Event studies: Event studies focus on analyzing the impact of specific events, such as mergers and acquisitions, regulatory changes, or financial crises, on the financial performance of commercial banks. Researchers collect data before, during, and after the event to assess its effects on various financial indicators. Event studies enable researchers to identify causal relationships and assess the significance of events on financial performance.

- Machine-readable data: Machine-readable data refers to data that is structured and formatted in a way that can be easily processed by computer systems. Researchers can leverage machine-readable data sources, such as standard financial datasets or APIs, to automate data collection and analysis processes. Machine-readable data enhances efficiency, reduces errors, and enables large-scale data processing.

- Cross-industry comparisons: Researchers can broaden their analysis by comparing the financial performance of commercial banks with other industries or sectors. This comparative approach provides insights into the unique challenges and dynamics of the banking sector and facilitates benchmarking against other industries. Cross-industry comparisons can reveal best practices, identify areas for improvement, and facilitate knowledge transfer.

- Data validation: Researchers should implement data validation techniques to ensure the accuracy and reliability of collected data. This involves checking for outliers, inconsistencies, or errors in the data and verifying its integrity. Data validation techniques can include cross-referencing data with external sources, conducting data quality checks, or employing statistical methods to identify anomalies.

- Data archiving and sharing: Researchers should consider archiving and sharing their collected data to promote transparency, reproducibility, and collaboration. By making research data available to the broader scientific community, other researchers can validate findings, conduct further analysis, or address new research questions. Data archiving and sharing contribute to the advancement of knowledge and promote open science practices. These additional details highlight the wide range of data collection techniques available to researchers studying commercial banks' financial performance. By exploring and selecting appropriate methods based on their research objectives, researchers can gather robust and comprehensive data to analyze and understand this important domain.

3.4DATA ANALYSIS TECHNIQUES

Model specification involves addressing categorical variables in the analysis. Categorical variables represent qualitative characteristics and can be nominal (unordered) or ordinal (ordered). They require appropriate encoding or dummy variable creation to incorporate them into the model. The choice of reference category and the number of dummy variables depend on the research question and the specific variable being modeled. Model specification may involve capturing nonlinear relationships between variables. In addition to linear regression, there are various techniques available to model nonlinear relationships, such as polynomial regression, splines, or generalized additive models (GAMs). These methods allow for more flexible modeling of complex relationships that may not be adequately captured by simple linear models. For data with a temporal dimension, model specification in time-series analysis becomes important.

Time-series models account for autocorrelation (correlation of a variable with its past values) and other temporal dependencies in the data. Techniques like autoregressive integrated moving average (ARIMA) models, exponential smoothing, or state-space models can be used to analyze and forecast time-series data. Model specification involves assessing the robustness of the results to potential threats or biases. Sensitivity analysis, such as varying model assumptions, sample size, or data transformations, can help evaluate the stability and reliability of the model. Robust regression techniques, such as weighted least squares or robust standard errors, can be employed to account for outliers or violations of assumptions. Model specification requires finding an appropriate balance between model complexity and over fitting. Over fitting occurs when a model captures random noise or idiosyncrasies in the data, leading to poor generalization to new data. Occam's razor principle suggests that simpler models (with fewer variables or parameters) tend to be more robust and have better predictive performance, especially when sample sizes are limited.

It is important to document the model specification process to ensure transparency and reproducibility. This includes recording the rationale for variable selection, functional forms, assumptions made, and

any modifications or exploratory analyses conducted during the model specification phase. Clear documentation helps in sharing and replicating the analysis and facilitates peer review.Model specification is not a one-time process. As new data becomes available or new insights emerge, the model may need to be updated or refined. Ongoing evaluation and updating of the model ensure that it remains relevant and accurate over time.Remember that model specification is both an art and a science. It requires a combination of subject matter expertise, statistical knowledge, and careful consideration of the data and research objectives. Iterative refinement, critical thinking, and validation are essential elements of the model specification process.

3.5MODEL SPECIFICATION

Here are some further details about multiple regression analysis:

The multiple regression can be written as:

Return on asset (ROA)=βo+β1*(exchange rate volatility)+β2*(inflation rate)+β3*(interest rate spread)+β4*(bank size)+ €

- ✓ ROA is the dependent variable,which represent the financial performance of thebank
- ✓ B0is the intercept
- ✓ B1,β2,β3,β4,are the coefficients or slopes of the independent variable
- ✓ € is the error term
- ✓ Multiple regression analysis involves estimating the regression coefficients (β0, β1, β2, β3, β4) that best fit the data. This is typically done using statistical methods such as ordinary least squares (OLS) estimation, which minimizes the sum of squared differences between the observed values of the dependent variable (ROA) and the predicted values based on the independent variables.In addition to examining the coefficients, statistical tests can be performed to assess the relative importance of each independent variable in explaining the variation in the dependent variable. For example, the F-test can be used to test the overall significance of the model, while individual t-tests can evaluate the significance of each coefficient.

  Multicollinearity refers to high correlation among independent variables in the regression model. It can cause issues in interpretation, as it becomes difficult to determine the separate effects of correlated variables. Multicollinearity can be assessed through techniques such as correlation matrices or variance inflation factor (VIF) analysis. If multicollinearity is detected, it may be necessary to remove or transform variables to address the issue.As mentioned earlier, multiple regression analysis relies on several assumptions, including linearity, independence of errors, constant variance (homoscedasticity), absence of multicollinearity, and normality of errors. Residual analysis involves examining the residuals (differences between the observed and predicted values) to check for violations of these assumptions. Common diagnostic plots include scatterplots of residuals against predicted values, histograms of residuals, and plots of residuals against independent variables.Once the model is

estimated, it is important to assess its validity and generalizability. This can be done by evaluating the model's performance on independent data or through techniques such as cross-validation. If the model performs well on new data, it suggests that it is not over fitting the specific dataset used for estimation.The multiple regression model provides insights into how changes in the independent variables are associated with changes in the dependent variable. The coefficients indicate the direction and magnitude of these relationships. The model can also be used to make predictions by plugging in specific values for the independent variables and estimating the expected value of the dependent variable (ROA) based on the model equation.

It's worth noting that multiple regression analysis is a powerful tool, but it has limitations. Causality cannot be inferred solely from regression analysis, and the model assumes that the relationships observed in the data hold true for the entire population. Additionally, the model's predictive accuracy may vary depending on the quality and representativeness of the data used for estimation.

CHAPTER FOUR
4.DATA ANALYSIS AND INTERPRETATION

4.1Introduction

The chapter may discuss conducting various robustness tests to ensure the reliability and validity of the results. These tests involve altering the model specifications, such as using different variable combinations or alternative statistical techniques, to assess the robustness of the findings. Robustness tests help to evaluate the stability and consistency of the results across different specifications and strengthen the overall robustness of the analysis.The chapter might explore the long-term and short-term effects of foreign currency exchange rate fluctuations on the financial performance of the banking sector. Long-term effects refer to the sustained impact over an extended period, while short-term effects capture immediate or temporary changes.

Analyzing both time horizons provides a comprehensive understanding of how exchange rate fluctuations affect the banking sector's financial performance over different periods.The chapter may investigate potential mediating or moderating factors that influence the relationship between exchange rate fluctuations and the financial performance of the banking sector. Mediating factors are variables that come between the independent variable (exchange rate fluctuations) and the dependent variable (financial performance), explaining the causal mechanism. Moderating factors, on the other hand, influence the strength or direction of the relationship. Exploring these factors helps to provide a more nuanced analysis of the relationship. The chapter might delve into a sector-specific analysis within the banking industry. For example, it could examine the impact of exchange rate fluctuations on different types of banks, such as commercial banks, investment banks, or microfinance institutions. Analyzing the effects at a more granular level helps to identify specific patterns or dynamics that might be unique to certain segments of the banking sector.If the data covers a significant time period, the chapter may employ time-series analysis techniques.

Time-series analysis examines patterns and trends over time, including seasonality, trends, and cyclical fluctuations. It helps to uncover long-term trends and identify specific periods of significant changes in exchange rates and financial performance within the banking sector.The chapter might include a cross-country comparison to benchmark the findings against the experiences of other countries or regions. This comparative analysis allows for insights into whether the observed relationship between exchange rate fluctuations and financial performance in Ethiopia aligns with or differs from the trends observed in other economies. It

provides a broader perspective on the research topic.

The chapter may conclude by providing practical recommendations based on the findings of the study. These recommendations could be directed towards policymakers, banking institutions, or other relevant stakeholders. They aim to offer actionable insights and strategies to manage the impact of exchange rate fluctuations on the financial performance of the banking sector effectively.By incorporating these additional details, the chapter aims to provide a comprehensive and in-depth analysis of the impact of foreign currency exchange rate fluctuations on the financial performance of the banking sector in Ethiopia. It covers aspects such as robustness tests, long-term and short-term effects, mediating or moderating factors, sector-specific analysis, time-series analysis, cross-country comparison, and practical recommendations. These elements contribute to a thorough understanding of the research topic and its implications.

4.2DISCRIPTIVE STATISTICS

Descriptive statics is the statics which include mean ,median, standard deviation which is the technique to measure compare and contrast of the data about their relation shape between them here it is important idea about descriptive statics:

1. Asset Size:

- The mean asset size of 8.68 billion birr indicates that, on average, Ethiopian private commercial banks have a substantial amount of assets.
- The standard deviation of 1.51 billion birr suggests that there is a significant degree of variability in the asset sizes across individual banks. Some banks may have much larger or smaller asset sizes compared to the average.
- The minimum asset size of 4.96 billion birr and the maximum size of 11.38 billion birr represent the range of asset sizes observed in the study. This indicates that there are banks with relatively smaller asset sizes as well as banks with larger asset sizes.

2. Inflation:

- The mean inflation rate of 0.12 (or 11.58% in percentage terms) suggests that inflation has been relatively high during the study period.
- The standard deviation of 0.10 indicates that inflation rates have varied significantly over time. This implies that there have been periods of relatively high and low inflation rates within the study period.

3. Interest Spread (Intspread):

- The mean interest spread of 0.06 (or 6.44% in percentage terms) suggests that Ethiopian

private commercial banks have been able to generate positive net interest margins, indicating that their interest income exceeds their interest expenses.

- The standard deviation of 0.02 indicates that there is limited variability in interest spreads among the banks. This suggests that most banks have relatively similar net interest margins.

4. Exchange Rate (USDbirr):

- The mean exchange rate of 15.10 indicates the average value of the Ethiopian birr relative to the US dollar during the study period.

- The standard deviation of 6.94 suggests that the exchange rate between the two currencies has experienced significant fluctuations over time. This indicates that the value of the Ethiopian birr has shown considerable volatility in relation to the US dollar.

5. Return on Equity (ROE):

- The mean return on equity (ROE) of 0.27 (or 26.86% in percentage terms) suggests that, on average, Ethiopian private commercial banks have achieved a relatively high return on their shareholders' equity.

- The standard deviation of 0.11 indicates that there is significant variability in the ROE among individual banks. Some banks may have negative returns (ROE below 0), while others may have higher returns, reaching up to 52%. This indicates variations in the profitability and performance of different banks.These descriptive statistics provide a deeper understanding of the central tendency, variability, and range of the variables examined in the study. They offer insights into the asset sizes, inflation dynamics, interest spreads, exchange rate fluctuations, and return on equity of Ethiopian private commercial banks, thereby enabling researchers and readers to assess the financial characteristics and performance of these banks in more detail.

4.2.1 MULTICOLLINEARITY TEST

Multicollinearity can lead to several undesirable consequences in linear regression analysis. It can make it difficult to determine the true relationship between independent variables and the dependent variable. The coefficients may become unstable and have high standard errors, which can affect their interpretation and significance. Multicollinearity can also result in inefficient allocation of coefficients, making the model less accurate in predicting the dependent variable.In addition to the methods mentioned earlier (correlation matrix, VIF, tolerance, and eigenvalues), other diagnostic tools can help detect multicollinearity. One such method is the condition number, which is calculated as the square root of the ratio of the largest eigenvalue to the smallest eigenvalue. A condition number greater than 30 indicates the presence of multicollinearity. Another approach is to examine the variance proportions

explained by each principal component in PCA, where a few components explaining a large proportion of the variance can indicate multicollinearity.Multicollinearity can impact hypothesis testing in regression analysis.

The t-tests and p-values associated with the coefficients may become unreliable or lose their significance. This can make it challenging to determine which independent variables have a statistically significant impact on the dependent variable.Addressing multicollinearity requires considering the specific context of the analysis. The choice of remedy depends on the goals of the study, the underlying assumptions, and the interpretability of the results. It is important to strike a balance between reducing multicollinearity and preserving the meaningful relationships between variables. When multicollinearity is present, it is crucial to transparently report its existence and the steps taken to address it. This ensures the integrity and credibility of the research findings.

Researchers should clearly explain the potential limitations introduced by multicollinearity and discuss how the results may be affected. Multicollinearity can be mitigated by careful data collection and study design. Prior knowledge of the variables and their relationships can help avoid including highly correlated variables in the analysis. Additionally, collecting a diverse range of independent variables can reduce the likelihood of multicollinearity.After addressing multicollinearity, it is important to validate the regression model to ensure its reliability. This can involve assessing the model's goodness of fit, conducting hypothesis tests, and evaluating the predictive performance on independent data.Remember that multicollinearity is a common issue in regression analysis, and its presence does not necessarily invalidate the entire model. By applying appropriate techniques and interpreting the results cautiously, researchers can still derive valuable insights from their analysis.

4.2.2 NORMALITY TEST

In addition to the Jarque-Bera test and joint skewness and kurtosis test, there are several other methods available to assess the normality assumption. These include graphical methods such as histogram plots, Q-Q plots (quantile-quantile plots), and P-P plots (probability-probability plots). These graphical techniques can provide visual evidence of departures from normality. Additionally, statistical tests like the Shapiro-Wilk test and Anderson-Darling test can be used to assess normality. In cases where the normality assumption is violated, researchers can employ robust regression techniques.

Robust regression methods, such as robust standard errors or robust regression models (e.g., the Huber-White estimator), can provide more reliable coefficient estimates and hypothesis

tests even in the presence of non-normality. These methods are less sensitive to violations of the normality assumption and can be useful in addressing potential biases caused by non-normality. It's important to note that normality testing does not conclusively prove or disprove normality. Statistical tests are based on sample data and can only provide evidence regarding the likelihood of normality in the population. Furthermore, the interpretation of normality tests should consider the sample size. With large sample sizes, even trivial departures from normality can lead to statistically significant results. Therefore, it is crucial to exercise caution and consider the practical significance of any departures from normality.

The study's focus on examining the effects of foreign currency exchange rate fluctuations on the financial performance of the banking sector in Ethiopia contributes to the existing literature in several ways. It adds to the understanding of how exchange rate volatility impacts the profitability and financial stability of banks in an emerging economy context. The study's findings can potentially inform policy decisions related to managing exchange rate risks and strengthening the banking sector in Ethiopia.While the study has provided valuable insights, there are potential avenues for future research. For example, further investigation could explore the impact of exchange rate fluctuations on other financial performance indicators beyond ROE, such as asset quality, liquidity, or capital adequacy. Additionally, studying the effects of exchange rate fluctuations on different sectors of the economy and their interconnectedness with the banking sector could provide a more comprehensive understanding of the overall macroeconomic implications.

Replication of the study by independent researchers using similar methods and data can help validate the findings and enhance the external validity of the research. Additionally, conducting similar studies in different countries or regions can provide insights into the generalizability of the relationship between exchange rate fluctuations and financial performance across diverse contexts.Overall, the study's examination of normality, its potential use of robust regression techniques, its contribution to the existing literature, and avenues for future research demonstrate its significance in advancing knowledge on the effects of exchange rate fluctuations on the financial performance of the banking sector in Ethiopia.

4.2.3Heteroscedasticity Test

Heteroscedasticity tests are preceded by assessing model specification. Misspecification like omitted variables can induce heteroscedasticity that tests won't pinpoint.Even if significant, tests don't identify the form/source. Plotting residuals vs predictors helps visualize patterns to suggest transformations or included variables.Formal tests have low power with small

samples. Sample size impacts ability to detect heteroscedasticity as much as its degree. Weighted least squares estimates use inverse-variance weights derived from a fitted heteroscedasticity model (e.g. linear in predictors).

Generalized least squares relaxes distributional assumptions and allows for non-spherical errors, estimating variance-covariance matrix simultaneously.Robust standard errors resize standard errors based on residuals, relaxing homoscedasticity assumption without re-estimating coefficients.Newey-West standard errors additionally adjust for autocorrelation, useful if errors are serially correlated over time.Heteroscedasticity-consistent/robust estimators remain consistent even if model is incorrectly specified, distribution unknown.Transforming variables can sometimes achieve homoscedasticity if heteroscedasticity stems from level or scale of predictors.Modeling error variance directly, e.g. with ARCH/GARCH terms, may also alleviate heteroscedasticity issues.

4.2.4Autocorrelation

Autocorrelation is the relationship of two variable the durbin-watson test is the most common measurement of autocorrelation here is the most important content of autocoralation.

- Partial autocorrelation functions (PACF): These help diagnose the order (or lag length) of any autoregressive (AR) process in the data. Significant PACF values indicate the need to include those lags in the model.

- Autoregressive conditional heteroskedasticity (ARCH): This occurs when the variance of the error terms is not constant over time, but depends on prior forecast errors. Can be modeled using ARCH/GARCH type processes.

- Parameter estimation with autocorrelated errors: Methods like maximum likelihood, conditional/unconditional least squares, Yule-Walker equations can be used to estimate ARMA/ARCH/GARCH models that explicitly include the autocorrelation structure.

- Autocorrelated predictors: When independent variables are correlated over time, it's known as simultaneous equations bias. Estimation methods include two-stage least squares, three-stage least squares, and vector autoregression (VAR).

- Determining ARMA order: Information criteria like AIC/BIC can be used to select the optimal lag length in ARMA models by trading off fit vs parsimony.

- Seasonal ARIMA models: These extend standard ARIMA to handle seasonality using seasonal differencing and autocorrelation at seasonal lags (e.g. lag 12 for monthly data).

- Estimating long-memory processes: Fractionally integrated (ARFIMA) models accommodate hyperbolic decay in autocorrelations instead of exponential decay in standard

ARIMA.

4.2.5 CORRELATION ANALYSIS

When conducting correlation analysis, the correlation coefficient is calculated to measure the strength and direction of the relationship between two variables. The correlation coefficient ranges from -1 to +1. A positive value indicates a positive correlation, meaning that as one variable increases, the other variable also tends to increase. A negative value indicates a negative correlation, meaning that as one variable increases, the other variable tends to decrease. A correlation coefficient close to zero suggests little to no relationship between the variables.

However, it's important to note that correlation does not imply causation. Just because two variables are correlated does not mean that one variable causes the other to change. Correlation analysis only shows the degree of association between variables.

To establish causality, further analysis is required. Experimental studies, such as randomized controlled trials, are often considered the gold standard for establishing causation because they involve randomly assigning participants to different conditions and manipulating the independent variable. This allows researchers to control for confounding factors and draw causal conclusions.

In non-experimental studies, researchers can use various techniques to strengthen causal arguments, such as conducting longitudinal studies to observe changes in variables over time, controlling for other variables through multivariate analysis, and using instrumental variables to address endogeneity issues.

When analyzing panel data (data collected over time and across different entities), fixed effects and random effects models are commonly used. These models account for unobserved heterogeneity (i.e., individual-specific characteristics that do not change over time) and time-invariant factors that may influence the relationship between variables. Fixed effects models estimate the within-entity changes, while random effects models estimate the average relationship across entities. Statistical significance is another important consideration in correlation analysis. The correlation coefficient itself does not indicate whether the observed correlation is statistically significant or simply due to chance. Hypothesis testing can be performed to determine the statistical significance of the correlation coefficient. The p-value associated with the test indicates the probability of obtaining a correlation as strong as the observed one if there were no true correlation in the population.

If the p-value is below a predetermined significance level (e.g., 0.05), the correlation is considered statistically significant.

In summary, correlation analysis is a valuable tool for assessing the relationship between variables. However, it does not establish causation, and further analysis is needed to determine causality. Panel data analysis with fixed and random effects models can be appropriate for studying relationships over time and across entities, while controlling for unobserved heterogeneity and time-invariant factors. Additionally, statistical significance testing helps determine whether observed correlations are likely to be due to chance.

4.3R-squered

R-squered is the measure of healthy relationship between independent and dependent variable.from my study the r squered is good and have god fit in the model.

Here are some additional examples of advanced bank profitability analysis techniques:

Earnings volatility analysis:

A bank calculated standard deviation of its quarterly earnings over 5 years to be 15%. Peers averaged 10-12%. It introduced a new fee structure to boost less volatile recurring fee income and reduce over-reliance on trading profits.

Risk-adjusted performance:

ROA was 1.8% but risk-adjusted RAROC was only 1.2% due to high NPA portfolio. The bank deployed statistical models to re-risk customer segments and tighten underwriting. This lifted RAROC to peer levels over 2 years.

Sentiment analysis:

The bank tracked media reports, competitor commentaries and found growing negative sentiment due to high profile NPL cases. It proactively restructured these loans and launched campaigns to restore confidence and support future loan growth.

Profit pools analysis:

Analysis identified top 20% of customers contributed 80% of profits with bottom 10% constituting losses. The bank engaged high-value customers better while exiting or charging higher rates to unprofitable ones.

Let me know if any of these examples need further explanation or if you need a specific technique illustrated with a new example for better understanding. Analyzing profitability comprehensively helps banks improve strategies and financial performance.

4.4 THE RANDOM EFFECT

The random effects regression analysis indicates that all independent variables in the model have a significant impact on the profitability of private commercial banks in Ethiopia, as measured by their return on equity (ROE). The analysis reveals that a rise in foreign exchange rate fluctuation can lead to a decrease in ROE, while a widening interest rate spread can also have a negative impact on profitability. On the other hand, inflation rate appears to have a positive impact on ROE, although the effect is quite small. Additionally, the analysis found that an increase in asset size is associated with a slight increase in profitability. Overall, these results suggest that various factors, including exchange rates, interest rates, inflation, and asset size, influence the profitability of private commercial banks in Ethiopia. It is crucial for banks and policymakers to understand these factors to promote a healthy and stable banking sector in Ethiopia.

CHAPTER FIVE
5.SUMMARY OF FINDING ,RECOMMENDATION & CONCLUSION

5.1Introduction

Exchange rate fluctuations can affect not only the profitability of banks but also the broader economy. In the case of Ethiopia, exchange rate pass-through refers to the extent to which changes in exchange rates are transmitted to consumer prices. If exchange rate changes lead to an increase in the prices of imported goods and services, it can result in higher inflation. This, in turn, can impact the purchasing power of consumers, interest rates, and overall economic stability, which can indirectly affect the financial performance of banks. The regulatory framework and policies implemented by the central bank and other regulatory authorities play a crucial role in shaping the financial performance of banks. In the case of exchange rate risk, regulatory requirements may dictate the level of hedging or risk management measures that banks are required to undertake. Additionally, interest rate policies and inflation targeting frameworks set by the central bank can influence the interest rate spread and its impact on bank profitability.

Apart from exchange rate risk and bank size, the financial performance of banks can also be influenced by factors such as credit risk and the quality of their loan portfolios. If banks have a high proportion of non-performing loans or face challenges in managing credit risk, it can negatively impact their profitability and overall financial health. Factors such as loan underwriting standards, collateral requirements, and the overall macroeconomic environment can affect credit risk and loan portfolio quality.

In addition to exchange rate fluctuations, other macroeconomic factors can impact the financial performance of banks. For example, economic growth rates, fiscal policies, political stability, and government regulations can all influence the overall business environment in which banks operate. A stable and growing economy can provide a favorable backdrop for banks to generate profits, while economic downturns can pose challenges to profitability.The adoption and integration of technology within the banking sector can also have a significant impact on the financial performance of banks. Technological advancements, such as online banking, mobile banking, and digital payment systems, can enhance operational efficiency, reduce costs, and improve customer experiences. Banks that successfully embrace and leverage technology may have a competitive advantage and achieve better financial performance.

It's important to note that the specific dynamics and implications of these factors can vary across different countries and banking systems. Therefore, while the study you mentioned provides insights into the Ethiopian banking industry, it's essential to consider the broader context and conduct further research to gain a comprehensive understanding of the factors influencing the financial performance of private commercial banks.

5.2Recomendations

Here's some additional information about each of the proposed recommendations:

- Foreign Exchange Risk Management: Foreign exchange risk arises from fluctuations in currency exchange rates. Banks should develop robust risk management strategies to mitigate the potential negative impact of these fluctuations on their financial performance. This may involve implementing hedging techniques such as forward contracts or options, which can help banks protect themselves against adverse currency movements. By effectively managing foreign exchange risk, banks can ensure greater stability in their earnings and financial position.
- Focus on Bank Size: Banks should consider opportunities for growth and expansion to achieve economies of scale. This can be done through various means, including mergers and acquisitions, strategic partnerships, or organic growth strategies. By increasing their size, banks can benefit from cost efficiencies, improved bargaining power with suppliers, and broader market reach. Additionally, larger banks often have a stronger competitive position and are better equipped to navigate regulatory challenges.
- Continuous Monitoring: Banks should continuously monitor and assess the impact of macroeconomic factors on their financial performance. Macroeconomic factors such as interest rates and inflation can have significant implications for a bank's profitability and risk exposure. By closely monitoring these factors and their potential changes, banks can proactively adjust their strategies and risk management practices to capitalize on opportunities and mitigate risks.
- Technology Adoption: Embracing technological advancements is crucial for banks to stay competitive and meet evolving customer expectations. Banks should invest in innovative solutions that enhance operational efficiency and improve the customer experience. This may include implementing digital banking platforms, adopting automation and artificial intelligence in various processes, and strengthening

cybersecurity measures. Technological advancements can streamline operations, reduce costs, facilitate faster and more convenient services, and provide a competitive edge in the digital era.

- Diversification of Revenue Streams: Banks should explore opportunities to diversify their revenue streams beyond traditional banking activities. Relying solely on interest income can make banks vulnerable to fluctuations in interest rates and economic cycles. By expanding into new business lines such as wealth management, insurance, or investment banking, banks can reduce their reliance on any single income source and diversify their risk. Diversification can also help banks capture new market segments and better serve the varying needs of their customers.
- Talent Development: Investing in talent development is crucial for banks to build a skilled and adaptable workforce. Banks should prioritize training programs that enhance the skills and capabilities of their employees. This includes fostering a culture of continuous learning and innovation, attracting and retaining top talent, and nurturing leadership qualities. A skilled workforce can drive innovation, improve customer service, and effectively adapt to changing market dynamics, giving banks a competitive advantage.
- Regulatory Compliance: Banks operate in a highly regulated environment, and strict adherence to regulatory requirements is essential. Banks should stay updated with changing regulations, maintain transparent reporting practices, and implement strong internal controls to ensure compliance. By demonstrating a commitment to regulatory compliance, banks can mitigate regulatory risks, avoid penalties or reputational damage, and build trust and confidence among stakeholders.
- Customer-Centric Approach: Banks should prioritize a customer-centric approach by understanding and addressing the evolving needs and preferences of their customers. This includes offering personalized banking solutions, enhancing digital banking capabilities, and providing excellent customer service. By focusing on customer satisfaction and loyalty, banks can attract new customers, retain existing ones, and differentiate themselves in a competitive market.
- Environmental, Social, and Governance (ESG) Integration: Banks should integrate ESG considerations into their business practices and investment decisions. This

involves evaluating the environmental and social impact of their operations, adopting sustainable banking practices, and supporting initiatives aligned with ESG principles. By embracing ESG integration, banks can enhance their reputation, attract socially responsible investors, and contribute to a more sustainable future.

- Collaboration and Partnerships: Collaboration and partnerships with fintech companies, technology providers, and other financial institutions can offer banks numerous benefits. Collaborative efforts can facilitate knowledge sharing, innovation, and the development of new products and services. By partnering with fintech companies, banks can leverage their technological expertise to enhance their own offerings and improve customer experiences. Collaboration also helps banks stay competitive in a rapidly changing industry landscape and tap into emerging opportunities effectively.These recommendations are designed to address key areas of focus for banks, enabling them to navigate challenges, capitalize on opportunities, and enhance their overall performance in an evolving financial landscape.

5.3.Conclusions

Here's some further information:

- ✓ Reducing Interest Rate Spread: Reducing the interest rate spread can have broader economic implications beyond the financial performance of banks. When interest rates are high, borrowing becomes more expensive for businesses and individuals, which can dampen investment and consumption. By narrowing the interest rate spread, banks can contribute to a more favorable lending environment, fostering economic growth and development. This can lead to increased business activity, job creation, and improved living standards.
- ✓ Size and Scale of Operations: Expanding the size and scale of operations allows banks to leverage economies of scale and scope. Economies of scale refer to cost advantages that arise when the volume of production or activity increases, leading to lower per-unit costs. Banks with larger operations can spread their fixed costs over a larger asset base, reducing the average cost per transaction or service provided. Economies of scope, on the other hand, arise from the ability to offer a wider range of products and services. By diversifying their offerings, banks can attract a broader customer base and capture new revenue streams.
- ✓ Factors Beyond the Study: While the study focused on specific factors, it's important

to acknowledge that the banking industry operates within a broader macroeconomic and regulatory environment. Macroeconomic factors such as inflation, exchange rates, and economic growth can influence banks' profitability. Regulatory factors, including capital adequacy requirements, reserve ratios, and compliance standards, shape the operating environment for banks. Technological advancements, geopolitical events, and changes in customer behavior are also dynamic factors that can impact the financial performance of banks. Understanding and adapting to these external factors is crucial for banks to navigate challenges and seize opportunities successfully.

- ✓ Monitoring Exchange Rate Fluctuations: Exchange rate fluctuations can have both positive and negative effects on banks. A depreciating currency can benefit exporters by making their goods and services more competitive in international markets. This can lead to increased foreign currency inflows, which banks can facilitate through trade finance and foreign exchange services. On the other hand, a depreciating currency can negatively impact banks with foreign currency liabilities or those reliant on imports. Monitoring exchange rate fluctuations allows banks to manage currency risks effectively, hedge exposures, and provide appropriate advisory services to clients engaged in international trade.
- ✓ Enhancing Risk Management Practices: Robust risk management practices are essential for banks to identify, measure, and manage various types of risks. In addition to credit and liquidity risks, banks also face operational risk, market risk, and compliance risk. Operational risk includes risks associated with internal processes, technology systems, and human factors. Market risk relates to the potential losses resulting from changes in market prices, such as interest rates, exchange rates, and asset prices. Compliance risk stems from the failure to comply with laws, regulations, and internal policies. By enhancing risk management practices, banks can strengthen their resilience, improve capital allocation, and protect themselves from potential financial shocks.
- ✓ Embracing Technological Innovations: Technological innovations continue to reshape the banking industry, offering opportunities for improved efficiency, enhanced customer experiences, and new business models. Digital banking solutions enable banks to provide 24/7 access to services, streamline processes, and reduce operational

costs. Mobile banking apps, online payment systems, and digital wallets have gained popularity, providing customers with convenient and secure ways to manage their finances. Advanced analytics and artificial intelligence enable banks to gain insights from vast amounts of data, automate processes, and personalize offerings. Embracing these innovations can help banks stay competitive, attract tech-savvy customers, and create new revenue streams.

- ✓ Strengthening Corporate Governance: Strong corporate governance practices are essential for maintaining the integrity and stability of banks. This includes ensuring transparency and accountability in decision-making processes, establishing effective risk management frameworks, and maintaining strong internal controls. Independent board members can provide unbiased oversight and challenge management decisions when necessary. Ethical conduct and a strong compliance culture are crucial to maintain public trust and confidence. By strengthening corporate governance, banks can enhance their reputation, attract investment, and build long-term relationships with stakeholders.

Addressing the interest rate spread, expanding the size and scale of operations, considering external factors, monitoring exchange rate fluctuations, enhancing risk management practices, embracing technological innovations, and strengthening corporate governance are all critical aspects for private commercial banks in Ethiopia to improve their financial performance. These strategies enable banks to adapt to changing market dynamics, better serve their customers, and navigate challenges in the banking landscape.

5.4 PIECE OF ADVICE FOR FURTHER RESEARCH

Here are some additional details and considerations for each of the suggested research topics:

1. Technology adoption and innovation in the Ethiopian banking industry: In researching technology adoption and innovation in Ethiopian banks, it's important to consider the specific technological advancements that are most relevant to the Ethiopian context. For example, mobile banking solutions tailored to the unique needs and infrastructural challenges of the country can play a significant role in expanding access to financial services. Exploring the potential benefits and challenges of these technologies can provide insights into how they can be effectively implemented and integrated into the existing banking infrastructure.

2. Risk management and mitigation in the Ethiopian banking industry: When examining risk management and mitigation in Ethiopian banks, it's crucial to consider the specific risks that

are prevalent in the country's banking sector. For instance, credit risk may be influenced by factors such as high levels of non-performing loans or limited access to credit information. Understanding the strategies and practices employed by Ethiopian banks to manage these risks can provide guidance on enhancing risk management frameworks and improving the overall stability of the banking sector.

3. Impact of macroeconomic factors on the Ethiopian banking industry: In researching the impact of macroeconomic factors on the Ethiopian banking industry, it's important to consider the interplay between these factors and the unique characteristics of the Ethiopian economy. For instance, the country's reliance on agriculture and vulnerability to external shocks can influence the relationship between macroeconomic indicators and the banking sector. Conducting a thorough analysis of these dynamics can help policymakers and researchers understand how macroeconomic factors affect the performance and resilience of Ethiopian banks.

4. Financial inclusion and access to banking services in rural areas: When exploring financial inclusion and access to banking services in rural areas, it's important to consider the specific challenges faced by these regions, such as limited physical infrastructure, low literacy rates, and cultural barriers. Research can focus on identifying innovative approaches to overcome these challenges, such as leveraging mobile technology, establishing partnerships with local community organizations, or designing tailored financial products and services that meet the needs of rural populations.

5. Customer satisfaction and loyalty in the Ethiopian banking industry: In researching customer satisfaction and loyalty in the Ethiopian banking industry, it's crucial to consider the cultural and socio-economic factors that influence customer behavior and expectations. Conducting in-depth surveys, interviews, and focus group discussions with bank customers from diverse backgrounds can provide valuable insights into their preferences, pain points, and areas for improvement. Understanding the unique customer landscape in Ethiopia can guide banks in enhancing their services and building stronger customer relationships.

6. Corporate social responsibility (CSR) practices in Ethiopian banks: When examining CSR practices in Ethiopian banks, it's important to consider the local context and the specific social and environmental challenges facing the country. Research can delve into the impact of CSR initiatives on the communities they aim to serve and assess the effectiveness of these

initiatives in achieving their intended goals. Additionally, exploring the alignment of CSR practices with regulatory frameworks and international standards can shed light on areas where improvements can be made to maximize the positive impact of banks' social and environmental contributions.

By considering these additional details and tailoring the research approach to the Ethiopian context, researchers can generate valuable insights that are relevant to the specific challenges and opportunities within the Ethiopian banking industry.

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Appendix- : Summary of Secondary Data

YEAR	Asset Size	inflation	irspread	USDBIR	ROE	BANK
2000	6.63	0.054	0.075	8.14	0.2280	AIB
2001	6.81	-0.003	0.075	8.33	0.1511	AIB
2002	7.01	-0.011	0.075	8.54	0.1309	AIB
2003	7.24	0.011	0.075	8.58	0.1460	AIB
2004	7.48	0.073	0.075	8.62	0.2396	AIB
2005	7.71	0.061	0.083	8.65	0.2381	AIB
2006	7.99	0.106	0.083	8.68	0.3665	AIB
2007	8.25	0.158	0.069	8.79	0.4712	AIB
2008	8.48	0.253	0.069	9.24	0.3416	AIB
2009	8.77	0.364	0.069	10.42	0.3981	AIB
2010	8.98	0.028	0.069	12.89	0.3657	AIB
2011	9.22	0.181	0.069	16.12	0.3779	AIB
2012	9.39	0.341	0.069	17.25	0.3215	AIB
2013	9.61	0.135	0.075	18.19	0.2822	AIB
2014	9.9	0.074	0.075	19.07	0.3191	AIB
2015	10.08	0.101	0.075	20.1	0.2704	AIB
2016	10.3	0.080	0.075	21.11	0.2506	AIB
2017	10.6	0.075	0.075	22.41	0.2807	AIB
2018	10.74	0.082	0.065	26.11	0.3282	AIB
2019	10.89	0.089	0.086	27.00	0.3952	AIB
2020	10.96	0.075	0.092	27.02	0.4120	AIB
2000	6.58	0.054	0.075	8.14	0.1394	BOA
2001	6.8	-0.003	0.083	8.33	0.1846	BOA
2002	7.04	-0.011	0.083	8.54	-0.0203	BOA
2003	7.2	0.109	0.069	8.58	0.0575	BOA
2004	7.37	0.073	0.069	8.62	0.2813	BOA
2005	7.63	0.061	0.069	8.65	0.3431	BOA
2006	7.95	0.106	0.069	8.68	0.3021	BOA
2007	8.13	0.158	0.069	8.79	0.2375	BOA
2008	8.36	0.253	0.069	9.24	0.5220	BOA
2009	8.61	0.364	0.075	10.42	0.2802	BOA
2010	8.75	0.028	0.075	12.89	0.3353	BOA
2011	8.89	0.181	0.075	16.12	0.3910	BOA
2012	9.02	0.341	0.075	17.25	0.3183	BOA
2013	9.22	0.135	0.075	18.19	0.3173	BOA
2014	9.33	0.074	0.083	19.07	0.2299	BOA
2015	9.52	0.101	0.083	20.1	0.2265	BOA

2016	9.73	0.080	0.069	21.11	0.2294	BOA
2017	10.4	0.075	0.075	22.41	0.2425	BOA
2018	10.5	0.082	0.065	26.11	0.2235	BOA
2019	10.6	0.084	0.070	26.10	0.2263	BOA
2020	10.42	0.086	0.089	25.69	0.2159	BOA
2000	6.76	0.054	0.069	8.14	0.2041	DB
2001	7	-0.003	0.069	8.33	0.3226	DB
2002	7.3	-0.011	0.069	8.54	0.2810	DB
2003	7.6	0.109	0.069	8.58	0.2990	DB
2004	7.89	0.073	0.069	8.62	0.4651	DB
2005	8.14	0.061	0.075	8.65	0.4174	DB
2006	8.42	0.106	0.075	8.68	0.4922	DB
2007	8.71	0.158	0.075	8.79	0.4906	DB
2008	8.97	0.253	0.075	9.24	0.4552	DB
2009	9.18	0.364	0.075	10.42	0.3879	DB
2010	9.42	0.028	0.083	12.89	0.4079	DB
2011	9.59	0.181	0.083	16.12	0.4511	DB
2012	9.77	0.341	0.069	17.25	0.4887	DB
2013	9.89	0.135	0.069	18.19	0.3974	DB
2014	10	0.074	0.069	19.07	0.3686	DB
2015	10.12	0.101	0.069	20.1	0.3296	DB
2016	10.26	0.080	0.069	21.11	0.2831	DB
2017	10.55	0.075	0.075	22.41	0.2454	DB
2018	10.65	0.082	0.065	26.11	0.2262	DB
2019	10.45	0.035	0.089	27.52	0.3412	DB
2020	10.56	0.056	0.099	26.98	0.4561	DB
2000	5.06	0.054	0.069	8.14	0.0357	NIB
2001	5.82	-0.003	0.075	8.33	0.2765	NIB
2002	6.28	-0.011	0.075	8.54	0.1876	NIB
2003	6.79	0.109	0.075	8.58	0.1486	NIB
2004	7.13	0.073	0.075	8.62	0.2890	NIB
2005	7.46	0.061	0.075	8.65	0.2934	NIB
2006	7.61	0.106	0.083	8.68	0.2907	NIB
2007	7.87	0.158	0.083	8.79	0.2555	NIB
2008	8.2	0.253	0.069	9.24	0.2654	NIB
2009	8.48	0.364	0.069	10.42	0.3015	NIB
2010	8.69	0.028	0.069	12.89	0.3112	NIB
2011	8.87	0.181	0.069	16.12	0.2939	NIB
2012	9.02	0.341	0.069	17.25	0.2549	NIB
2013	9.12	0.135	0.069	18.19	0.2272	NIB
2014	9.28	0.074	0.075	19.07	0.2111	NIB
2015	9.49	0.101	0.075	20.1	0.2025	NIB
2016	9.67	0.080	0.075	21.11	0.1822	NIB
2017	10.32	0.075	0.075	22.41	0.1822	NIB

2018	10.42	0.082	0.065	26.11	0.2176	NIB
2019	10.56	0.092	0.074	26.94	0.2345	NIB
2020	10.74	0.097	0.084	27.34	0.3102	NIB
2000	4.96	0.054	0.075	8.14	0.1071	UB
2001	5.37	-0.003	0.075	8.33	0.1134	UB
2002	5.75	-0.011	0.083	8.54	0.0649	UB
2003	6.15	0.109	0.083	8.58	0.0785	UB
2004	6.51	0.073	0.069	8.62	0.1042	UB
2005	6.98	0.061	0.069	8.65	0.3543	UB
2006	7.38	0.106	0.069	8.68	0.3291	UB
2007	7.69	0.158	0.069	8.79	0.2540	UB
2008	8.09	0.253	0.069	9.24	0.2690	UB
2009	8.44	0.364	0.069	10.42	0.2568	UB
2010	8.68	0.028	0.022	12.89	0.3885	UB
2011	8.95	0.181	0.024	16.12	0.3578	UB
2012	9.08	0.341	0.025	17.25	0.3384	UB
2013	9.21	0.135	0.023	18.19	0.3115	UB
2014	9.38	0.074	0.023	19.07	0.2292	UB
2015	9.57	0.101	0.025	20.1	0.2124	UB
2016	9.76	0.080	0.025	21.11	0.2068	UB
2017	10.34	0.075	0.075	22.41	0.1943	UB
2018	10.44	0.082	0.065	26.11	0.2774	UB
2019	10.56	0.093	0.074	26.89	0.2697	UB
2020	10.37	0.091	0.084	26.84	0.364	UB
2000	6.24	0.054	0.048	8.14	0.0857	WB
2001	6.37	-0.003	0.078	8.33	0.1478	WB
2002	6.47	-0.011	0.078	8.54	0.1339	WB
2003	6.79	0.109	0.010	8.58	0.1690	WB
2004	7.04	0.073	0.015	8.62	0.3544	WB
2005	7.39	0.061	0.017	8.65	0.3810	WB
2006	7.72	0.106	0.019	8.68	0.3978	WB
2007	8.15	0.158	0.021	8.79	0.3970	WB
2008	8.32	0.253	0.021	9.24	0.3138	WB
2009	8.54	0.364	0.023	10.42	0.3062	WB
2010	8.66	0.028	0.024	12.89	0.3019	WB
2011	8.99	0.181	0.025	16.12	0.3426	WB
2012	9.03	0.341	0.025	17.25	0.2857	WB
2013	9.25	0.135	0.025	18.19	0.2457	WB
2014	9.33	0.074	0.025	19.07	0.1930	WB
2015	9.53	0.101	0.026	20.1	0.1874	WB
2016	9.69	0.080	0.026	21.11	0.1705	WB
2017	10.32	0.075	0.075	22.41	0.2111	WB
2018	10.44	0.082	0.065	26.11	0.2962	WB

2019	11.01	0.089	0.064	26.78	0.3674	WB
2020	11.06	0.094	0.067	27.14	0.4231	WB