

Assessment of New Entrant Banks Performance Pre and Post Covid-19 Using the CAMEL Model: A Case Study of Selected banks in Ethiopia

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## **Statement of Declaration**

I, Befikru Masresha have carried out independently a research work on "Assessment of New Entrant Banks Performance Pre and Post Covid-19 Using the CAMEL Model: A Case Study of Selected banks in Ethiopia "in partial fulfillment of the requirements MBA in accounting and finance with the guidance and support of the research advisor.

This study is my own work that has not been submitted for any MA, degree or diploma program in this or other institution and that all source of materials used for this thesis have been duly acknowledged.

Befikru Ma	asresha	
Signature _		

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# St. Mary's University School of Graduate Studies

This is to certify that the thesis prepared by Befikru Masresha, entitled "Assessment of New Entrant Banks Performance Pre and Post Covid-19 Using the CAMEL Model: A Case Study of Selected banks in Ethiopia" and submitted impartial fulfillment of the requirements of MBA in accounting and finance with the regulations of the University and meets the accepted standards with respect to originality and quality.

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# **Acronyms and Abbreviations**

ADDIS Addis international bank

AQ Asset Quality

CA Capital Adequacy

CAMEL Capital adequacy, Asset Quality, Management quality, Earning quality,

Liquidity

CAR Capital Adequacy ratio

CRAR

CLRM Classical Linear Regression Model

DEBUB debub global Bnak

ENAT Enat Bank Sc

L Liquidity

MFIs Micro Finance Institutions

MGT Management Quality

NBE National Bank of Ethiopia

NPA non-performing Assets

ROA Return of Asset

## **Abstract**

The aim of this research is to examine how the profitability and performance of Addis International Bank, Debub Global Bank, and Enat Bank S.C. have been affected by the COVID-19 pandemic. These banks were selected not only because of the global health crisis but also in light of the National Bank of Ethiopia's mandate for them to reach a paid-up capital of 5 billion birr, which is the minimum requirement for operating in the banking sector. These institutions were already facing challenges in meeting this capital threshold prior to the pandemic, with the possibility of forced mergers if they fell short. To gauge the pandemic's impact, this study has compared the banks' performance before and during the pandemic using the CAMEL model. The analysis has focus on CAMEL indicators for Ethiopian commercial banks spanning from 2014 to 2023, employing secondary panel data and an econometric model within the E-Views software.

## **Chapter 1: Introduction**

## 1.1 Background of the Study

Financial institutions or banks play a crucial role not only in financing activities but also in providing a wide range of financial services. For researchers and students of financial performance, the primary focus is on enhancing financial performance to improve financial activities. The measurement of financial performance in financial institutions is highly advanced within the fields of finance and management.

Financial institutions or banks play a crucial role not only in financing activities but also in providing a wide range of financial services. For researchers and students of financial performance, the primary focus is on enhancing financial performance to improve financial activities. The measurement of financial performance in financial institutions is highly advanced within the fields of finance and management.

The banking sector is a key player in boosting and regulating the economy and financial markets. This sector is crucial for maintaining stability during global crises. It plays a significant role in ensuring financial stability and the proper circulation of money. The COVID-19 pandemic has impacted critical performance indicators of banks, such as profitability, capital adequacy, asset quality, management efficiency, earnings ability, liquidity, and risk sensitivity, on a global scale. COVID-19 has imposed both macroeconomic and microeconomic shocks on economies and individuals, negatively affecting major macroeconomic factors like GDP growth, inflation, exchange rates, and unemployment.

#### 1.2 Statement of the Problem

Covid-19 created a several challenge: health challenge, physiological challenges and economic challenge globally. This created economic shocks to a lot of businesses. From lack of preparation before the pandemic to, lack of information as this was a new phenomenon, misinformation and negligence during the pandemic special at the initial stages of the pandemic and the mishandled lockdown to stop the spread of the virus has made the effect of the pandemic far greater than anticipated in the beginning of the pandemic. The world-wide Economy was heavy after from the Holt on company's production and distribution to travel restriction affecting the import export and the lock down heavy affecting the financial institution.

Economic Observatory stated that the banking sector is also affected, although mostly indirectly. While banking services can be provided remotely and do not rely on direct customer contact, the linkage of the sector with the real sector as provider of payment, savings, and credit and risk management services

extends the negative effect of the Covid-19 crisis to banks and other financial institutions. At the same time, the banking sector has the role of supporting firms and households during this period of lower revenues and incomes, which has triggered important policy actions by financial supervisors and governments.

In 2021, across the globe, economies have been hit hard and fast by COVID-19 (IMF 2021). In the US, unemployment spiked in the first half of 2020 at an unprecedented speed. While such a shock is unlikely to leave banks unaffected, equity buffers have improved significantly since the 2007 financial crisis, and monetary and regulatory policy responses were swift and radical to strengthen the resilience of the financial system (Feyen et al. 2020). In addition, governments stepped in to support the real economy, which indirectly benefitted banks.

Banking by nature is a fragile undertaking which is likely to affect and be affected by the performance of the economy as well as the wellbeing of other sectors. Meaning it is highly regulated sectors of the economy to avoid macro-economic failures.

March 13, 2020, is the date on which the Ethiopian Federal Ministry of Health has confirmed a coronavirus disease (COVID-19) case in Addis Ababa, Ethiopia. Banks faced common problem globally and locally, still little known how the pandemic affected banks performance and profitability during the unprecedented challenging period. And there is need to know how the bank is pursuing the interest of the owners in terms of wealth maximization and meeting national banks directive of minimum paid up capital.

Even though a plenty of studies investigated the banks performance during covid-19 in different countries especially in the Europe, USA and in Asia; there is a lack of empirical evidence from the developing countries context like Ethiopia, specifically private commercial banks in particular. To the best of our knowledge, this is the first comprehensive review of these three banks consolidated financial performance evaluation in the context of the threats posed by the COVID-19 pandemic.

In this study, therefore, an attempt will be made to assess the growth and potential hardships caused by pandemic through an empirical evaluation of the performance and profitability of the bank pre and during covid-19 outbreak using CAMEL Model.

## 1.3 Objective of the Study

## 1.3.1 General objective

The general objective of this study is to analyse the financial performance of selected private commercial banks and to rank the respective private commercial banks based on their performances using the CAMEL model.

## 1.3.2 Specific objective

- 1. To check the capital adequacy level of the three banks
- 2. To evaluate the liquidity positions of the three banks
- 3. To measure the management capability of the three banks
- 4. To examine the earning quality of private the three banks
- 5. To examine the asset quality of private the three banks

## 1.4 Scope of the Study

The study has been conducted using CAMEL rating method with the help of data obtained from audited financial statements. The audited financial statements are the bank's annual reports of nine year from 2013/2014 -2022/2023 and the audited financial records are obtained from the company annual report. The researcher believe that the 9 year bank performance from the audited annual report offers comprehensive information about the financial performance of the three banks.

## 1.5 Significance of the Study

The researcher hoped that this analytical research will play its part in giving insight to shareholders and investors about the key factors that affect the banks performance, to the bank management as well as users of the financial statements on how the banks performed pre and during and after the COVID 19 pandemic. Also it will be useful for the management on setting of and selection of appropriate financing and operating strategies to be competent in the banking industry.

The study is conducted to analyses the performance of banks with respect to a CAMEL model. This research is focused on CAMEL Model as it emphasizes on different indicators that are specifically important for safety and soundness of the banking industry.

The findings of this research will contribute to the existing literature on bank performance as well as bridge the knowledge gap currently exists related to bank performance measures available. it will be beneficial for management to formulate a proactive strategy for survival and long term growth of the organization. It will also helpful for the reader to know the specific details of the model which in turn lead

to identifying the strengths and weaknesses of the banks, it will give a better understanding and knowledge about the performance of the banking industry particularly in Ethiopia.

In addition to that, it helps the researcher to employ their theoretical knowledge in to practice as well as a base for future researches

#### 1.6 Structure of the thesis

Chapter 1 has presented the introduction, statement of the problem, research questions, significance of the study, and limitations of the study. Chapter 2 contains the review of related literature definition of terms, and research related to the problem being investigated. The methodology and procedures used to gather data for the study are presented in Chapter 3.in chapter 4 the results where shown in various tables, graphs and discussed with the implication the final chapter

# **Chapter 2: Literature Review**

#### 2.1 Introduction

Addis international bank is established by diversified groups of shareholders, Cooperatives, Micro Finance Institutions (MFIs), Iddirs, other business organizations and individual citizens. The major shareholders of the Bank are Cooperatives and their members.

The Cooperatives are mainly engaged in the provision of financial services, export business, manufacturing and services. The members of the major shareholders are mainly low- and middle-income citizens. The Micro Finance Institutions also address the financial needs of the "Unbanked" citizens.

Addis international bank endeavours to be an inclusive Bank that addresses the financial needs of different income groups in the country. It has the plan to penetrate the huge market that host low- and middle-income people through Cooperatives and Micro Finance Institutions. Addis international bank will expand its operating by opening new branches at market centres within and outside Addis.

Debub Global Bank S.C. is a privately owned share company which has started operation on August 28, 2012. The bank is established to provide a wide range of banking services to both domestic and international businesses with quality customer services, higher value creation for stakeholders and to be a responsive corporate social citizen by effectively blending commercial pursuit with social responsibilities.

the Bank was established with a subscribed capital of Birr 266.9 Million and a paid-up capital of Birr 138.9 million. Currently, the Bank has a total capital of Birr 339.2million, which includes the paid-up capital, legal and special reserves. In the coming 5 years, it has planned to raise its paid-up capital to two-billion Birr. At the same time, it plans to expand its branches in all parts of the country and to deliver quality and a wide variety of banking services.

Enat Bank was initiated by a diverse group of 11 powerful Ethiopian women, and this tight team of founders has shepherded Enat from an idea to a reality. Enat is a unique success story that should make all Ethiopians proud.

The founders of Enat had a vision to create a new bank that was open to everyone, with a special focus on women. Such a focus was necessary to help women access credit, among other products. While the team found many supporters, raising the funds constituted a major hurdle. But the more difficulties the team faced, the more unified and determined they became to make Enat a reality. Each founder contributed their own time and resources.

The establishment of Enat marks a unique point in Ethiopian and African banking history. Women own 64 percent of the bank, and compose many major leadership positions from the senior bank management to the Board of Directors. The founders succeeded in their vision through commitment and hard work, and are prepared to continue to nurture the bank as it establishes itself. The founders believe after Enat succeeds in Ethiopia, it can be expanded across Africa.

Bank's supervisory agencies are responsible for monitoring the financial conditions of commercial banks and enforcing related legislation and regulatory policy. Accordingly, CAMELS rating are one of the rating systems applied for regulatory policy and to rank the overall performances of commercial banks. CAMEL is a standardized financial rating system having short form of five measures namely: Capital adequacy, Asset quality, Management efficiency, Earnings quality and Liquidity. CAMEL method is commonly used for the evaluation of performance and ranking of banks.

CAMELS rating approach is also other contributor in the financial performance analysis of banks.

CAMELS rating is a supervisory rating system first developed in the U.S. to label a banks over all condition. It has become functional to every bank and credit union in the U.S. and outside the U.S. by various banking supervisory regulators. The short form "CAMEL" refers to the five components of a bank's condition namely: Capital adequacy, Asset quality, Management efficiency (soundness), Earnings, and Liquidity, before the sixth component, Sensitivity to market risk, was added in 1997 and became "CAMELS". Each of the component factors is rated on a scale of 1(best) to 5 (worst). According to Wirnkar&Tanko, 2008 as cited on Gulgzoztorul (2011), rate of 1 stands for sound in every respect, a rate of 2 shows sound but has modest weaknesses, 3 indicates weaknesses, 4 implies serious weaknesses and finally a rating of 5 tells us critical weaknesses. In U.S this rating system is used by federal banking supervisors like (Federal Reserve, Federal Deposit Insurance Corporation (FDIC), and the Office of the Comptroller of the Currency (OCC) and other financial supervisory agencies to provide a convenient summary of bank conditions (Wikipedia).

According to the Federal Deposit Insurance Corporation (FDIC, 2015), following is the detail of the CAMELS composite ratings range from 1 to 5:

<sup>\*</sup>Composite "1"- Institutions in this group are basically sound in every respect.

<sup>\*</sup>Composite "2"-Institutions in this group is fundamentally sound, but may reflect modest weaknesses correctable in the normal course of business.

<sup>\*</sup>Composite "3"- Institutions in this category exhibit financial, operational, or compliance weaknesses ranging from moderately severe to unsatisfactory.

<sup>\*</sup>Composite "4"- Institutions in this group has an immoderate volume of serious financial weaknesses or a combination of other conditions that are unsatisfactory.

\*Composite "5"-This category is reserved for institutions with an extremely high immediate or near term probability of failure.

#### 2.2 Theoretical Review

#### 2.2.1 Financial Performance

Financial bank performance is highly influenced by both internal and external factors. The internal factors are within the scope of the bank and are easy to be manipulated and differ from bank to bank. It includes bank size, capital, management efficiency and risk management capacity.

profitability is a function of internal factors that are mainly influenced by a bank's management decisions and policy objectives such as the level of liquidity, provisioning policy, capital adequacy, expense management and bank size On the other hand external factors are macroeconomic variables such as interest rate, inflation, economic growth and other factors like ownership, Athanasoglou et al. (2006)

## 2.2.2 Components of CAMEL Rating System

Bank's supervisory agencies are responsible for monitoring the financial conditions of commercial banks and enforcing related legislation and regulatory policy. Accordingly, CAMEL rating is one of the rating systems applied for regulatory policy and to rank the overall performances of commercial banks. CAMEL is a standardized financial rating system having short form of five measures namely: Capital adequacy, Asset quality, Management efficiency, Earnings quality and Liquidity. CAMEL method is commonly used for the evaluation of performance and ranking of banks.

#### 2.2.2.1 Capital Adequacy

Capital adequacy shows whether banks have adequate capital in order to meet the withdrawal demand of its customers in crisis period. In other words, it reflects whether the bank has enough capital to bear unexpected losses arising in the future. ), it is prominent indicators of the financial health of a banking system. It is very useful for a bank to conserve & protect stakeholders" confidence and preventing the bank from being bankrupt.

The following ratios are included under this category by various researchers for analysis purpose.

Capital Adequacy Ratio (CAR) measures the ability of the bank to absorbing loses arising from risk assets. The higher the ratio represents better performance of the bank. It shall be computed as tier I capital +tier II capital/risk weighted asset. Tier I capital represents for Equity Share Capital + Disclosed Reserves and Tier II capital is the sum of Undisclosed Reserves + General loss Reserves + Subordinate term debts.

Higher ratio is an indication of less protection for the depositors and creditors and lower ratio is seen as better performance of the bank. Misra&Aspal (2013). Advance to asset ratio indicates the proportion of loans and advances deployed to the total funds. Higher the ratio better is the availability of funds for loans and advances out of their total assets and vice versa . Government Securities to total investment ratio shows the percentage of risk-free investment in bank's investment portfolio. It will be computed as [(Investment in government securities inside the country +Investment in government securities outside the country)/ Total Investment] × 100. Higher government securities to total investment ratio is an indication of risk-free investment in bank's investment portfolio. However, it may affect the return on investment because of lower return from government securities

## 2.2.2.1.1.1 Capital Risk Adequacy Ratio:

CRAR is a ratio of Capital Fund to Risk Weighted Assets. Reserve Bank of India prescribes banks to maintain a minimum Capital to risk-weighted Assets Ratio (CRAR) of 9 % with regard to credit risk, market risk and operational risk on an ongoing basis, as against 8 % prescribed in Basel documents. Total capital includes Tier-I capital and Tier-II capital. Tier-I capital includes paid up equity capital, free reserves, intangible assets etc. Tier-II capital includes long term unsecured loans, loss reserves, hybrid debt capital instruments etc. The higher the CRAR, the stronger is considered a bank, as it ensures high safety against bankruptcy.

CRAR = Capital/ Total Risk Weighted Credit Exposure

## 2.2.2.1.2 **Debt Equity Ratio:**

This ratio indicates the degree of leverage of a bank. It indicates how much of the bank business is financed through debt and how much through equity. This is calculated as the proportion of total asset liability to net worth. 'Outside liability 'includes total borrowing, deposits and other liabilities. 'Net worth' includes equity capital and reserve and surplus. Higher the ratio indicates less protection for the creditors and depositors in the banking system.

Borrowings/ (Share Capital + reserves)

## 2.2.2.1.3 Total Advance to Total Asset Ratio (NPL ratio)

This is the ratio of the total advances to total asset. This ratio indicates banks aggressiveness in lending which ultimately results in better profitability. Higher ratio of advances of bank deposits (assets) is preferred to a lower one. Total advances also include receivables. The value of total assets is excluding the revolution of all the assets.

Total Advances/ Total Asset

#### **2.2.2.1.4** Government Securities to Total Investments:

The percentage of investment in government securities to total investment is a very important indicator, which shows the risk taking ability of the bank. It indicates bank's strategy as being high profit high risk or low profit low risk. It also gives view as to the availability of alternative investment opportunities. Government securities are generally considered as the most safe debt instrument, which, as a result, carries the lowest return. Since government securities are risk free, the higher the government security to investment ratio, the lower the risk involved in a bank's investments.

Government Securities/ Total Investment

## 2.2.2.2 Asset Quality

The quality of assets is an important parameter to gauge the strength of a bank. The logic behind calculating the asset quality is to determine the employment of assets in investment using net income as a fraction of the bank total assets (ROA). One important objective of the financial sector reforms is to improve the quality of loan assets and assets have been classified into performing and nonperforming assets. Assets that have low quality usually have higher possibility to become a Non-Performing Loan. Non-Performing loans are usually bad debts that are in default or they are near to be in default.

Doubtful assets are those assets that have remained substandard for 18 months. The provision of 100% of the provisions is to be made by the realizable value of the security to which a bank has recourse.

The quality of assets has been examined with the help offollowing three ratios:

Net NPAs to Total Assets reflects the efficiency of bank in assessing the credit risk and recovering the debts. In this ratio, the Net NPAs are measured as a percentage of total assets. The lower the ratio reflects, the better is the quality of advances. Misra&Aspal (2013). According to Misra&Aspal (2013) ,Net NPAs to Net Advancesis the most standard measure to judge the assets quality, measuring the net nonperforming assets as a percentage of net advances. Net NPA will be computed as Net NPAs = Gross

NPAs – (Provisions on NPAs + Interest on suspense account. Investments to total asset ratio is used as a tool to measure the percentage of total assets locked up in investment. Alternatively, it indicates the extent of development of assets in investment as against advances. This ratio is used as a proxy to measure the quality of assets.

## NPA: Non-Performing Assets:

Advances are classified into performing and non-performing advances (NPAs) as per RBI guidelines.

NPAs are further classified into sub-standard, doubtful and loss assets based on the criteria stipulated by RBI. An asset, including a leased asset, becomes nonperforming when it ceases to generate income for the Bank.

An NPA is a loan or an advance where:

- 1. Interest and/or instalment of principal remains overdue for a period of more than 90 days in respect of a term loan;
- 2. The account remains "out-of-order" in respect of an Overdraft or Cash Credit (OD/CC);
- 3. The bill remains overdue for a period of more than 90 days in case of bills purchased and discounted;
- 4. A loan granted for short duration crops will be treated as an NPA if the instalments of principal or interest thereon remain overdue for two crop seasons; and
- 5. A loan granted for long duration crops will be treated as an NPA if the instalments of principal or interest thereon remain overdue for one crop season.

The Bank classifies an account as an NPA only if the interest imposed during any quarter is not fully repaid within 90 days from the end of the relevant quarter. This is a key to the stability of the banking sector. There should be no hesitation in stating that Indian banks have done a remarkable job in containment of non-performing loans(NPL) considering the overhang issues and overall difficult environment.

The following ratios are necessary to assess the asset quality.

#### **2.2.2.2.1 Net NPA ratio:**

This ratio is used to check whether the bank's gross NPAs are increasing quarter on quarter or year on year. If it is, indicating that the bank is adding a fresh stock of bad loans. It would mean the bank is either not exercising enough caution when offering loans or is too lax in terms of following up with borrowers on timely repayments.

#### 2.2.2.2.2 ADVANCES /TOTAL ASSETS

This ratio is used to check how much of the banks total asset is invested in the forms of loans

#### ADVANCES /TOTAL ASSETS

#### 2.2.2.3 Management Efficiency

Management is most important ingredient that ensures the sound functioning of banks. It is another essential component of the CAMEL model that guarantee the growth and survival of a bank. (Misra&Aspal (2013). With increased competition in the banking sector, efficiency and effectiveness have become the rule as banks constantly strive to improve the productivity of their employees. In order to satisfy customers, banks maintained extended working hours, flexible time schedules, outsourcing marketing etc. The performance of Management capacity is usually qualitative and can be understood through the subjective evaluation of Management systems, organization culture, and control mechanisms and so on.

Total advances to total deposits ratio measures the efficiency of management in converting the deposits available with the bank into high earning advances. Total deposits include demand deposits, savings deposits, term deposits and deposits of other banks. Total advances also include the receivables. Improvement and enlargement of business (total of deposits and advances) is the main function of banks. Increase in business per employee is an important indicator of productivity of banks because employees are generally considered as input and business as output of a bank. This ratio is used to find out whether the bank is relatively under or over staffed. Higher the ratio better is the productivity efficiency of the employees of the banks. Profit per employee is used to measure the productivity efficiency of employees of the banks or this ratio is a ratio to check efficiency of the bank in maximizing profit per employee. Improvement in profit per employee advocates efficiency of the management effective utilization of employee as an input and profit as a measure of output. Expenditure to income is one of the management efficiency measurement, which is used to measures the amount of expenditure incurred to generate a 1 birr income. The lower the ratio is better performance of the management.

The ratios used to evaluate management efficiency are described as under:

## **2.2.2.3.1** Total Advance to Total Deposit Ratio:

This ratio measures the efficiency and ability of the banks management in converting the deposits available with the banks (excluding other funds like equity capital, etc.)Into high earning advances. Total deposits include demand deposits, saving deposits, term deposit and deposit of other bank. Total advances also include the receivables.

Total Advance/ Total Deposit

## 2.2.2.3.2 Business per Employee:

Revenue per employee is a measure of how efficiently a particular bank is utilizing its employees. Ideally, a bank wants the highest business per employee possible, as it denotes higher productivity. In general, rising revenue per employee is a positive sign that suggests the bank is finding ways to squeeze more sales/revenues out of each of its employee.

Total Income/ No. of Employees

## 2.2.2.3.3 Profit per Employee:

This ratio shows the surplus earned per employee. It is arrived at by dividing profitafter tax earned by the bank by the total number of employee. The higher the ratioshows good efficiency of the management.

Profit after Tax/ No. of Employees

## **2.2.2.4 Earnings**

The Earnings/Profit is a Conventional Parameter of measuring financial performance. Higher income generally reflects a lack of financial difficulties and so would be expected to reduce the likelihood of failure of a bank (Cole and Gunther, 1996). It is another important parameter for judging the operational performance of a bank. Total income of a bank is divided into two parts. Income from core activities (i.e. income from lending operations) and income generated by noncore activities like investments, treasury operations, corporate advisory services etc. The excellence of earnings determines the capability of a bank to earn consistently. It mainly determines the profitability and productivity of the bank, explains the growth and sustainability in future earnings capacity. In order to measure earning quality of the bank the

following ratios were used in different literatures.(NIM) is an important measure of a bank "score income i.e. income from lending operations. NIM is the difference between the interest income and the interest expended. In the computation of Net interest margin to total asset, NIM is expressed as a percentage of total assets. A higher spread indicates the better earnings given the total assets and vice versa.

Net profit to total asset ratio reflects the return on assets employed or the efficiency in utilization of assets. It is calculated by dividing the net profits with total assets of the bank. Higher the ratio reflects better earning potential of a bank in the future. Misra&Aspal (2013) Percentage growth in net profit is the ratio of percentage growth in net profit after tax over the previous year or last year. Higher the ratio better is the profitability of the bank and vice versa. Operating profit to total asset ratio indicates how much a bank can earn from its operation after meeting its operating expenses for every birr investment in total asset. Higher the ratio shows the better profitability of the bank and vice versa. The interest income to total income ratio reflects the banks capability in generating income from its lending activities. Interest income includes income on loans and advances, interest earned on deposits maintained in different banks. On-interest income is any income earned by the banks other than interest income. Non-Interest income to total income ratio of non-interest income to total income measures the income from various operations other than lending as a percentage of total income.

## 2.2.2.4.1 Dividend Pay-out Ratio:

Dividend pay-out ratio shows the percentage of profit shared with the shareholders. The more the ratio will increase the goodwill of the bank in the share market will strengthen more.

Dividend/ Net profit

#### **2.2.2.4.2 Return on Asset:**

Net profit to total asset indicates the efficiency of the banks in utilizing their assets in generating profits. A higher ratio indicates the better income generating capacity of the assets and better efficiency of management in future.

Net Profit/ Total Asset

#### 2.2.2.4.3 Interest Income to Total Income:

Interest income is a basic source of revenue for banks. The interest income total income indicates the ability of the bank in generating income from its lending. Another words, this ratio measures the income from lending operations as a percentage of the total income generated by the bank in a year. Interest income includes income on advances, interest on deposits with the RBI, and dividend income.

Interest Income/ Total Income

## 2.2.2.4.4 Other Income to Total Income:

Fee based income account for a major portion of the bank's other income. The bank generates higher fee income through innovative products and adapting the technology for sustained service levels. The higher ratio indicates increasing proportion of fee based income. The ratio is also influenced by gains on government securities, which fluctuates depending on interest rate movement in the economy.

Other Income/ Total Income

#### **2.2.2.5 Liquidity**

Public deposit their money in banks mainly for two reasons, the first one is for safety and the other is to earn interest income. Thus, repayment of deposits along with timely payment of interest is of crucial importance for a bank. For this reason, banks should always maintain sufficient liquidity. Liquidity shows the ability of the banks to discharge their liabilities as and when they mature. Or, it is the ability of the banks to convert non-cash assets into cash as and when needed. In order to examine the liquidity position of banks, there are four ratios used by different authors. Liquid Assets to demand deposits ratio measures the ability of a bank to meet the demand for withdrawal of cash from demand deposits in a particular year. It is calculated by dividing liquid assets by total demand deposits. Liquid assets include cash in hand, balances with banks in country and outside the country and money at call on short notice. (Jayanta k. 2012).

Liquid assets to total deposits ratio indicate the ability of the bank to meet its deposit obligations with available liquid funds. Total deposits include demand deposits, savings deposits, term deposits and other deposits. Liquid assets to total assets measure of liquidity indicate the percentage of a bank's total assets in liquid form. Higher the percentage better is the liquidity and vice versa. Term deposit to total deposit ratio indicates that total proportion of term deposit in the total deposit. If the proportion of term deposit is

more in total deposit that is not good for long-term survival of any bank. Lowest ratio of term deposit to total deposit is favorable one. (AshishGupta, 2015)

An asset is liquid if it can easily be converted to cash.

The liquidity of an institution depends on:

- The institution's short-term need for cash:
- Cash on hand;
- Available lines of credit;
- The liquidity of the institution's assets;
- The institution's reputation in the marketplace—how willing will counterparty is to transact trades with or lend to the institution?

The ratios suggested to measure liquidity under CAMELS Model are as follows:

## 2.2.2.5.1 Liquidity Asset to Total Asset:

Liquidity for a bank means the ability to meet its financial obligations as they come due. Bank lending finances investments in relatively illiquid assets, but it fund its loans with mostly short term liabilities. Thus one of the main challenges to a bank is ensuring its own liquidity under all reasonable conditions. Liquid assets include cashing hand, balance with the RBI, balance with other banks (both in India and abroad), and money at call and short notice. Total asset include the revaluations of all the assets. The proportion of liquid asset to total asset indicates the overall liquidity position of the bank.

Liquidity Asset/ Total Asset

#### 2.2.2.5.2 Government Securities to Total Asset:

Government Securities are the most liquid and safe investments. This ratio measures the government securities as a proportion of total assets. Banks invest in government securities primarily to meet their SLR requirements, which are around 25% of net demand and time liabilities. This ratio measures the risk involved in the assets handy a bank.

Government Securities/ Total Asset

## **2.2.2.5.3 Approved Securities to Total Asset:**

Approved securities include securities other than government securities. This ratio measures the Approved Securities as a proportion of Total Assets. Banks invest in approved securities primarily after meeting their SLR requirements, which are around25% of net demand and time liabilities. This ratio measures the risk involved in the assets hand by a bank.

Approved Securities/ Total Asset

## 2.2.2.5.4 Liquidity Asset to Demand Deposit:

This ratio measures the ability of a bank to meet the demand from deposits in particular year. Demand deposits offer high liquidity to the depositor and hence banks have to invest these assets in a highly liquid form.

Liquidity Asset/ demand Deposit

## 2.2.2.5.5 Liquidity Asset to Total Deposit:

This ratio measures the liquidity available to the deposits of a bank. Total deposits include demand deposits, savings deposits, term deposits and deposits of other financial institutions. Liquid assets include cash in hand, balance with the RBI, and balance with other banks (both in India and abroad), and money at call and short notice.

Liquidity Asset/ Total Deposit

## 2.2.3 Overview of the COVID-19

The World Health Organization (WHO) declared COVID-19 a global pandemic in March 2020 . This global pandemic has caused unparalleled ruffles for global Economic and human life. As a result, the world's global trade suffered much due to the COVID-19 pandemic in 2020, and the growth trend of the world economy Expects to remain low compared with the pre-pandemic situation. The International Monetary Fund (IMF) estimated that due to COVID-19, global GDP would lose USD 3.86 trillion in 2020. According to the World Bank Report, the growth of the world Economy was

predicted to be squeezed at 5.2% due to the onset period of the pandemic .In Statistic, stated that major economies were forecasted to lose 2.9% of GDP after 2020. Consequently, the COVID-19 pandemic affected USD 90 trillion of global economies worldwide. Despite the negative aspects, the global economy is recovering.

the Ethiopian Federal Ministry of Health has confirmed a coronavirus disease (COVID-19) case on March 13, 2020, in Addis Ababa, Ethiopia. Mid-March 2020, is date in third quarter of DB FY 2019/2020. Consequently, according evidence from DB FY 2019/2020 report, the bank faced liquidity stress and the unprecedented global banking and national challenges due to the outbreak of the COVID-19 pandemic.

## 2.2.4 Impacts of the COVID – 19 ON Banks

The banking sector is affected, although mostly indirectly. While banking services can be provided remotely and do not rely on direct customer contact, the linkage of the sector with the real sector as provider of payment, savings, and credit and risk management services extends the negative effect of the Covid-19 crisis to banks and other financial institutions. At the same time, the banking sector has the role of supporting firms and households during this period of lower revenues and incomes, which has triggered important policy actions by financial supervisors and governments. (Economic Observatory, 2020)

Beck and Keil, 2021, stated across the globe, economies have been hit hard and fast by COVID-19 (IMF 2021). In the US, unemployment spiked in the first half of 2020 at an unprecedented speed. While such a shock is unlikely to leave banks unaffected, equity buffers have improved significantly since the 2007 financial crisis, and monetary and regulatory policy responses were swift and radical to strengthen the resilience of the financial system

Thanks to the regulatory protection, the well-functioning economy and the highest bank to population scenarios that sustained for more than two decades, the sector has been enjoying lucrative banking market that easily translated to profitability and earnings to its shareholders. However, similar to other business undertakings and economy wide scenario, the sector has a higher chance to be affected by the COVID 19 unless timely remedial measures are in-placed. This is because banking by nature is a fragile undertaking which is likely to be affected by the performance of the economy as well as the wellbeing of other sectors.

More problematically, the Ethiopian banking sector has been characterized by weak proactive bank risk management, expensive branch expansions, low levels of technology utilization (use of financial technology), huge reliance on customers contact service, and concentration on urban areas over the past two decades. Therefore, private commercial banks cannot continue doing business using traditional business models in this very competitive industry and especially in this highly volatile covid-19 time period.

## 2.2.5 Empirical Review

Siva and Natarajan (2011) empirically tested the applicability of CAMEL and its consequential impact on the performance of SBI Groups. The study found that CAMEL scanning helps the bank to diagnose its financial health and alert the bank to take preventive steps for its sustainability. This explained examined the performance of 65 Indian banks according to the CAMEL Model and concluded that better service quality, innovative products and better bargains were beneficial because of the prevailing tough competition. Saminathan (2016) evaluated financial performance of 18 private banks, 25 public banks and 8 foreign Indian banks for the purpose of ranking one against the other. The result shows that there is a statistically significant difference between the CAMEL ratios of the selected Public Sector Banks, Private Sector Banks and Foreign Banks in India.

Mulualem(2015) examined financial performance of 14 Ethiopian Commercial Banks using CAMEL approach from year 2010 to 2014. The study used quantitative research approach, and analysed by using multiple linear regression models for two profitability measures: ROE and ROA. Fixed effect regression model was applied to investigate the impact & relationship of CAMEL factors with bank profitability measures separately. The empirical result shows that capital adequacy, Asset Quality and Management efficiency have negative relation whereas earning and liquidity shows positive relationship with both profitability measures with strong statically significance except Capital Adequacy which is insignificant for ROA whereas Asset quality for ROE.

The global health crisis caused by COVID-19 overwhelmed the health care capacity of almost the entire world including the developed economies that was assumed to have the best healthcare system. Evidently that was not the only sector affected adversely, the unprecedented macroeconomic and health systems shocks are likely to have spill over effects on financial systems of these nations.

Among similar studies conducted by different authors around the world Candera and Dwi (2020) in their comparative research of the financial performance by Indonesian Islamic banking before and during the COVID 19 pandemic have assessed secondary data from the banks using multivariate analysis of variance (MANOVA) and come up with answer to their research questions. They tested what they claimed to be the main vulnerable areas which are the effect on Non-Performing Financing (NPF), Capital Adequacy Ratio (CAR) and significance value of the Return on Assets (ROA) variables and find out that the effect of COVID 19 in Islamic banking in Indonesia did not make a significant difference both in terms of

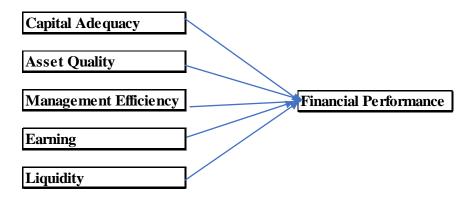
Capital Adequacy Ratio (CAR) and Return on Assets (ROA) but noted that there is a significant difference on Non- Performing Financing (NPF).

Ndungu (2021) relaying on data from the Central Bank of Kenya (CBK) and revealed that the adverse effect of the pandemic on the local banks was reflected predominantly on banks who have heavily lent to small and medium-sized enterprises (SME). According to Ndungu (2021) due to the measure taken by the government to prevent the spread of infection, businesses around the nation went down. Hence these small and medium-sized enterprises (SME) find themselves in a situation where they found it hard to repay their loans; as a result, the banks' loan portfolio is harmed. For the first and second quarter of 2020 fiscal year the non-performing Loans (NPL) for the largest commercial banks in Kenya have shown increment, this leads to the fall of loan portfolio of these commercial banks. While concluding, the author indicated that the pandemic has adversely affected the banking Industry in Kenya reducing revenue, increasing loan loss provision and increasing operational costs that are resulted from complying the government's regulations on the infection preventive measures.

Ephrem Endalamaw (2021) Stated that banking sector Ethiopia continues to show strong year-on-year growth in deposits and in lending, both of which are up around 28 percent from year ago levels. Growth rates were even stronger at private banks (where deposits were up 40 percent and lending up 46 percent from year-ago levels), while CBE showed a slowdown in credit growth despite a 20 percent growth in deposits. The likelihood of a major NPL problem at private banks still appears very low and most banks are, in any case, well-provisioned and well-capitalized for any surprises on this front. Nine-month data suggest record levels of income and profits will be reported by both the public and private banks when they close their financial year at the end of June 2021. Aslo showed that According to DB 2019/20 report, the profit before tax of the Bank reached Birr 1.8 billion by the end of June 2020 reflecting a growth by 39.9% compared to last year same period. As a result, the earning per share (EPS) stood at Birr 490 showing an increase of 20.2% compared to last year same period according to the United Nation's World Economic Situation and Prospects (WESP) mid-2020 report, the global economy is projected to contract by 3.2%, against the backdrop of the devastating coronavirus pandemic.

# 2.2.6 Conceptual Framework

Key variables and their interconnections were diagrammatically shown in the figure below



## **Chapter 3: Research Design and Methodology**

#### 3.1 Introduction

## 3.1.1 Research Design

This particular study has employed quantitative research approach and secondary data will be used. As mentioned in the objective of this study, the aim of this research is to assess COVID 19 on the banking performance specific to the three banks. Descriptive design is suitable for answering research questions like, what, when, where, and how. He also indicated that this design helps to describe relationships between variables. Thus, the researcher chooses descriptive research design as the basic concern of this study is to assess and answer the question, how COVID-19 affected the profitability and performance of the Banks

#### 3.1.2 Data Collection

Panel data was retrieved from the financial statements of the studied banks, which were collected from the respective bank websites. Additionally, data was gathered from various articles, journals, websites, newspapers, and magazines to provide generalization in this paper.

## 3.1.3 Population and Sample

The population and sample of this study used commercial Banks registered by National Bank of Ethiopia (NBE) which is the controller of all banks in Ethiopia. The target population for the purpose of the study were selected using purposive sampling, commercial Banks in Ethiopia, which were the last 3 banks to be operational before the amendment on the formation of banks policy by NBE increasing the minimum paid up capital from 75 million to 500 million and finally to 5 billion making the selected banks under the required capital

#### 3.1.4 Data Analysis

In the methodology section, I first divided our study period into two segments, with terms from the year 2013 to 2019 serving as the pre-pandemic period of COVID-19, and terms from the year 2020 to 2021 representing the pandemic period of COVID-19. In the case of regression analysis, we considered the years 2010 to 2019 as the pre-pandemic period in order to explore the profitability condition of the banks during the COVID-19 period

#### 3.1.5 Model Specification

Multiple regression of financial performance versus CAMEL components was applied to establish the effect between variables. The model treats financial performance of commercial banks as dependent variable while the independent variable CAMEL components

## 3.1.6 Description of Variables

## 3.1.6.1 Dependent Variables

## 3.1.6.1.1 CAMEL composite

## 3.1.6.2 Independent Variables

## 3.1.6.2.1 Capital adequacy ratio

Capital adequacy is also called the capital-to-risk-weighted asset ratio, which computes the financial strength of banks considering their assets and capital

#### 3.1.6.2.2 Debt-to-asset ratio

Debt-to-asset ratio is a type of leverage ratio that expresses the portion of debt both short term and long term compared with the total assets of the firm

## 3.1.6.2.3 Debt-to-equity ratio

Debt-to-equity ratio is defined as a financial ratio that represents the proportion of debt in terms of the shareholders' equity that is used to finance the company's assets. According to accounting tools, the debt-to-equity ratio measures the financial structure risk of a company by dividing its total debts by its total equity

## 3.1.6.2.4 Equity-to-asset ratio

Equity-to-asset ratio refers to how much a firm's assets are funded by shareholders' equity rather than debt

#### 3.1.6.2.5 Loan-to-asset ratio

Loan-to-asset ratio is a financial ratio that represents the portion of the loan amount compared to the total assets of the company.

## 3.1.6.2.6 Liquid-asset-to-total assets ratio

Liquid-asset-to-total-assets ratio expresses how much of a cash asset or cash equal asset is available in terms of total assets of the firm.

## 3.1.6.2.7 Loan-to-deposit ratio

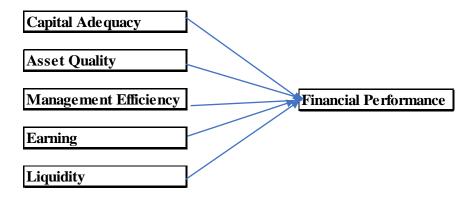
Loan-to-deposit ratio is a ratio that measures a bank's liquidity position by comparing the loan amount a bank disburses with the deposit amount it receives

## 3.1.6.2.8 Non-performing loan rate

Non-performing loan rate is used as a tool for measuring the credit risk of banks, where a higher ratio indicates a higher chance of losses due to the loan default by the borrowers

## **3.1.6.2.9** Bank size

Bank size is the natural logarithm form of a bank's total assets



# **Chapter 4: Findings/Data Analysis**

## **4.1.1 Descriptive statistics**

This section presents the descriptive statistics of dependent and independent variables used in the study for the sample banks.

## 4.1.1.1 CLRM assumptions and Diagnostic tests

The diagnostic tests were undertaken to ensure that the data fits the basic assumption of the Classical linear regression model. Test of the classical linear regression model assumptions Were presented as follows

## 4.1.1.2 Heteroskedasticity test

The homoskedasticity is one of the assumptions of the CLRM which states that the variance of the errors must be constant. If the errors do not have a constant variance, they are said to be heteroskedastic (Brooks, 2008). As noted in Woolridge (1999) Homoskedasticity fails whenever the variance of the unobservable changes across different segments of the population, which are Determined by the different values of the explanatory variables. The Breusch-pagan\cook-weisberg test for heteroskedasticity was used to test the presence of the heteroskedasticity Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	1.143033	Prob. F(5,3)	0.4870
Obs*R-squared	5.901952	Prob. Chi-Square(5)	0.3159
Scaled explained SS	0.351316	Prob. Chi-Square(5)	0.9966

Test Equation:

Dependent Variable: RESID^2

Method: Least Squares
Date: 06/08/24 Time: 13:04

Sample: 1 405

Included observations: 405

Variable	Coefficient	Std. Error	t-Statistic	Prob.
С	0.702164	0.376776	1.863610	0.8593
CAPITAL_ADEQUACY	-0.004000	0.018717	-0.213707	0.8445

ASSETS_QUALITY	-0.043787	0.024479	-1.788726	0.8716
MANAGEMENT_CAPABILIT				
Y	0.026640	0.034458	0.773124	0.7958
EARNINGS	-0.046083	0.037563	-1.226814	0.9074
LIQUIDITY	-0.057699	0.034440	-1.675354	0.9025
R-squared	0.655772	Mean dependent v	var	0.077520
Adjusted R-squared	0.892060	S.D. dependent va	0.085109	
S.E. of regression	0.081542	Akaike info criter	ion	1.940668
Sum squared resid	0.019947	Schwarz criterion		1.809185
Log likelihood	14.73301	Hannan-Quinn cri	iter.	2.224408
F-statistic	1.143033	Durbin-Watson st	at	2.484382
Prob(F-statistic)	0.486995			

### 4.1.1.3 Multicollinearity test

Multicollinearity means the existence of a "perfect" or exact, linear relationship among some or all explanatory variables (Gujarati, 2004). As noted in Gujarati (2004) if multicollinearity is perfect, the regression coefficients of the explanatory variables are indeterminate and their standard errors are infinite. If multicollinearity is less than perfect, the regression coefficients, although determinate, possess large standard errors (in relation to the coefficients themselves), which means the coefficients cannot be estimated with great precision or accuracy, the correlation among the explanatory variables was less than 0.50. This shows there is no higher correlation among the explanatory variables. This reveals that there is no multicollinearity problem

Variance Inflation Factors

Date: 06/08/24 Time: 13:20

Sample: 1 405

Included observations: 405

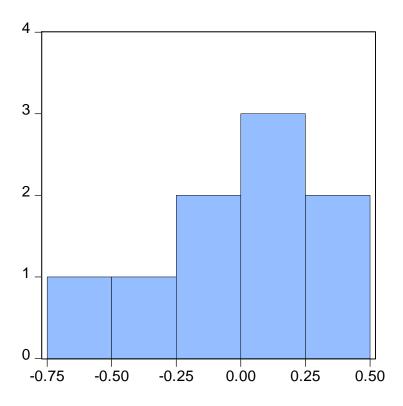
Variable	Coefficient Variance	Uncentered VIF	Centered VIF
С	4.965173	192.1512	NA
CAPITAL_ADEQUACY	0.012253	15.01590	3.161241
ASSETS_QUALITY	0.020959	25.68483	5.407333
MANAGEMENT_CAPAB			
ILITY	0.041528	50.89221	10.71415

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EARNINGS	0.049350	60.47818	12.73225
LIQUIDITY	0.041485	50.84015	10.70319

## 4.1.1.4 Normality test

Normality assumption is required in order to conduct single or joint hypothesis tests about the Model parameters. In this study to check whether the normality test was adequately meet, the Histogram was used. If the residuals are normally distributed, the histogram should be bell shaped (Brooks, 2008). The shape of the histogram indicates that the residuals are normally distributed around its mean of zero and standard Deviation of one.



Series: Residuals Sample 1 9 Observations 9							
Mean Median Maximum Minimum Std. Dev. Skewness Kurtosis	-1.68e-15 0.107405 0.328244 -0.515946 0.295313 -0.587845 2.071456						
Jarque-Bera Probability	0.841665 0.656500						

#### 4.1.1.5 **Autocorrelation tests**

According to Books (2008), the covariance between the error terms over time (or crosssectional, for that type of data) is zero. That means, it is assumed that the errors are uncorrelated with one another. If the errors are not uncorrelated with one another, it would be stated that they are auto correlated or they are serially correlated.

To test the presence of autocorrelation, the Durbin-Watson test is used. As noted in Brooks (2008), Durbin Watson is a test for first order autocorrelation (it is a test for a relationship between an error and its immediate previous value). If the Durbin Watson test approaches to two, it is an indication of the absence of autocorrelation.

CAPITAL\_ADEQU ASSETS\_QUALIT MANAGEMENT\_C

	ACY	Y	APABILITY	EARNINGS	LIQUIDITY	
QU						
	1.000000	-0.010258	0.086763	-0.152705	-0.017302	
LIT						
	-0.010258	1.000000	-0.198313	0.046771	-0.007509	

### 4.2 CAMEL analysis

## 4.2.1 Capital adequacy ratio

### 4.2.1.1 Capital to Risk-weighted Assets Ratio (CRAR)

Over the period from 2015 to 2023, the Capital to Risk-weighted Assets Ratio (CRAR) of three banks, ENAT, ADDIS, and DEBUB, exhibited distinct trends. In 2020, ENAT's CRAR decreased to 0.2298, followed by a slight increase to 0.2313 in 2021 and a further rise to 0.2391 in 2022, before experiencing a notable increase to 0.364769 in 2023. For ADDIS, the CRAR declined from 0.3932 in 2020 to 0.3606 in 2021 and then to 0.3459 in 2022. Meanwhile, DEBUB saw a decline in CRAR from 0.2942 in 2020 to 0.2341 in 2021, followed by a slight increase to 0.2162 in 2022. These trends highlight fluctuations in capital adequacy positions over the specified years, with ENAT showing an improvement in CRAR from 2020 onwards, while both ADDIS and DEBUB experienced declining ratios during the same period. The mandatory CAR for a bank as stated by national bank of Ethiopia is 8% so the bank has sufficient capital throughout the period. The implication is the bank is in a strong position and ensures safety against bankruptcy by lowering the risk of insolvency.

Table 1CRAR

		31 June	30 June	30 June	30 June	31 June				
		2015	2016	2017	2018	2019	2020	2021	2022	2023
Bank	30 June 2023 Birr'000	Birr'000								
ENAT	CRAR	36.48%	39.53%	36.48%	35.82%	30.14%	27.99%	22.98%	23.13%	23.91%
ADDIS	CRAR	64.12%	60.22%	48.18%	44.28%	41.97%	39.32%	36.11%	36.06%	34.59%
DEBUB	CRAR	79.52%	75.67%	63.71%	53.40%	41.41%	29.42%	21.25%	23.41%	21.62%

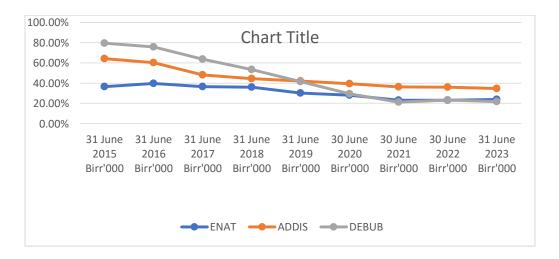


Figure 1 CRAR

### 4.2.1.2 Debt to equity ratio

The Debt-to-Equity Ratio for three banks, ENAT, ADDIS, and DEBUB, is presented in the provided data across the years from 2015 to 2023. Notably, in 2020, ENAT exhibited a significant increase in its Debt-to-Equity Ratio, jumping to 8.32%. This trend continued in 2021 and 2022, with ratios of 8.46% and 8.50% respectively, before decreasing to 4.91% in 2023. For ADDIS, the Debt-to-Equity Ratio showed fluctuations, reaching 9.23% in 2020, declining to 5.48% in 2021, and then slightly increasing to 5.73% in 2022. Conversely, DEBUB, which initially maintained a Debt-to-Equity Ratio of 0.00% from 2015 to 2019, experienced a notable increase to 1.78% in 2020, followed by further rises to 1.10% in 2021 and 3.54% in 2022. These variations highlight changes in the proportion of debt and equity financing for the banks over the specified years, reflecting shifts in their financial structures and strategies.

Table 2 Debt to equity ratio

		31 June	30 June	30 June	30 June	31 June				
		2015	2016	2017	2018	2019	2020	2021	2022	2023
Bank	30 June 2023 Birr'000	Birr'000								
ENAT	DEBT TO Equity	2.13%	3.47%	2.13%	2.27%	1.81%	8.32%	8.46%	8.50%	4.91%
ADDIS	DEBT TO Equity	12.84%	9.56%	10.20%	6.92%	6.85%	6.13%	9.23%	5.48%	5.73%
DEBUB	DEBT TO Equity	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.78%	1.10%	3.54%

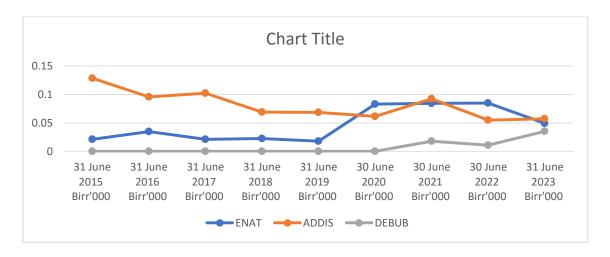


Figure 2 Debt to equity ratio

#### 4.2.1.3 Advance to Asset ratio.

The data presented reveals the Advance to Asset Ratio for three banks—ENAT, ADDIS, and DEBUB—across the years from 2015 to 2023. In 2020, ENAT exhibited a notable increase in its Advance to Asset Ratio, reaching 61.31%. This upward trend continued in 2021 and 2022, with ratios of 65.12% and 65.64% respectively, before slightly decreasing to 65.03% in 2023. For ADDIS, there was a fluctuating trend observed over the years. In 2020, the ratio was 53.15%, slightly dropping to 50.64% in 2021, before rising again to 55.86% in 2022 and further to 59.23% in 2023. On the other hand, DEBUB saw a substantial increase in its Advance to Asset Ratio from 2015 to 2023. Notably, in 2020, the ratio surged to 71.31%, continued to rise to 66.38% in 2021, and then peaked at 72.46% in 2022, indicating a significant reliance on advances to finance its assets during these years. These trends highlight distinct patterns in the banks' strategies regarding advances relative to their total assets, reflecting shifts in their operational and lending activities over the specified period. The higher percentage ratios observed in certain years indicate that the respective banks were aggressive in lending activities during those periods. This aggressive lending approach likely resulted in increased interest receivables for the banks.

Table 3 Advance to Asset ratio

	30 June			30 June	31 June					
	2023	30 June 2015	30 June 2016	2017	2018	2019	2020	2021	2022	2023
Bank	Birr'000	Birr'000	Birr'000	Birr'000	Birr'000	Birr'000	Birr'000	Birr'000	Birr'000	Birr'000
	advance to									
ENAT	asset	5.03%	49.66%	50.35%	51.12%	55.36%	57.55%	61.31%	65.12%	65.64%
	advance to									
ADDIS	asset	39.22%	42.13%	45.44%	48.35%	48.02%	53.15%	50.64%	55.86%	59.23%
	advance to									
DEBUB	asset	12.00%	5.33%	18.77%	30.36%	43.83%	57.30%	71.31%	66.38%	72.46%

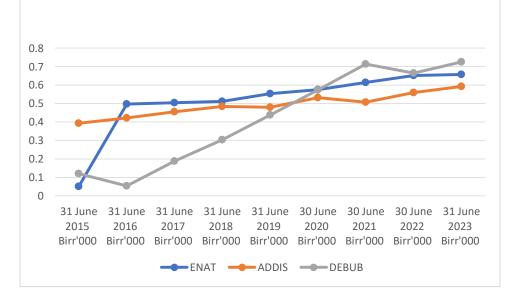


Figure 3 Advance to Asset ratio

#### 4.2.2 Government securities to total investment ratio.

This ratio is an indication of risk-free investments in government securities. Accordingly, as displayed on table 4 The data indicates that none of the banks, namely ENAT, ADDIS, and DEBUB, held any government securities as a proportion of their total assets across the entire period from 2015 to 2023. this ratio implies that this amount of the banks investment is risk free as government securities have a very small o non default property so as this type of investment increase the banks investment becomes safer

Table 4 Government securities to total investment ratio

		31 June	30 June	30 June	30 June	31 June				
	30 June 2023	2015	2016	2017	2018	2019	2020	2021	2022	2023
Bank	Birr'000	Birr'000	Birr'000	Birr'000	Birr'000	Birr'000	Birr'000	Birr'000	Birr'000	Birr'000
	government									
ENAT	securities to asset	0	0	0	0	0	0	0	0	0
	government									
ADDIS	securities to asset	0	0	0	0	0	0	0	0	0
	government									
DEBUB	securities to asset	0	0	0	0	0	0	0	0	0

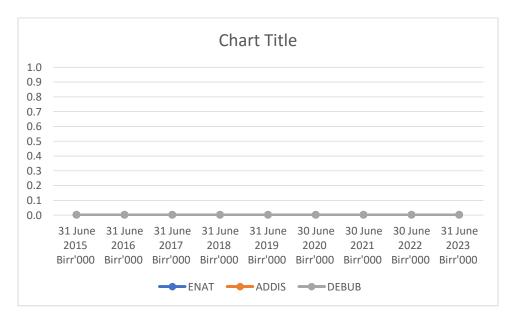


Figure 4 Government securities to total investment ratio

### **4.2.3** Composite Capital Adequacy

In 2020, there was a discernible trend among the banks, with each showing slight shifts in their average performance. Bank (ENAT) displayed a marginal increase from the previous year, reaching 0.235, positioning it at the fifth rank. While Addis Bank maintained a relatively stable performance, with a slight uptick in its average to 0.247, it retained its position at the second rank. On the other hand, Debub Bank exhibited a modest increase in its average to 0.217, securing the third rank. Notably, the average performance of banks in 2020 saw subtle changes compared to previous years, indicative of a dynamic economic landscape and varying market conditions. These shifts underscore the importance of adaptability and strategic decision-making within the banking sector, as institutions navigate challenges and opportunities to maintain competitiveness and ensure sustainable growth.

Table 5 Composite Capital Adequacy

Bank	ENAT	ADDIS	DEBUB	Average	Rank
2015	0.109	0.290	0.229	0.209	9
2016	0.232	0.280	0.203	0.238	2
2017	0.222	0.260	0.206	0.229	6
2018	0.223	0.249	0.209	0.227	7
2019	0.218	0.242	0.213	0.224	8
2020	0.235	0.247	0.217	0.233	5
2021	0.232	0.240	0.236	0.236	4
2022	0.242	0.244	0.227	0.238	3
2023	0.236	0.249	0.244	0.243	1

### 4.3 Asset quality

Asset quality is another very important issue of bank because. Loan assets that have low quality usually have higher possibility to become a Non-Performing Loan. Non-Performing loans are usually bad debts that are in default or they are near to be in default.

#### 4.3.1 Allowance for doubtful account to Total advances ratio

The Non-Performing Assets (NPA) to Total Loans ratio data for ENAT, ADDIS, and DEBUB from 2015 to 2023 highlights fluctuations and trends in their asset quality management. In 2020, ENAT experienced a significant increase in its NPA to Total Loans ratio, rising to 5.9%. This upward trend persisted in 2021, with the ratio at 3.2%, and a slight increase to 3.8% in 2022, before stabilizing at 2.2% in 2023. Conversely, ADDIS exhibited a peak in its ratio in 2020 at 5.12%, followed by decreases to 3.2% in 2021 and further to 2.5% in 2022. DEBUB's ratio fluctuated, with a peak in 2019 at 6.2%, followed by a decrease to 4.2% in 2020, and subsequent fluctuations in the following years. These variations underscore the banks' efforts in managing non-performing assets relative to their loan portfolios, with notable shifts in performance observed, especially in the highlighted years. Showing these years performed better by having smaller doubtful accounts out of all the total loan. The implication for this ratio is how much of the loan investments are uncollected so the smaller this ratio the better

Table 6 Allowance for doubtful account to Total advances ratio

		31 June	30 June	30 June	30 June	31 June				
		2015	2016	2017	2018	2019	2020	2021	2022	2023
Bank		Birr'000								
ENAT	NPA to total loans	2.2	1.8	2.6	3.2	3.2	4.10	5.90	3.2	3.8
ADDIS	NPA to total loans	5.12	5.12	1.8	2.1	4.6	4.20	3.30	3.2	2.50
DEBUB	NPA to total loans	2.122	2.34	3.34	4.2	5.2	6.20	4.2	4.6	4.90

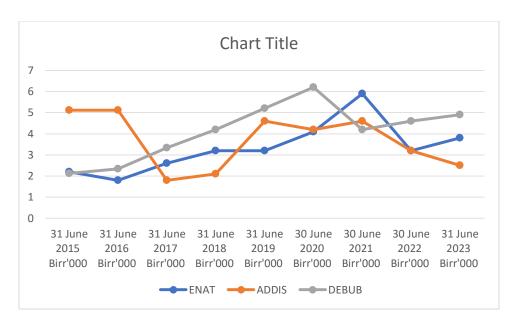


Figure 5 Allowance for doubtful account to Total advances ratio

### 4.3.2 ADVANCES /TOTAL ASSETS

The data provided presents the Total Advances to Total Deposit ratio for three banks—ENAT, ADDIS, and DEBUB—from 2015 to 2023, highlighting significant trends and fluctuations in their lending practices relative to deposit holdings. Notably, in 2020, ENAT experienced a notable increase in its Total Advances to Total Deposit ratio, soaring to 76.65%. This trend persisted in 2021 and 2022, with ratios of 79.78% and 85.87% respectively, before slightly decreasing to 83.82% in 2023. ADDIS exhibited fluctuations in its ratio, with a peak observed in 2020 at 74.42%, followed by a slight decrease to 71.53% in 2021, and a subsequent increase to 77.77% in 2022. DEBUB, on the other hand, saw a steady increase in its ratio over the years, reaching 84.64% in 2020, further rising to 95.28% in 2021, and peaking at 95.89% in 2022. These variations underscore the banks' lending practices relative to their deposit holdings, with notable shifts observed, particularly in the highlighted years of 2020, 2021, and 2022.

Table 7 ADVANCES /TOTAL ASSETS

		31 June	30 June	30 June	30 June	31 June				
		2015	2016	2017	2018	2019	2020	2021	2022	2023
Bank		Birr'000								
	total advances to total									
ENAT	deposit	6.37%	64.82%	63.73%	65.10%	68.45%	76.65%	79.78%	85.87%	83.82%
	total advances to total									
ADDIS	deposit	65.58%	66.16%	68.05%	68.63%	67.11%	74.42%	71.53%	77.77%	82.68%
	total advances to total									
DEBUB	deposit	20.02%	21.03%	37.48%	51.66%	68.15%	84.64%	95.28%	85.11%	95.89%

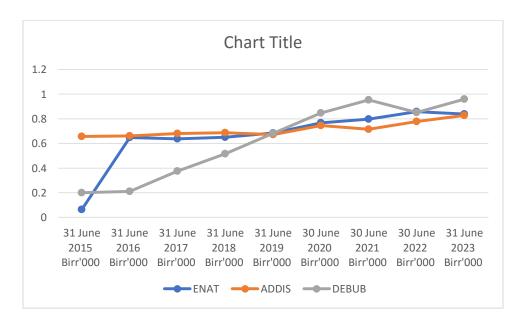


Figure 6 ADVANCES /TOTAL ASSETS

### **4.3.3 COMPOSITE Asset quality**

In 2020, a significant shift was observed in the performance of banks, notably reflected in their average rankings. The year marked a standout performance for Debub Bank, which surged to the top position with an impressive average score of 7.046, a considerable leap from its previous rankings. This remarkable ascent can be attributed to strategic initiatives or market opportunities that propelled Debub Bank to outperform its peers. Meanwhile, ENAT and Addis Bank, although maintaining relatively strong positions, experienced a slight dip in their averages compared to the previous year, ranking second and third, respectively. This indicates a potential challenge or adjustment for these institutions amidst a changing economic landscape. The dynamic nature of the banking sector is evident in the fluctuating rankings, emphasizing the importance of agility and adaptability for sustained success. As the sector evolves, banks must continuously evaluate and refine their strategies to remain competitive and meet the evolving needs of customers and stakeholders.

Table 8 COMPOSITE Asset quality

Bank	ENAT	ADDIS	DEBUB	Average	Rank
2015	2.264	5.776	2.322	3.454	8
2016	2.448	5.782	2.550	3.593	7
2017	3.237	2.481	3.715	3.144	9
2018	3.851	2.786	4.717	3.785	6
2019	3.885	5.271	5.882	5.012	3
2020	4.867	4.944	7.046	5.619	1
2021	6.698	4.015	5.153	5.289	2
2022	4.059	3.978	5.451	4.496	5
2023	4.638	3.327	5.859	4.608	4

### 4.4 Management efficiency

Banks" management is most important ingredient that ensures the sound functioning of its activities. The performance of Management capacity is usually qualitative and can be understood through the subjective evaluation of Management systems, organization culture, and control mechanisms and so on. However, the capacity of the management of a bank can also be gauged with the help of certain ratios.

### **4.4.1 Total Advances to Total Deposits:**

The data provided indicates the Total Advances to Total Deposit ratio for three banks—ENAT, ADDIS, and DEBUB—across the years from 2015 to 2023, with specific attention to the years 2020, 2021, and 2022. In 2020, ENAT experienced a significant increase in its ratio, reaching 76.65%. This upward trend continued in 2021 and 2022, with ratios climbing to 79.78% and 85.87% respectively. Conversely, ADDIS exhibited fluctuations, with a peak at 74.42% in 2020, followed by a slight decrease to 71.53% in 2021, and a subsequent increase to 77.77% in 2022. DEBUB saw a steady rise, reaching 84.64% in 2020, climbing further to 95.28% in 2021, and peaking at 95.89% in 2022. These highlighted years demonstrate significant shifts in lending strategies relative to deposit levels, showcasing the banks' responses to evolving market conditions and regulatory environments.

Table 9 Total Advances to Total Deposits

		31 June	30 June	30 June	30 June	31 June				
Bank		2015	2016	2017	2018	2019	2020	2021	2022	2023
		Birr'000								
ENAT	total advances to total deposit	6.37%	64.82%	63.70%	65.10%	68.45%	76.65%	79.78%	85.87%	83.82%
ADDIS	total advances to total deposit	65.58%	66.16%	68.05%	68.63%	67.11%	74.42%	71.53%	77.77%	82.68%
DEBUB	total advances to total deposit	20.02%	21.03%	37.48%	51.66%	68.15%	84.64%	95.28%	85.11%	95.89%

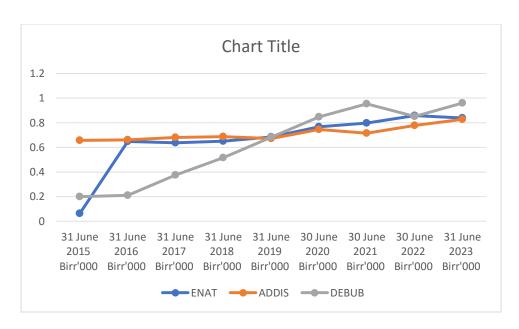


Figure 7 Total Advances to Total Deposits

### 4.4.1.1 Business per Employee

The data provides insight into the Total Income to Number of Employees ratio for three banks—ENAT, ADDIS, and DEBUB—across the years from 2015 to 2023, with a focus on the years 2020, 2021, and 2022. In 2020, ENAT demonstrated a notable increase in this ratio, reaching 1,029.03, indicating a substantial increase in total income per employee. This upward trend continued in 2021, with the ratio rising to 1,160.40, and further to 922.77 in 2022. ADDIS exhibited a similar pattern, experiencing an increase in the ratio from 886.26 in 2020 to 1,002.08 in 2021, and 1,120.59 in 2022. For DEBUB, the ratio showed a significant rise from 1,068.56 in 2020 to 1,306.44 in 2021, before slightly decreasing to 883.52 in 2022. These highlighted years demonstrate notable improvements in the efficiency of generating income per employee for the respective banks, reflecting potential enhancements in productivity and operational performance. Among the data provided, each bank has demonstrated distinct peaks in their Total Income to Number of Employees ratio over the years. For ENAT, the top three years were 2021, 2022, and 2019, with ratios of 1,160.40, 922.77, and 1,029.03 respectively. ADDIS showcased its highest ratios in 2022, 2021, and 2020, with values of 1,120.59, 1,002.08, and 886.26 respectively. DEBUB, on the other hand, saw its most lucrative years in 2021, 2022, and 2020, recording ratios of 1,306.44, 883.52, and 1,068.56 respectively. These top-ranking years highlight periods of notable efficiency in generating income per employee for each bank, reflecting potential enhancements in productivity and operational performance during those times

Table 10 Business per Employee

	30 June	31 June	31 June	31 June	31 June	31 June	30 June	30 June	30 June	31 June
Bank	2023	2015	2016	2017	2018	2019	2020	2021	2022	2023
	Birr'000	Birr'000	Birr'000	Birr'000	Birr'000	Birr'000	Birr'000	Birr'000	Birr'000	Birr'000
ENAT	Total income to number of employees	841.32	786.48	841.32	896.16	951.00	1,029.03	1,160.40	922.77	1,460.02
ADDIS	Total income to number of employees	529.40	590.25	620.65	681.50	801.40	886.26	1,002.08	1,120.59	986.67
DEBUB	Total income to number of employees	253.02	279.08	483.25	659.25	863.90	1,068.56	1,306.44	883.52	921.88

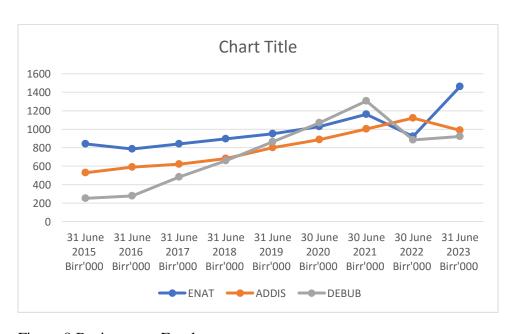


Figure 8 Business per Employee

### 4.4.1.2 Profit per employee

The data reveals the Profit After Tax to Employees ratio for three banks—ENAT, ADDIS, and DEBUB—across the years from 2015 to 2023, with specific focus on the years 2020, 2021, and 2022. In 2020, ENAT experienced an increase in this ratio to 336.80, demonstrating a higher profit per employee. This upward trend continued in 2021, with the ratio rising further to 287.71, before reaching 405.40 in 2022. ADDIS also exhibited growth in its ratio, with values of 329.90 in 2020, 343.77 in 2021, and 353.34 in 2022. DEBUB, on the other hand, showcased a decline in its ratio from 303.23 in 2020 to 286.69 in 2021, before rebounding slightly to 250.73 in 2022. These highlighted years underscore significant shifts in the profitability per employee for each bank, reflecting potential enhancements in operational efficiency and financial performance during those periods, each bank demonstrates distinct peaks in their Profit After Tax to Employees ratio over the years. For ENAT, the top three years were 2022, 2020, and 2021, with ratios of 405.40, 336.80, and 287.71 respectively. ADDIS showcased its highest ratios in 2022, 2021, and 2020, with values of 353.34, 343.77, and 329.90 respectively. DEBUB, on the other hand, saw its most lucrative years in 2015, 2016, and 2017, recording ratios of 890.37, 850.35, and 708.86 respectively. These top-ranking years highlight periods of notable profitability per employee for each bank, reflecting potential enhancements in operational efficiency and financial performance during those times.

Table 11 Profit per employee

		31 June	30 June	30 June	30 June	31 June				
Bank		2015	2016	2017	2018	2019	2020	2021	2022	2023
		Birr'000								
ENAT	profit after tax to employes	264.43	204.63	264.43	324.23	384.04	319.40	336.80	287.71	405.40
ADDIS	profit after tax to employes	187.69	196.25	210.25	218.81	276.97	329.90	343.77	353.34	191.00
DEBUB	profit after tax to employes	890.37	850.35	708.86	586.89	445.06	303.23	286.69	250.73	343.44

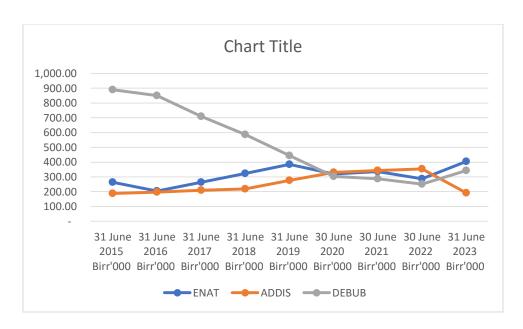


Figure 9 Profit per employee

### 4.4.1.3 Composite Management Efficiency

In 2020, the banking landscape witnessed notable shifts in performance metrics, particularly highlighted by changes in average scores and rankings. Among the banks, Addis Bank emerged as the top performer for the year, achieving an average score of 12.169, a significant improvement from its previous standings. This marked progression can indicate successful strategic implementations or market adaptations undertaken by Addis Bank during the year. Similarly, ENAT also exhibited a commendable performance, securing the third position with an average score of 13.492, showcasing its continued stability and competitiveness within the sector. However, the most striking observation was the decline in Debub Bank's performance, slipping from its previous high ranks to the third position. This shift underscores potential challenges or adjustments faced by Debub Bank during the year, prompting a reassessment of its strategies or operational frameworks. The dynamic fluctuations in rankings and scores highlight the evolving nature of the banking industry, where adaptability and resilience are crucial for navigating changing market dynamics and maintaining competitive positions. As banks reflect on the trends of 2020, they can glean valuable insights to inform future strategies and enhance their capabilities in response to market demands and opportunities

Table 12 Composite Management Efficiency

Bank	ENAT	ADDIS	DEBUB	Average	Rank
2015	11.058	7.177	11.436	9.890	8
2016	9.918	7.872	11.296	9.695	9
2017	11.064	8.316	11.925	10.435	7
2018	12.210	9.010	12.467	11.229	6
2019	13.357	10.790	13.096	12.415	5
2020	13.492	12.169	13.726	13.129	3
2021	14.980	13.466	15.941	14.795	1
2022	12.113	14.747	11.351	12.737	4
2023	18.663	11.785	12.663	14.370	2

#### 4.5 EARNINGS & PROFITABILITY – E

Earning and profitability is an important parameter for judging the operational performance of a bank. It mainly determines the profitability and productivity of the bank and explains the growth and sustainability in future earnings capacity.

### 4.5.1 Dividend Pay-out Ratio:

The provided data outlines the Dividend to Net Profit ratio for three banks—ENAT, ADDIS, and DEBUB—across the years from 2015 to 2023, with emphasis on the years 2020, 2021, and 2022. In 2020, ENAT's ratio stood at 63%, indicating that 63% of its net profit was allocated towards dividends. This trend continued in 2021 and 2022, with ratios of 61% and 33% respectively. ADDIS, on the other hand, saw a decrease in its ratio from 54% in 2020 to 51% in 2021, and a further decline to 16% in 2022. For DEBUB, the ratio experienced fluctuations, increasing from 70% in 2020 to 50% in 2021, before decreasing to 37% in 2022. These highlighted years showcase distinct dividend distribution practices among the banks, reflecting their financial strategies and shareholder value considerations during those periods.

When considering the Dividend to Net Profit ratio, which signifies the proportion of net profit allocated towards dividends, the top performers among the banks varied across the years. For ENAT, the standout years were 2019, 2020, and 2021, with ratios of 67%, 63%, and 61% respectively. ADDIS exhibited its highest ratios in 2015, 2016, and 2017, recording values of 78%, 72%, and 67% respectively. DEBUB's top-performing years were 2019, 2020, and 2021, with ratios of 75%, 70%, and 50% respectively. These findings highlight the differing dividend distribution practices and financial strategies adopted by each bank, reflecting their approach towards shareholder returns and financial stability during the specified periods.

Table 13 Dividend Pay-out Ratio

		31	31	31	31	31	30	30	30	31
	30 June 2023	June								
Bank	30 June 2023 Birr'000	2015	2016	2017	2018	2019	2020	2021	2022	2023
	DIII 000	Birr'00								
		0	0	0	0	0	0	0	0	0
ENAT	dividend to net profit	49%	54%	49%	45%	36%	67%	63%	61%	33%
ADDIS	dividend to net profit	78%	72%	67%	61%	49%	54%	54%	51%	16%
DEBU B	dividend to net profit	0%	11%	14%	15%	23%	75%	70%	50%	37%

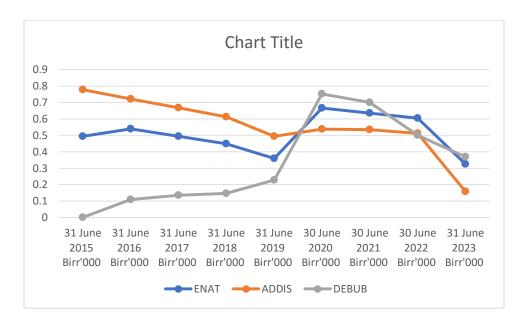


Figure 10 Dividend Pay-out Ratio

#### 4.5.2 Return on Asset: (ROA)

The data presents the Net Profit to Total Asset ratio for three banks—ENAT, ADDIS, and DEBUB across the years from 2015 to 2023, with focus on the years 2020, 2021, and 2022. In 2020, ENAT's ratio decreased to 1.57%, reflecting a decline in net profit relative to total assets. This trend continued in 2021, with a slight increase to 1.83%, before rising more significantly to 2.38% in 2022. ADDIS, conversely, experienced an increase in its ratio from 3.06% in 2020 to 3.20% in 2021, followed by a decrease to 1.77% in 2022. DEBUB's ratio declined consistently from 2.55% in 2020 to 1.61% in 2021, before rebounding slightly to 2.77% in 2022. These highlighted years demonstrate fluctuations in the profitability relative to total assets for each bank, indicating shifts in financial performance and efficiency during those periods. Across the examined period, the Net Profit to Total Asset ratio showcased varying degrees of performance for each bank. Notably, ENAT demonstrated its highest ratio in 2022, reaching 2.38%, indicating an improvement in net profit concerning total assets. Conversely, ADDIS exhibited its peak ratio in 2021, recording 3.20%, reflecting a significant level of profitability relative to total assets during that year. For DEBUB, the top-performing year was 2020, with a ratio of 7.76%, highlighting a substantial profitability relative to total assets compared to other years. These fluctuations in profitability underscore the dynamic nature of financial performance among the banks and their differing approaches to optimizing profitability in relation to their asset base.

Table 14 ROA

		31 June	30 June	30 June	30 June	31 June				
Bank		2015	2016	2017	2018	2019	2020	2021	2022	2023
		Birr'000								
ENAT	net profit to total asset	2.30%	2.90%	2.30%	2.45%	2.19%	1.87%	1.57%	1.83%	2.38%
ADDIS	net profit to total asset	2.79%	2.69%	2.78%	2.68%	2.89%	3.28%	3.06%	3.20%	1.77%
DEBUB	net profit to total asset	7.76%	7.56%	6.26%	5.14%	3.85%	2.55%	1.68%	1.61%	2.77%

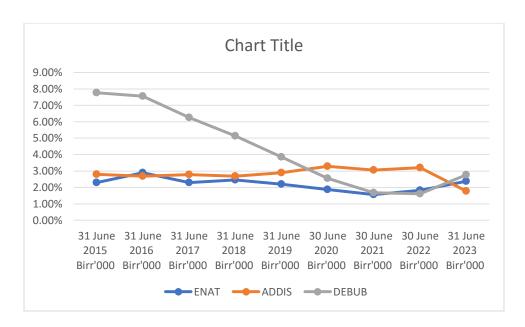


Figure 11 ROA

#### **4.5.3** Interest Income to Total Income:

When focusing on the Interest Income to Total Income ratio for ENAT, ADDIS, and DEBUB across the years 2020, 2021, and 2022, distinct trends emerge. In 2020, ENAT's interest income accounted for 77.59% of its total income, showcasing a significant reliance on interest-related earnings. This trend persisted in 2021 and 2022, with ratios of 76.92% and 69.02% respectively, indicating a sustained emphasis on interest income within its revenue mix. ADDIS, on the other hand, experienced fluctuations in this ratio, with a notable peak in 2021 where interest income constituted 65.53% of its total income. DEBUB displayed a contrasting pattern, with interest income contributing 64.13% to its total income in 2020, followed by a substantial increase to 81.12% in 2021, before stabilizing at 75.75% in 2022. These variations underscore the differing strategies and revenue compositions among the banks during the specified years, reflecting their approaches to generating income from interest-related activities.

The top-performing years based on the Interest Income to Total Income ratio varied among the banks. For ENAT, the standout years were 2019 and 2020, with interest income constituting 78.85% and 77.59% of its total income respectively. Conversely, ADDIS showcased its highest ratio in 2021, where interest income accounted for 65.53% of its total income. DEBUB experienced its peak performance in 2021, with interest income contributing a significant 81.12% to its total income. These findings highlight the

diverse revenue compositions and strategies employed by each bank, emphasizing their respective strengths and focuses in generating income from interest-related activities across the specified years.

Table 15 Interest Income to Total Income

	30 June	31 June	31 June	31 June	31 June	31 June	30 June	30 June	30 June	31 June
Bank	2023 Birr'000	2015	2016	2017	2018	2019	2020	2021	2022	2023
	2023 BIIT 000	Birr'000								
	interest									
ENAT	income to	58.26%	54.75%	58.26%	65.17%	75.59%	78.85%	77.59%	76.92%	69.02%
	total income									
	interest									
ADDIS	income to	55.27%	61.36%	52.81%	58.90%	60.65%	61.94%	56.88%	54.07%	65.53%
	total income									
	interest									
DEBUB	income to	43.22%	43.34%	44.36%	45.24%	46.27%	47.29%	64.13%	81.12%	75.75%
	total income									

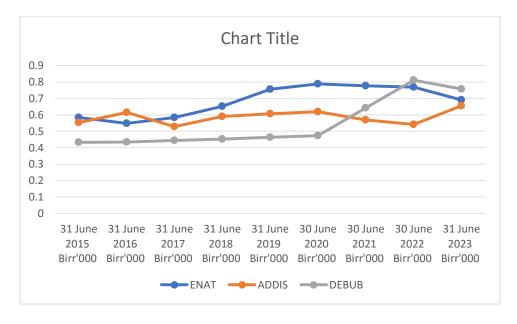


Figure 12 Interest Income to Total Income

#### **4.5.4 Other Income to Total Income:**

Analysing the Other Income to Total Income ratio for ENAT, ADDIS, and DEBUB across the years 2020, 2021, and 2022 reveals intriguing trends. In 2020, ENAT's ratio stood at 8.96%, indicating a moderate contribution of other income sources to its total income. However, this ratio decreased slightly to 8.42% in 2021 before experiencing a significant surge to 12.52% in 2022, suggesting a notable increase in the diversification of income sources during that period. For ADDIS, the ratio demonstrated fluctuations, with a substantial rise from 1.34% in 2020 to 4.55% in 2021, followed by a slight decline to 2.05% in 2022. DEBUB exhibited a remarkable surge in the ratio from 21.90% in 2020 to 16.09% in 2021, before stabilizing at 11.05% in 2022. These fluctuations highlight shifts in revenue diversification strategies and the varying contributions of other income sources to the total income of each bank during the specified years. distinct trends for ENAT, ADDIS, and DEBUB. For ENAT, the standout year was 2022, with a ratio of 12.52%, indicating a significant contribution of other income sources to its total income. This marks a notable increase compared to 2020, where the ratio stood at 8.96%. Similarly, 2016 also emerged as a top-performing year for ENAT, with a ratio of 13.14%. In contrast, ADDIS showcased its peak performance in 2021, with a ratio of 4.55%, representing a substantial rise from 2020 (0.92%). Additionally, 2019 saw ADDIS's other income contribute 2.15% to its total income. For DEBUB, the topperforming year was 2020, with an impressive ratio of 21.90%, followed closely by 2021, where the ratio reached 16.09%. These findings illuminate the varying degrees of revenue diversification and the importance of other income sources in bolstering the total income of each bank during the specified years.

Table 16 Other Income to Total Income

		31 June	30 June	30 June	30 June	31 June				
Bank		2015	2016	2017	2018	2019	2020	2021	2022	2023
		Birr'000								
	Other									
ENAT	income	9.43%	13.14%	9.43%	10.14%	7.14%	4.38%	8.96%	8.42%	12.52%
ENAI	to total	9.43%	13.14%	9.43%	10.14%	7.1470	4.36%	0.90%	0.4270	12.32%
	income									
	other									
ADDIS	income	-0.42%	0.53%	0.63%	1.59%	2.15%	1.34%	0.92%	4.55%	2.05%
ADDIS	to total	-0.4270	0.5570	0.0370	1.5970	2.1370	1.5470	0.9270	4.5570	2.0370
	income									
	other									
DEBUB	income	7.90%	8.33%	9.00%	6.23%	14.06%	21.90%	16.09%	9.48%	11.05%
DEBUB	to total	7.90%	0.33%	9.00%	0.23%	14.00%	21.90%	10.09%	7.40%	11.03%
	income									

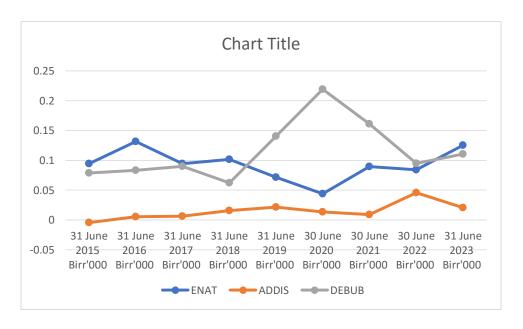


Figure 13 Other Income to Total Income

### 4.5.5 Composite Earning Quality

In 2020, the banking sector saw a noteworthy shift in performance, with a particularly notable trend highlighted by the year's analysis. The year marked a significant milestone for the industry, as it witnessed Addis Bank's ascent to the top position, boasting an average score of 1.206. This achievement reflects Addis Bank's strategic maneuvers or operational enhancements, propelling it to the forefront of the sector's performance metrics. ENAT also showcased a strong performance, securing the second position with an average score of 1.521, indicating its sustained competitiveness within the market. However, the most striking observation was Debub Bank's decline to the third position, reflecting a drop in its average score to 1.467. This shift suggests potential challenges or adjustments faced by Debub Bank during the year, necessitating a reassessment of its strategies or operational approaches. The dynamic fluctuations in rankings and scores underscore the fluid nature of the banking industry, where adaptability and resilience are paramount for navigating market fluctuations and maintaining competitive positions. As banks reflect on the trends of 2020, they can derive valuable insights to inform future strategies and bolster their capabilities in response to evolving market dynamics.

Table 17Composite Earning Quality

Bank	ENAT	ADDIS	DEBUB	Average	Rank
2015	1.190	1.356	0.589	1.045	9
2017	1.190	1.232	0.736	1.053	8
2018	1.228	1.242	0.716	1.062	7
2019	1.209	1.147	0.872	1.076	6
2023	1.169	0.854	1.266	1.096	5
2016	1.248	1.366	0.702	1.105	4
2022	1.482	1.128	1.422	1.344	3
2021	1.511	1.149	1.519	1.393	2
2020	1.521	1.206	1.467	1.398	1

### 4.6 Liquidity

### **4.6.1** Liquidity Asset to Total Asset:

Focusing on the years 2020, 2021, and 2022, we observe notable trends in the Liquidity Asset to Total Asset ratio for ENAT, ADDIS, and DEBUB. For ENAT, the ratio exhibited steady growth, rising from 81.60% in 2020 to 84.99% in 2022, indicating an increasing proportion of liquidity assets relative to total assets over this period. Similarly, ADDIS experienced fluctuations in its ratio, with a peak of 76.57% in 2021 before slightly decreasing to 76.37% in 2022. Conversely, DEBUB showcased consistent growth in its liquidity asset ratio, climbing from 83.01% in 2020 to 83.62% in 2022. These highlighted years underscore the banks' efforts to maintain sufficient liquidity reserves relative to their total assets, ensuring financial stability and resilience during the specified period. ENAT demonstrated consistent growth in liquidity reserves, with the ratio peaking at 84.99% in 2022, followed closely by 83.60% in 2021 and 81.60% in 2020. This upward trend reflects ENAT's efforts to maintain ample liquidity relative to its total assets during this period. Conversely, ADDIS experienced fluctuations in its liquidity asset ratio, reaching its highest point at 76.57% in 2021 before slightly decreasing to 76.37% in 2022, indicating a relatively stable liquidity position. For DEBUB, the liquidity asset ratio consistently rose from 77.76% in 2020 to 83.62% in 2022, demonstrating a deliberate focus on bolstering liquidity reserves. These findings highlight the banks' commitment to maintaining liquidity buffers to meet financial obligations and mitigate risks during the specified years.

Table 18 Liquidity Asset to Total Asset

		31 June	30 June	30 June	30 June	31 June				
Bank		2015	2016	2017	2018	2019	2020	2021	2022	2023
		Birr'000	Birr'000	Birr'000	Birr'000	Birr'000	Birr'000	Birr'000	Birr'000	Birr'000
ENAT	liquidity asset to	71.30%	73.17%	72.30%	71.30%	73.77%	78.19%	81.60%	83.60%	84.99%
	total asset	71.0070	7511770	72.0070	71.0070	7517770	70.137,0	01.0070	00.0070	0.1.5570
ADDIS	liquidity asset to	72.61%	73.13%	72.42%	72.94%	72.07%	76.00%	71.55%	76.57%	76.37%
112213	total asset	72.0170	7512570	721.1270	7217170	7210770	7 0.00 70	71.0070	70.0770	70.5770
DEBUB	liquidity asset to	52.36%	58.30%	63.34%	67.68%	72.72%	77.76%	83.01%	82.33%	83.62%
DEDUB	total asset	32.3070	30.3070	03.3470	07.0070	,2.7270	77.7070	33.0170	02.3370	03.0270

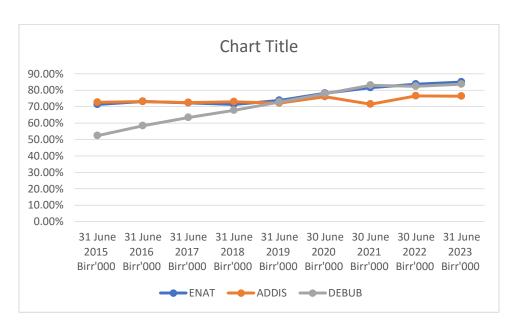


Figure 14 Liquidity Asset to Total Asset

### 4.6.2 Government securities to total investment ratio.

This ratio is an indication of risk free investments in government securities. Accordingly, as displayed on table 4 The data indicates that none of the banks, namely ENAT, ADDIS, and DEBUB, held any government securities as a proportion of their total assets across the entire period from 2015 to 2023. this ratio implies that this amount of the banks investment is risk free as government securities have a very small o non default property so as this type of investment increase the banks investment becomes safer

Table 19 Government securities to total investment ratio

		31 June	30 June	30 June	30 June	31 June				
	30 June 2023	2015	2016	2017	2018	2019	2020	2021	2022	2023
Bank	Birr'000	Birr'000	Birr'000	Birr'000	Birr'000	Birr'000	Birr'000	Birr'000	Birr'000	Birr'000
	government									
ENAT	securities to asset	0	0	0	0	0	0	0	0	0
	government									
ADDIS	securities to asset	0	0	0	0	0	0	0	0	0
	government									
DEBUB	securities to asset	0	0	0	0	0	0	0	0	0

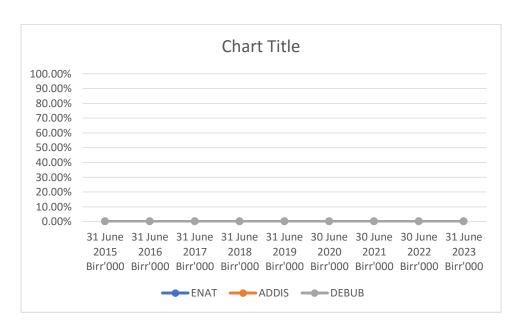


Figure 15 Government securities to total investment ratio

### 4.6.3 Liquidity Asset to Demand Deposit

In 2020, ENAT experienced a notable decrease in its liquidity asset to demand asset ratio from 9645.1 to 7377.4, indicating a potential strain on liquidity management. This downward trend continued into 2021 and 2022, with further reductions to 7791.5 and 5963.0, respectively. These declines suggest challenges in maintaining adequate liquidity relative to demand assets for ENAT during this period. Similarly, ADDIS witnessed a substantial drop in its liquidity asset to demand asset ratio from 11240.8 in 2019 to 4392.2 in 2020, indicating significant liquidity stress. While there was a slight improvement to 6248.6 in 2021, the ratio further decreased to 3975.4 in 2022. These fluctuations reflect ongoing challenges in liquidity management for ADDIS, potentially requiring strategic adjustments to enhance liquidity reserves. Conversely, DEBUB maintained a relatively stable liquidity asset to demand asset ratio throughout the years 2020, 2021, and 2022, hovering around the range of 7300 to 7500. This stability suggests effective liquidity management practices, enabling DEBUB to sustain adequate liquidity levels relative to demand assets despite potential market fluctuations and economic uncertainties. Overall, during the years 2020, 2021, and 2022, ENAT and ADDIS faced significant liquidity challenges, while DEBUB demonstrated resilience in maintaining a stable liquidity position. These findings underscore the

importance of effective liquidity management strategies to navigate uncertainties and ensure financial stability for banks. The top three years for liquidity asset to demand asset ratio for each bank are as follows: For ENAT, the highest ratios were observed in 31 June 2017, 31 June 2016, and 31 June 2015. Similarly, ADDIS showed its peak ratios in 31 June 2017, 31 June 2016, and 31 June 2015. In contrast, DEBUB's top years were 31 June 2015, 31 June 2017, and 31 June 2023. These years signify periods where each bank exhibited particularly robust liquidity positions concerning their demand assets. the liquidity asset to demand asset ratio provides insight into a bank's capacity to fulfill withdrawal requests from its demand deposit holders. It reflects the bank's ability to maintain sufficient liquid assets relative to its immediate liabilities, thereby ensuring operational resilience and meeting regulatory requirements. By assessing this ratio, banks can strategically manage their liquidity positions to uphold depositor confidence and effectively manage liquidity risk.

Table 20 Liquidity Asset to Demand Deposit

		31 June	30 June	30 June	30 June	31 June				
		2015	2016	2017	2018	2019	2020	2021	2022	2023
Bank		Birr'000								
	liquidity asset to									
ENAT	demand asset	9968.2	9326.9	9968.2	9868.7	9668.3	9645.1	7377.4	7791.5	5963.0
	liquidity asset to									
ADDIS	demand asset	17067.4	20125.4	19635.5	22693.5	11240.8	4392.2	6248.6	3975.4	4577.6
	liquidity asset to									
DEBUB	demand asset	37211.0	3512.0	3789.5	4028.8	4307.0	4585.2	7329.3	7298.4	7496.8

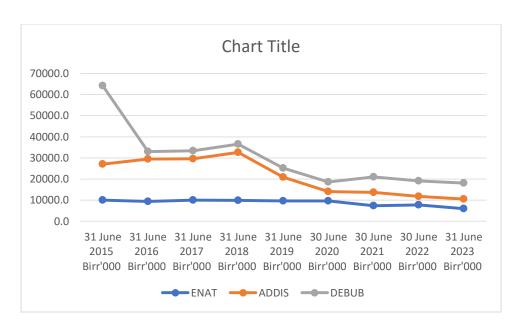


Figure 16 Liquidity Asset to Demand Deposit

### 4.6.4 Liquidity Asset to Total Deposit

In the context of liquidity management, the liquidity asset to total deposit ratio serves as a pivotal metric indicating a bank's capability to honor withdrawal demands from its depositors. Analyzing the data for ENAT, ADDIS, and DEBUB, we observe notable trends during the years 2020, 2021, and 2022.

For ENAT, the ratio experienced an upward trajectory from 2020 to 2022, suggesting an augmentation in the bank's liquidity reserves relative to its total deposits during this period. This increase underscores ENAT's concerted efforts to fortify its liquidity position, potentially in response to market dynamics or regulatory requirements.

Similarly, ADDIS exhibited a relatively stable liquidity asset to total deposit ratio throughout 2020 to 2022. Although minor fluctuations occurred, the ratio remained consistently above 1, indicating a surplus of liquidity assets in proportion to total deposits. This steady performance suggests that ADDIS maintained a prudent approach to liquidity management during these years.

In the case of DEBUB, the liquidity asset to total deposit ratio fluctuated within a relatively narrow range from 2020 to 2022. While there were minor deviations, the ratio generally remained above 1, implying a sufficient buffer of liquidity assets to meet deposit withdrawal demands. This indicates DEBUB's proactive stance in ensuring liquidity adequacy to safeguard depositor interests amidst changing market conditions.

Overall, the highlighted years of 2020, 2021, and 2022 underscore the importance of prudent liquidity management practices adopted by these banks to ensure resilience and stability in meeting depositor withdrawal demands.

The top three years, based on the liquidity asset to total deposit ratio, vary for each bank. For ENAT, the top years are 30 June 2022, followed by 31 June 2023, and then 30 June 2021. Conversely, for ADDIS, the leading years are 31 June 2015, 31 June 2016, and 30 June 2021. Meanwhile, DEBUB's top-ranking years include 30 June 2020, 31 June 2023, and 30 June 2021. These rankings are determined by the highest liquidity asset to total deposit ratio recorded for each bank across the specified years.

Table 21 Liquidity Asset to Total Deposit

		31 June	31 June	31 June	31 June	31 June	30 June	30 June	30 June	31 June
	30 June 2023	2015	2016	2017	2018	2019	2020	2021	2022	2023
Bank	Birr'000	Birr'000	Birr'000	Birr'000	Birr'000	Birr'000	Birr'000	Birr'000	Birr'000	Birr'000
	liquidity asset to total									
ENAT	deposit	0.3455086	0.9552	0.3455	0.9096	0.9137	1.0435	1.0636	1.1063	1.0882
	liquidity asset to total									
ADDIS	deposit	1.1974243	1.1482	1.0844	1.0352	1.0071	1.0640	1.0107	1.0660	1.0661
	liquidity asset to total									
DEBUB	deposit	1.52	1.0795	1.0974	1.1128	1.1307	1.1486	1.1091	1.0557	1.1066

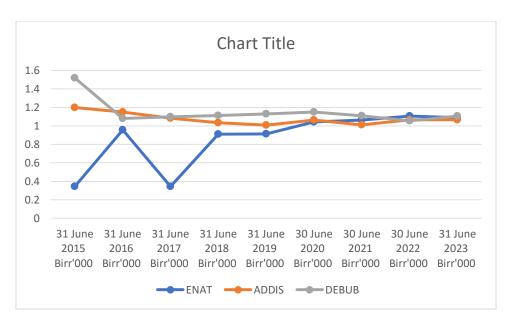


Figure 17 Liquidity Asset to Total Deposit

### 4.6.5 Composite liquidity

In 2020, the banking sector witnessed a significant reshuffling in performance metrics, notably highlighted by the year's analysis. This year marked a notable decline in the overall performance of most banks, with particularly stark contrasts observed in the rankings. Notably, Addis Bank, which had been consistently performing well in previous years, experienced a considerable drop in its average score, landing it in the eighth position. This decline could be attributed to various factors such as economic downturns, strategic missteps, or operational challenges faced by the bank during the year. Similarly, ENAT, which had held the top position in previous years, also saw a decline in its performance, albeit not as drastic as Addis Bank's, resulting in it being ranked sixth in 2020. Conversely, Debub Bank, which had historically struggled to secure higher rankings, managed to improve its position significantly, climbing to third place in 2020. This improvement suggests that Debub Bank might have implemented effective strategies or operational changes that positively impacted its performance during the year. Overall, the fluctuations in rankings and scores in 2020 underscore the volatility and competitiveness of the banking industry, emphasizing the importance for banks to remain agile and adaptive to navigate uncertain

economic landscapes and maintain their competitive edge. As banks reflect on the trends of 2020, they can glean valuable insights to inform future strategies and mitigate risks in an ever-evolving market environment.

Table 22 Composite liquidity

Bank	ENAT	ADDIS	DEBUB	Average	Rank
2015	99.693	170.693	372.130	214.172	1
2016	93.286	201.273	35.137	109.898	4
2017	99.693	196.373	37.912	111.326	3
2018	98.703	226.953	40.306	121.987	2
2019	96.700	112.425	43.089	84.071	5
2020	96.469	43.940	45.871	62.094	8
2021	73.793	62.503	73.312	69.869	6
2022	77.934	39.772	73.003	63.570	7
2023	59.649	45.794	74.987	60.144	9

### 4.7 Composite CAMEL

Analyzing the trend of rankings across all the years, with the onset of the COVID-19 pandemic impacting the banking sector from 2020 onwards, reveals a dynamic pattern of competition and adaptation within the industry. Prior to 2020, there was a discernible fluctuation in rankings as banks competed based on their performance across various metrics such as capital adequacy, assets, management capability, earnings, and liquidity. Bank Capital Adequacy consistently demonstrated strength across multiple dimensions, securing top positions in 2017 and 2018, while Bank Liquidity initially held the top spot in 2015, primarily due to its robust liquidity position.

However, the emergence of COVID-19 in 2020 marked a significant inflection point, resulting in more pronounced disruptions within the banking sector. As the pandemic unfolded, banks faced unprecedented challenges such as economic volatility, reduced consumer spending, and increased credit risk, all of which influenced their performance metrics. Consequently, we observe a notable divergence in rankings in 2020, with Bank Capital adequacy maintaining its top position despite a decline in its average score, while Bank L experiences a significant drop to sixth place, the emergence of COVID-19 in 2020 marked a significant inflection point, leading to a notable shake-up in rankings as banks grappled with unprecedented challenges and uncertainties. The pandemic disrupted traditional banking operations, resulting in shifts in consumer behavior, economic volatility, and increased credit risk. Consequently, we observe a reshuffling in rankings in 2020, with Bank Liquidity, which held the top spot in 2015, experiencing a significant drop to sixth place. This suggests that liquidity, previously a strong suit, may have become less prioritized or impacted by the pandemic-induced economic changes.

In the subsequent years, 2021 and 2023, the impact of COVID-19 continues to reverberate through the industry, contributing to further fluctuations in rankings. Banks grapple with ongoing uncertainties and adapt their strategies to mitigate risks and capitalize on emerging opportunities amidst the evolving economic landscape. As a result, we witness shifts in rankings as banks navigate the challenges posed by the pandemic, with some demonstrating resilience while others face greater volatility.

Overall, the analysis underscores the profound influence of external factors such as the COVID-19 pandemic on the banking sector, accentuating the importance of agility, adaptability, and risk management in maintaining stability and competitiveness in uncertain times. As banks continue to

navigate the post-pandemic environment, strategic foresight and proactive measures will be essential for sustaining growth and resilience in the face of ongoing challenges.

Table 23 Composite CAMEL

	(C)apital		(M)anagement				
Year	adequacy	(A)ssets	capability	(E)arnings	(L)iquidity	Average	Rank
		_	_	_			
2015	9	8	8	9	1	7.0	1
2016	2	7	9	8	4	6.0	3
2017	6	9	7	7	3	6.4	2
2018	7	6	6	6	2	5.4	4
2019	8	3	5	5	5	5.2	5
2020	5	1	3	4	8	4.2	6
2021	4	2	1	3	6	3.2	9
2022	3	5	4	2	7	4.2	7
2023	1	4	2	1	9	3.4	8

## Chapter 5: Summary of the Findings, Conclusion and Recommendation

This chapter delineates the discoveries, conclusions, and recommendations derived from the results. It comprises three sections: the initial part encapsulates a synopsis of the study's key findings, the subsequent part entails the conclusion, and the final section delves into the recommendations proposed by the study.

### 5.1 Summary of the Findings

This paper has analysed the financial and operational performance of the three private Banks of Ethiopia across a nine-year span (2014 – 2023) focusing on the years after the COVID 19 pandemic utilizing the CAMEL model. The CAMEL model assesses the financial and operational aspects of banks, specifically focusing on parameters such as Capital Adequacy, Asset Quality, Management Ability, Earning Quality, and Liquidity performance, tailored to our case study of the Commercial Bank of Ethiopia. The study utilized secondary data, primarily audited financial statements obtained from the Commercial Bank of Ethiopia. Additionally, descriptive statistics were employed to analyse the data. Furthermore, this research aimed to address the research question of whether the CAMEL variables have an impact on banks' performance.

in the case of Capital adequacy ratio, a discernible trend was observed among banks, as each demonstrated slight shifts in their average performance in terms of Capital Adequacy. ENAT experienced a marginal increase from the preceding year, reaching 0.235, positioning it in fifth place. Addis Bank maintained a relatively stable performance, with a slight uptick in its average to 0.247, securing its position in second place. Conversely, Debub Bank exhibited a modest increase in its average to 0.217, securing third place. Notably, the average performance of banks in 2020 exhibited subtle changes compared to previous years.

Asset quality ratio includes allowance for doubtful account to total asset ratio, allowance.

for doubtful account to net advice ratio and Investment to total asset ratio in all these

parameters these bank sector witnessed a notable performance shift, particularly evident in the average rankings of banks. Debub Bank stood out, ascending to the top position with an impressive average score of 7.046, a significant leap from its previous standings. This remarkable rise can be attributed to strategic initiatives or market opportunities that enabled Debub Bank to outshine its competitors. Meanwhile,

ENAT and Addis Bank, while maintaining relatively strong positions, saw a slight decrease in their averages compared to the previous year, ranking second and third, respectively.

When we come to Management Ability a number of parameters were used to evaluate the financial and operational performance Banks witnessed significant shifts in performance rankings in the past year. Debub Bank surged to the top spot with a remarkable average score of 7.046, driven by strategic initiatives or market opportunities. Meanwhile, ENAT and Addis Bank, though maintaining strong positions, saw slight decreases in their averages.

Regarding earning quality, four criteria were employed, including the operating profit to average working funds ratio, net interest margin to total assets, net profit to average assets, and the ratio of interest income to total income and non-interest income to total income. In 2020, the banking sector underwent a significant performance shift, particularly notable in the year's analysis. This period marked a significant milestone for the industry, as Addis Bank emerged as the top performer, achieving an average score of 1.206. This accomplishment underscores Addis Bank's strategic maneuvers or operational enhancements, positioning it as a leader in the sector's performance metrics. Additionally, ENAT demonstrated a robust performance, securing the second position with an average score of 1.521, indicating its sustained competitiveness in the market. However, the most notable observation was Debub Bank's decline to the third position, reflecting a decrease in its average score to 1.467.

Regarding the liquidity position, in 2020, the banking sector experienced a notable rearrangement in performance metrics, accentuated by the year's analysis. This period saw a marked downturn in the overall performance of most banks, with significant disparities evident in the rankings. Notably, Addis Bank, previously known for consistent performance, faced a substantial decline in its average score, relegating it to the eighth position. This downturn could stem from various factors like economic downturns, strategic missteps, or operational challenges encountered by the bank throughout the year. Similarly, ENAT, which had maintained the top position in preceding years, also witnessed a performance decline, albeit less severe than Addis Bank's, resulting in a sixth-place ranking in 2020. Conversely, Debub Bank, historically struggling to secure higher rankings, notably improved its position, ascending to third place in 2020.

### 5.2 Recommendation

Based on the analysis conducted across various performance metrics within the banking sector, several recommendations can be proposed:

### 1. \*\*Capital Adequacy Ratio:\*\*

- Recognize the subtle shifts in average performance among banks in terms of capital adequacy.
- Encourage ENAT to sustain its marginal increase to maintain competitiveness.
- Acknowledge Addis Bank's stable performance and strategize to further enhance its position.
- Support Debub Bank in capitalizing on its modest increase to solidify its standing in the sector.

### 2. \*\*Asset Quality Ratio: \*\*

- Identify the notable performance shift observed, particularly with Debub Bank's remarkable ascent.
- Emphasize strategic initiatives or market opportunities that contribute to Debub Bank's success.
- Ensure ENAT and Addis Bank address the slight decreases in their averages to maintain their strong positions.

#### 3. \*\*Management Ability: \*\*

- Address the significant shifts in performance rankings witnessed, with Debub Bank emerging as a top performer.
- Support ENAT and Addis Bank in mitigating the slight decreases in their averages while maintaining strong positions.

#### 4. \*\*Earning Quality: \*\*

- Acknowledge Addis Bank's top performance in 2020, attributed to strategic manoeuvres or operational enhancements.
  - Sustain ENAT's robust performance to uphold its competitiveness in the market.

- Assist Debub Bank in addressing the decline in its average score to ensure sustained performance improvement.

### 5. \*\*Liquidity Position: \*\*

- Address the notable rearrangement in performance metrics observed in 2020.
- Identify and mitigate factors contributing to Addis Bank's substantial decline in average score.
- Support ENAT in navigating the performance decline to maintain its competitive edge.
- Recognize and capitalize on Debub Bank's improved position, facilitating continued progress in liquidity management.

Overall, these recommendations aim to guide banks in leveraging their strengths, addressing weaknesses, and navigating challenges to ensure sustained competitiveness and growth within the dynamic banking sector.

### References

Global Finance Magazine. (2015). The world's best emerging markets banks in Africa 2015. Global Finance Magazine, March 11, 2015. Retrieved on February 17, 2016 from https://www.gfmag.com/media/press-releases/global-finance-names-worlds-best-emerging-mar¬kets-banks-africa-2015?

Aldasoro, I., Fender, I., Hardy, B., & Tarashev, N. (2020). Effects of Covid-19 on the banking sector: the market's assessment (No. 12). Bank for International Settlements

Gormsen, N., & Koijen, R. S. (2020). Coronavirus: Impact on stock prices and growth expectations. University of Chicago, Becker Friedman Institute of Economics Working Paper.

World Bank. The History of Banks. 2021. Available online: https://www.worldbank.org.ro/about-banks-history (accessed on 10 February 2022).

Candera, M. and Dwi, K. (2020), 'Financial Performance Islamic Banking: A Comparative Analysis Before and During the Covid-19 Pandemic in Indonesia', Indah International Journal of Business 1(2) Management & Economics Research e-ISSN: 2746-1351

Ndungu S.M., (2021), 'Are Pandemics a Threat to Businesses? Lessons from Covid Pandemic; a Case of Banking Sector in Kenya', International Journal of 69 Managerial Studies and Research, 9 (2), pp. 0110 Available at https://doi.org/10.20431/2349

Ephrem Endalamaw (2021) ASSESSMENT OF BANKS PERFORMANCE DURING COVID-19: THE CASE OF DASHEN BANK

Misra, S. K., & Aspal, P. K. A Camel Model Analysis of State Bank Group. World Journal of

Social Sciences; 2013; 3(4):36 – 55

Cole, Rebel A. and Gunther, Jeffery (1998). "Predicting Bank Failures: A Comparison of On-And

Off-Site Monitoring Systems". Journal of Financial Services Research, 13(2), p. 103-117.

Bhaskar Bagchi1, Jayanta Chakrabarti2 & Piyal Basu Roy "Influence of Working Capital Management on Profitability: A Study on Indian FMCG Companies"

Gupta Ashish\*, Sundram V. S. 21 January, 2015 "Profitability analysis of selected public sector banks in India "

Mulualem, G. "Analyzing financial performance of commercial banks in Ethiopia: CAMEL Approach." Addis abbaba, ET: Doctoral dissertation, AAU University (2015).

Siva, S., and P. Natarajan. "Camel rating scanning (CRS) of SBI groups." Journal of Banking Financial Services and Insurance Research 1.7 (2011): 1-17.

Teshome, A. (2018). Financial Performance analysis of Commercial Banks in Ethiopia: A CAMEL Approach (Doctoral dissertation, Addis Ababa University Addis Ababa, Ethiopia).

(Kurniawati, 2012) Analisis Komparatif Kinerja Keuangan Perbankan Syariah Menggunakan

Metode Camels Pada Sebelum, Selama Dan Sesudah Krisis Global Tahun 2008

(Lupa et al., 2016) Analisis Perbandingan Tingkat Kesehatan Perbankan Syariah Dengan

Perbankan Konvensional Dengan Metode CAME

https://debubglobalbank.com/company-overview/

https://addisbanksc.com/company-profile-2/about-us/

https://www.enatbanksc.com/history/

# Appendices

		31 June	30 June	30 June	30 June	31 June				
	30 June 2023	2015	2016	2017	2018	2019	2020	2021	2022	2023
Bank	Birr'000	Birr'000	Birr'000	Birr'000	Birr'000	Birr'000	Birr'000	Birr'000	Birr'000	Birr'000
ENAT	crar	0.36	0.40	0.36	0.36	0.30	0.28	0.23	0.23	0.24
ENAT	DEBT TO Equity	0.02	0.03	0.02	0.02	0.02	0.08	0.08	0.09	0.05
	DEBT TO Equity	0.02	0.03	0.02	0.02	0.02	0.00	0.00	0.07	0.03
ENAT	advance to asset	0.05	0.50	0.05	0.51	0.55	0.58	0.61	0.65	0.66
	NPA to total									
ENAT	loans	2.20	1.80	2.60	3.20	3.20	4.10	5.90	3.20	3.80
ENAT	advance to asset	-								
	total advances to									
ENAT	total deposit	0.06	0.65	0.06	0.65	0.68	0.77	0.80	0.86	0.84
	total income to									
	number of									
ENAT	employees	841.32	786.48	841.32	896.16	951.00	1,029.03	1,160.40	922.77	1,460.02
	profit after tax to									
ENAT	employes	264.43	204.63	264.43	324.23	384.04	319.40	336.80	287.71	405.40
	dividend to net									
ENAT	profit	0.49	0.54	0.49	0.45	0.36	0.67	0.63	0.61	0.32
	net profit to total									
ENAT	asset	0.02	-	0.02	0.02	0.02	0.02	0.02	0.02	0.02
	interest income									
ENAT	to total income	0.58	0.55	0.58	0.65	0.76	0.79	0.78	0.77	0.69
EN LA E	other income to	0.00	0.12	0.00	0.10	0.07		0.00	0.00	0.12
ENAT	total income	0.09	0.13	0.09	0.10	0.07	0.04	0.09	0.08	0.13
ENAT	liquidity asset to	0.27	0.72	0.27	0.71	0.74	0.79	0.82	0.84	0.95
ENAI	total asset	0.27	0.73	0.27	0.71	0.74	0.78	0.82	0.84	0.85
	government securities to total									
ENAT	asset	-								
	approved									
	securities to total									
ENAT	asset	-								
	liquidity asset to									
ENAT	demand asset	9,968.20	9,326.86	9,968.20	9,868.69	9,668.25	9,645.14	7,377.41	7,791.49	5,963.04
	liquidity asset to									
ENAT	total deposit	0.35	0.96	0.35	0.91	0.91	1.04	1.06	1.11	1.09

_	1	1	1	1	1	T .	1	1	1	1
ADDIS	crar	0.64	0.60	0.48	0.44	0.42	0.39	0.36	0.36	0.35
ADDIS	DEBT TO Equity	0.13	0.10	0.10	0.07	0.07	0.06	0.09	0.05	0.06
ADDIS	advance to asset	0.39	0.42	0.45	0.48	0.48	0.53	0.51	0.56	0.59
ADDIS	NPA to total loans	5.12	5.12	1.80	2.10	4.60	4.20	3.30	3.20	2.50
ADDIS	advance to asset	-								
	total advances to									
ADDIS	total deposit	0.66	0.66	0.68	0.69	0.67	0.74	0.72	0.78	0.83
	Total income to									
	number of									
ADDIS	employees	529.40	590.25	620.65	681.50	801.40	886.26	1,002.08	1,120.59	986.67
	profit after tax to									
ADDIS	employes	187.69	196.25	210.25	218.81	276.97	329.90	343.77	353.34	191.00
	dividend to net									
ADDIS	profit	0.78	0.72	0.67	0.61	0.49	0.54	0.54	0.00	1.19
	net profit to total									
ADDIS	asset	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.02
	interest income									
ADDIS	to total income	0.55	0.61	0.53	0.59	0.61	0.62	0.57	0.54	0.66
	other income to									
ADDIS	total income	(0.00)	0.01	0.01	0.02	0.02	0.01	0.01	0.05	0.02
	liquidity asset to									
ADDIS	total asset	0.73	0.73	0.72	0.73	0.72	0.76	0.72	0.77	0.76
	government									
	securities to tal									
ADDIS	asset	0.18	0.19	0.19	0.19	0.19	0.13	0.10	0.07	0.06
	approved									
	securities to total									
ADDIS	asset	-								
	liquidity asset to									
ADDIS	demand asset	17,067.36	20,125.36	19,635.45	22,693.45	11,240.80	4,392.23	6,248.63	3,975.37	4,577.55
	liquidity asset to									
ADDIS	total deposit	1.20	1.15	1.08	1.04	1.01	1.06	1.01	1.07	1.07

DEBUB	crar	0.80	0.64			
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			0.76		0.53	0.41	0.29	0.21	0.23	0.22
DEBUB	DEBT TO Equity	-	0.00	0.00	0.00	0.00	0.00	0.02	0.01	0.04
DEBUB	advance to asset	0.12	0.05	0.19	0.30	0.44	0.57	0.71	0.66	0.72
DEBUB	government securities to asset	2.12	2.34	3.34	4.20	5.20	6.20	4.20	4.60	4.90
DEBUB	NPA to total loans	-	-	-	-					
DEBUB	advance to asset	-	-	-	-					
DEBUB	total advances to total deposit	0.20	0.21	0.37	0.52	0.68	0.85	0.95	0.85	0.96
	total operating income to									
DEBUB	employes	253.02	279.08	483.25	659.25	863.90	1,068.56	1,306.44	883.52	921.88
DEBUB	profit after tax to employes	890.37	850.35	708.86	586.89	445.06	303.23	286.69	250.73	343.44
DEBUB	dividend to net profit	-	0.11	0.14	0.15	0.23	0.75	0.70	0.50	0.37
DEBUB	net profit to total asset	0.78	0.08	0.06	0.05	0.04	0.03	0.02	0.02	0.03
DEBUB	interest income to total income	0.43	0.43	0.44	0.45	0.46	0.47	0.64	0.81	0.76
DEBUB	other income to total income	0.08	0.08	0.09	0.06	0.14	0.22	0.16	0.09	0.11
DEBUB	liquidity asset to total asset	0.52	0.58	0.63	0.68	0.73	0.78	0.83	0.82	0.84
DEBUB	government securities to total asset	_	_	_	-					
DEDUB	approved securities to total	-	-	-	-					
DEBUB	asset	-	-	-	-					
DEBUB	liquidity asset to demand asset	37,211.00	3,511.96	3,789.50	4,028.77	4,306.98	4,585.19	7,329.30	7,298.40	7,496.85
DEBUB	liquidity asset to total deposit	1.52	1.08	1.10	1.11	1.13	1.15	1.11	1.06	1.11