JOEEP

e-ISSN: 2651-5318
Journal Homepage: http://dergipark.org.tr/joeep

Araştırma Makalesi ● Research Article

Financial Stability Analysis of Commercial Banks in East African Financial Markets: The Cases of Kenya and Ethiopia

Doğu Afrika Finans Piyasalarındaki Ticari Bankaların Finansal İstikrar Analizi: Kenya ve Etiyopya Örnekleri

Abdulkadir Mohamed Ibrahim [a], Hüseyin Öcal [b] & Tarık Yılmaz [c*]

[a] Istanbul Gelisim University, Gelişim Vocational School, 34310, İstanbul / Türkiye
ORCID: 0009-0005-1837-6529
[b] Istanbul Gelisim University, Gelişim Vocational School, 34310, İstanbul / Türkiye
ORCID: 0000-0002-2614-8199
[c] Marmara University, Faculty of Financial Sciences, 34865, İstanbul / Türkiye
ORCID: 0009-0008-0316-6635

M A K A L E B İ L G İ S İ

Makale Geçmişi:
Başvuru tarihi: 11 Mart 2025
Düzeltme tarihi: 9 Aralık 2025
Kabul tarihi:10 Şubat 2026

Anahtar Kelimeler:
CAMEL Analizi
Nairobi Borsası
Etiyopya Borsası
Finansal İstikrar

ÖZ

Bu çalışma, Kenya ve Etiyopya'daki bankaların finansal sağlamlığını CAMEL çerçevesi (Sermaye Yeterliliği (CA), Varlık Kalitesi (AQ), Yönetim Etkinliği (ME), Karlılık Kalitesi (EQ) ve Likidite (LIQ)) kullanarak değerlendirmektedir. 31 Aralık 2018 ile 31 Aralık 2022 tarihleri arasındaki on iki ticari bankaya ait finansal veriler, bankaların internet sitelerinden elde edilmiştir. Hem Kenya hem de Etiyopya bankaları, Basel II düzenleyici gerekliliklerinin üzerinde sermaye yeterliliği oranlarını korumaktadır. Ancak, Kenya bankaları risk ağırlıklı varlıklar için daha fazla sermaye bulundururken, en yüksek sermaye yeterliliği oranına Diamond Trust Bank (Kenya) sahiptir. Kenya bankaları, takibe düşen krediler için daha yüksek karşılık ayırırken, en yüksek karşılığı Abyssinia Bank (Etiyopya), en düşük karşılığı ise Co-operative Bank sağlamaktadır. Pandemi sonrası Kenya bankalarının krediye dayalı varlık kalitesi oranları düşerken, Etiyopya bankaları bu oranları iyileştirmiştir. Kenya bankaları daha yüksek verimlilik göstermiş olup, KCB Bank faiz geliri/gider oranında liderdir. Çalışma, güçlü ve zayıf yönleri ortaya koyarak yatırımcılar ve politika yapıcılar için önemli içgörüler sunmaktadır.

A R T I C L E I N F O

Article history:
Received: March 11, 2025
Received in revised form: Dec 9, 2025
Accepted: Feb 10, 2026

Keywords:
CAMEL Analysis
Nairobi Stock Exchange
Ethiopian Stock Exchange
Financial Stability

A B S T R A C T

This study evaluates the financial stability of banks in Kenya and Ethiopia using the CAMEL framework: Capital Adequacy (CA), Asset Quality (AQ), Management Efficiency (ME), Earnings Quality (EQ), and Liquidity (LIQ). Financial data from twelve commercial banks between December 31, 2018, and December 31, 2022, were collected from bank websites Both Kenyan and Ethiopian banks maintain capital adequacy ratios above Basel II regulatory requirements, with Kenyan banks holding more capital for risk-weighted assets. Diamond Trust Bank (Kenya) has the highest capital adequacy ratio. Kenyan banks allocate higher loan loss provisions for non-performing loans, with Abyssinia Bank (Ethiopia) having the highest provision and Co-operative Bank the lowest. Ethiopian banks improved loan-related asset quality, while Kenyan banks saw declines post-pandemic. Kenyan banks showed higher efficiency, with KCB Bank leading in interest income to expense ratio. The findings highlight key strengths and weaknesses, offering insights for investors and policymakers.

1. Introduction

East Africa is a region that stands out with its rapidly developing economies, increasing investment potential and growing financial markets. Countries in the region include Kenya, Tanzania, Uganda, Rwanda and Ethiopia, which have different economic structures and regulatory

* *Sorumlu yazar/Corresponding author*.
e-posta: *tarik.yilmaz@marmara.edu.tr*

Atıf/Cite as: Ibrahim, A.M., Öcal, H. & Yılmaz, T. (2026). Financial Stability Analysis of Commercial Banks in East African Financial Markets: The Cases of Kenya and Ethiopia *Journal of Emerging Economies and Policy*, 11(1), 23-39.

frameworks. Commercial banks play a vital role in the financial systems of these countries by encouraging savings, providing loans, supporting economic growth and facilitating financial transactions. During periods of recession and financial crisis, the banking sector plays a pivotal role in supporting the overall economy. Nevertheless, the situation can become increasingly dire for economic recovery when banks are at the epicentre of a financial downturn or are held accountable for a financial crisis. Consequently, it is imperative to thoroughly examine banking operations and their compliance with regulatory standards. The banking sector is also considered an indicator of economic health for investors, policymakers and regulators. Kenya has one of the most developed financial markets in the region. In this context, it hosts many large banks through the Nairobi Stock Exchange (NSE). Banks such as Kenya Commercial Bank, Equity Bank and Co-operative Bank are essential players in the country's banking sector. On the other hand, Ethiopia has a more closed financial system but has undertaken significant reforms in its financial sector in recent years and has taken steps to strengthen its banking system. Commercial Bank of Ethiopia, one of the largest banks in the country, is one of the main institutions that guide the financial sector with its state-controlled structure.

Although numerous studies have examined the financial performance of commercial banks in both developed and developing economies, comparative analyses focusing specifically on East Africa remain limited. To address this gap, this study selects Kenya and Ethiopia as the primary sample to represent the region's diverse financial landscape. This selection is based on the fact that these two nations constitute the largest economies in East Africa and embody contrasting financial models. Kenya operates as a liberalized financial hub with a market-oriented banking sector, whereas Ethiopia maintains a largely state-controlled financial system, despite recent reforms aimed at liberalization. Examining these two dominant players together utilizing the most recent available data provides a comprehensive perspective for understanding the broader financial stability dynamics of East Africa.

To achieve this objective, we use the CAMEL model to assess banks' financial performance, specifically to highlight their financial stability. Originally developed by U.S. bank regulatory authorities as a supervisory tool (Kaya, 2001), the model allows the analysis of banks' status based on essential criteria such as capital adequacy, asset quality, management quality, earning power, and liquidity (Baral, 2005). These components provide a structured and widely recognized basis for evaluating the safety and soundness of financial institutions, making the CAMEL framework suitable for comparative assessments of banking systems with differing regulatory and market structures. These elements are critical to investor confidence and market valuations, especially for banks traded on the stock exchange. This empirical paper provides functional information to investors, regulators and sector professionals by revealing the financial strengths and weaknesses of the banking sector in East Africa. The main focus of the research is to create a perspective for different financial systems in the region through examinations conducted on Kenyan and Ethiopian commercial banks. The following section explores the literature, section three introduces the methodology, section four discloses the findings, and section five concludes the paper.

2. Literature Review

Continuously evaluating and analysing the performance of each bank and the banking sector is crucial to ensure stability is preserved. Indicators of financial soundness assist in locating weaknesses that might endanger the soundness of the financial system (Demirgüç-Kunt & Huizinga, 2004). In addition, the importance of performance indicators and a macroprudential framework for comprehending the factors that influence the banking system's stability is emphasised (Demirgüç-Kunt et al., 2013). Moreover, understanding the banking industry's performance facilitates the adoption of measures that preserve financial stability (Boyd & De Nicolo, 2005).

Analysis of the financial performance of commercial banks in the East African Stock Exchange (EASE) markets has garnered significant academic interest. This focus is a testament to the region's economic importance and the critical role played by the banking sector. Mbiti and Weil (2023) examined the relationship between financial development and economic growth in Sub-Saharan Africa. Their research provides valuable insights into the broader implications of dynamics in the banking sector. Kimenyi (2017) expanded on these foundational studies by researching the distinctive function of commercial banks in the East African region. The researchers specifically emphasised the role of banks in promoting financial inclusion and supporting broader economic progress. Additionally, Ongore and Kusa (2013) conducted a detailed study to investigate the driving forces behind commercial banks' financial performance in East Africa. The study aimed to identify key factors influencing the success of these banks. Authors Njeru et al. (2020) and Odhiambo (2021) conducted a new study highlighting the challenges and opportunities faced by commercial banks in East Africa, contributing to a deeper understanding of the financial dynamics of these banks in a constantly changing financial environment.

African stock markets have historically exhibited a delay in stock market development indicators compared to other developed and emerging economies. According to Jefferis (1995) and Mbengue et al. (2023), several factors contribute to this underperformance. These include the scale of the macroeconomic environment, limited exposure to securities trading, and government policies prioritising debt financing over equity investment. The economies of African countries are relatively small in scale, making establishing stock markets a challenging process. Market participants allocate their disposable income to investment activities by utilising their savings. However, when national income is generally low, it is expected that the size of the stock market will be negatively affected. Many market participants in Africa lack fundamental financial knowledge and experience, which limits their ability to make optimal investment decisions (Afego, 2015).

The Nairobi Stock Exchange (Kenya), established in 1954, is regulated by the Capital Markets Authority (CMA), created through the Capital Markets Authority Act in 1989. The CMA oversees listed companies and the exchange's operations (Nairobi Stock Exchange, 2006). In 2000, the Nairobi Stock Exchange joined the East African Securities Exchanges Association (EASEA). By 2021, around 60 companies were listed in the stock market's equity section. According to Njiinu (2007), the exchange handles about 90% of stock exchange activities in East Africa and sets benchmarks for other regional markets. The market consists of three segments: the large investment market for major companies, the fixed-income securities segmant for bond trading, and the alternative investment market for small and medium-sized enterprises.

The Ethiopian Stock Exchange (EXE), established in 2008, has become a critical platform for securities trading and plays a vital role in the country's economic development. The exchange allows businesses to raise funds by issuing stocks and bonds, promoting investor participation and improving market transparency. EXE has served as a consolidated marketplace for securities trading, facilitating the mobilisation of domestic savings and directing them toward productive investments. By offering companies the chance to raise capital through equity and bond issuance, EXE ensures the efficient distribution of financial resources, thereby fostering corporate growth and development.

Kenya and Ethiopia have adopted various approaches regarding interest rates as part of their monetary policies. The interest rate policy of the Central Bank of Kenya has changed over the years according to economic conditions and monetary policy. The rate of 9% in 2018 may have been aimed at controlling inflation and stabilising the Kenyan shilling. The decrease of 8.50% in 2019 reflects efforts to pursue a more accommodative monetary policy and stimulate economic growth. The 7% rates in 2020-2021 were implemented to offset the economic effects of COVID-19 and aimed to increase economic activity by encouraging borrowing. The increase of 8.75% in 2022 aimed to control rising inflation. The significant increase of 13% in early 2024, which reflects 2023, is seen as an aggressive measure taken to keep high inflation and the currency stable.

On the other hand, Ethiopia kept its interest rate at around 7% from 2018 to 2023. The minimum loan interest rate, which stood at 7% in 2022, has remained at the same level as in 2021. Furthermore, the proposal to implement an inflation-adjusted interest rate regime within Ethiopia's monetary policy represents a significant change. Interest rate policies are part of the National Bank of Ethiopia's strategies to combat inflation and global economic challenges.

Although East African stock exchanges have demonstrated impressive performance, there are still challenges to overcome. Economic fluctuations, external shocks, and exchange rate volatility occasionally threatened market security. However, these threats have been mitigated mainly through the coordinated efforts of regulatory authorities, market participants, and initiatives to enhance market transparency (CMA, 2020). As East African stock exchanges progress toward international integration, they now offer investors more alternatives for diversification and a broader range of investment options. The success of these stock exchanges reflects the region's financial health and potential to become a global financial hub as the continent's economy and financial sector continue to expand.

The total assets of the banking sector in Kenya were estimated at 6.5 trillion Kenyan Shillings (approximately 46 billion USD) in 2022. The combined assets of the six selected commercial banks—KCB Bank, Equity Bank, NCBA Bank, Co-operative Bank, DTB, and ABSA Bank—amount to 5.2 trillion Kenyan Shillings. This represents 80% of the total assets in Kenya's banking sector (Tiriongo, Josea, & Mulindi, 2022).

In Ethiopia, the total assets of the banking sector were valued at 2.4 trillion Birr (approximately 56 billion USD). The combined assets of the six selected commercial banks—Commercial Bank of Ethiopia, Dashen Bank, Wegagen Bank, Bank of Abyssinia, Cooperative Bank of Oromia, and Hibrat Bank—total 1.8 trillion Birr, which constitutes 80% of the total assets in Ethiopia's banking sector (International Trade Administration, 2022).

3. Methodology

The financial analysis of commercial banks listed on the East African Stock Exchange was conducted using the CAMEL model, which focuses on key financial indicators such as Capital Adequacy, Asset Quality, Management Efficiency, Earnings Quality, and Liquidity.

The CAMEL model is a comprehensive analytical framework to assess banks' financial condition and performance (Mishra & Aspal, 2012). Each component examines a specific aspect of banking operations. Capital Adequacy evaluates the strength of a bank's capital structure and its resilience to risks (Ferrouhı, 2014). The calculation is performed by dividing the total capital by the risk-weighted assets. The Bank for International Settlements in Basel mandates a minimum total capital ratio of 8%. This regulation aims to ensure that financial institutions maintain sufficient capital reserves to absorb potential losses while operating effectively, even under adverse economic conditions. Asset Quality measures the reliability of a bank's assets and the risk levels within its credit portfolio (Majumder & Rahman, 2016). The Loan Loss Provisions to Total Loans ratio is a commonly utilised metric for assessing asset quality (AQ). An increased ratio indicates that more loans may not be repaid per the original terms, signifying an elevated credit risk within a bank's loan portfolio. Management Efficiency analyses the success of the management team in decision-making processes and the effective utilisation of resources (Nguyen, Nguyen, & Pham, 2020). Earnings Quality assesses a bank's profitability and the sustainability of its income sources, while Liquidity Management determines the bank's ability to meet its short-term obligations (Ishaq, Karim, Zaheer, & Ahmed, 2015). Financial institutions must balance maintaining adequate liquidity for immediate requirements and efficiently utilising resources for profit maximisation. Insufficient liquidity may lead to financial difficulties, while excessive liquidity may indicate underutilised assets. CAMEL framework enables a thorough evaluation of banks' financial health and performance.

3.1. Sample Selection

This study focuses on two East African countries, Kenya and Ethiopia. To ensure a robust and comparable analysis, a purposive sampling technique was employed, selecting commercial banks that are among the largest by market share and have consistent financial reporting for the study period. Banks with incomplete or inconsistent data were excluded to maintain data reliability and comparability. Table 1 presents the final sample, which comprises twelve commercial banks, six from Kenya and six from Ethiopia.

Table 1: List of Commercial Banks Included in the Study

Banks Operating in Kenya	Banks Operating in Ethiopia
1. Kenya Commercial Bank (KCB)	1. Commercial Bank of Ethiopia (CBE)
2. Equity Bank	2. Awash International Bank
3. National Commercial Bank of Africa (NCBA)	3. Abyssinia Bank
4. Diamond Trust Bank	4. Dashen Bank
5. Co-operative Bank	5. Co-operative Bank of Oromia (COOP)
6. Absa Bank	6. Hibret Bank

3.2. Data Collection and Analysis

The study relies on secondary data derived from the analysis of historical financial statements. The data were collected from bank reports, audited financial statements, journals, and annual reports. Secondary data covering the five-year period from 2018 to 2022 were used to calculate the fundamental financial ratios of commercial banks in Kenya and Ethiopia. The specific ratios utilized for each CAMEL component to analyze the collected data are detailed in Table 2.

Table 2: Ratios used for each CAMEL component

	Variable	Measurement
C	Capital Adequacy	a) Total Shareholder's Equity / Total Assets b) Capital Adequacy Ratios
A	Asset Quality	a) Financial Asset (net) / Total Asset b) Total Loans / Total Assets c) Total Loans / Total Deposit d) Loan Loss Provisions / Total Loans e) Fixed Assets / Total Assets f) Change % in Total Assets
M	Management Efficiency	a) Interest Income / Total Assets b) Net Interest Income / Total Operating Income c) Non-interest Income (net) / Total Assets d) Interest Income / Interest Expenses e) Total Revenue / Total Assets
E	Earning Quality	a) Net Profit (Loss) for the Period / Total Assets b) Net Profit (Loss) for the Period / Equity
L	Liquidity	a) Financial Assets / ST Debt & Current Portion LT Debt

The study focuses on historical data, including primary and secondary data based on the analysis of historical financial statements. The data were collected from bank reports, audited financial statements, journals, and annual reports. Secondary data for five years (2018-2022) were used to calculate the fundamental financial ratios of commercial banks in Kenya and Ethiopia.

4. Findings

4. 1 Kenya's Commercial Banks

As presented in Table 3, KCB's capital adequacy ratio, measured by Total Shareholder's Equity to Total Assets, decreased from 15.91% in 2018 to 12.88% in 2022, with a significant drop between 2021 and 2022. The ratio fluctuated from 15% in 2018 to 14% in 2020, then peaked at 15% in 2021 before falling to 13% in 2022. The capital adequacy ratio, calculated by dividing total capital by risk-weighted assets, follows the same pattern. Despite these fluctuations, KCB remains above the 8% regulatory minimum set by BASEL II.

Asset quality measured by the Financial Asset (net) to Total Assets ratio increased from 23% in 2018 to 30.6% in 2021 before slightly decreasing to 25% in 2022. Total Loans to Total Assets declined from 68.8% in 2018 to 66% in 2022. The Total Loans to Total Deposits ratio dropped from 91% in 2018 to 80.6% in 2020, before rising again to 90% in 2022. Loan Loss Provisions to Total Loans significantly dropped from 6.7% in 2018 to 1% in 2022, reflecting improved credit quality. Fixed Assets to Total Assets rose in the first two years, peaked at 6.9% in 2020, and then fluctuated between 4.8% and 6.2% in 2021 and 2022. Total Assets saw fluctuating growth, with a sharp increase of 36.36% in 2022 after the lowest growth of 9.93% in 2020.

Table 3: KCB Bank's ratios

Financial Ratio	2018	2019	2020	2021	2022
Capıtal Adequacy Ratios					
Total Shareholder's Equity / Total Assets	15.91%	14.4%	14.42%	15.07%	12.88%
Capital Adequacy Ratios	15%	14%	14%	15%	13%
Asset Quality Ratios					
Financial Asset (Net) / Total Asset	23%	26%	28%	30.6%	25%
Total Loans / Total Assets	68.8%	65%	62.6%	61%	66%
Total Loans / Total Deposit	91%	84%	80.6%	83.8%	90%
Loan Loss Provisions / Total Loans	6.7%	3.35%	4.4%	1.99%	1%
Fixed Assets /Total Assets	6.3%	7.9%	6.9%	4.8%	6.2%
Change % in Total Assets	26.6%	25.80%	9.93%	15.37%	36.36%
Liquidity Ratios					
Financial Assets / St Debt & Current Portion Lt Debt	7.8	11.7	13.4	7.11	4.14
Profitability Ratios					
Net Profit (Loss) For the Period / Total Assets	3.36%	2.80%	1.98%	3.00%	2.63%
Net Profit (Loss) For the Period /Equity	21.11%	19.40%	13.76%	19.70%	19.79%
Efficiency Ratios					
Interest Income / Total Assets	9.2%	8.86%	9.74%	10.07%	8.49%
Net Interest Income / Total Operating Income	1.42	1.67	2.93	1.93	1.77
Non-İnterest Income (net) / Total Assets	1.55%	2.25%	2.22%	2.5%	2.16%
Interest Income / Interest Expense	3.80	4.37	4.54	4.69	4.24
Total Revenue / Total Asset	11.7%	10.94%	11.89%	12.22%	10.43%

Management efficiency measured by Interest Income to Total Assets fluctuated from 9.2% in 2018 to 8.49% in 2022, with a peak of 10.07% in 2021. Net Interest Income to Total Operating Income peaked at 2.93 in 2020 but fell to 1.77 in 2022 due to increased non-interest income. Non-interest Income to Total Assets dropped from 4.22% in 2018 to 1.53% in 2022. Interest Income to Interest Expenses rose from 3.80 in 2018 to 4.69 in 2021 before slightly declining to 4.24 in 2022. Total Revenue to Total Assets peaked at 12.22% in 2021 and then dropped to 10.43% in 2022, reflecting increased operating expenses relative to interest income.

Earning quality measured by the Net Profit to Total Assets ratio fluctuated, starting at 3.36% in 2018, dipping to 1.98% in 2020, and recovering to 2.63% in 2022. Net Profit to Equity decreased from 21.11% in 2018 to 19.4% in 2019, increased to 19.7% in 2021, and further rose to 19.76% in 2022. The decline before 2021 was attributed to the pandemic, while the post-2021 recovery reflects successful post-pandemic strategies.

Liquidity measured by the Financial Assets to Short-Term Debt and Current Portion of Long-Term Debt ratio averaged 7.8 in 2018, peaked at 13.4 in 2020, and then declined to 7.11 in 2021 and 4.14 in 2022. The drop from 13.4 in 2020 to 4.14 in 2022 reflects reduced liquidity risk after the pandemic, with the high 2020 ratio caused by COVID-19-related uncertainty.

KCB entered the pandemic years with a good capital adequacy ratio. Although the ratio decreased, it remains above the regulatory requirement of 8% after the pandemic. We observe an increase in securities, a decrease in loans granted, and a decrease in asset growth during the pandemic. Profitability ratios were stable, except in 2020, over the period under study. Management was successful at keeping interest margins steady; in other words, the team was good at managing efficiency ratios. We must remember that the reduction in policy rates supported the management team's efforts to stabilise margins and profitability because banks make capital gains from securities portfolios when interest rates fall. In addition, the cost of capital of banks' clients decreases, leading to fewer problem loans.

Table 4: Equity Bank's ratios

Financial Ratio	2018	2019	2020	2021	2022
Capıtal Adequacy Ratios					
Total Shareholder's Equity / Total Assets	16.4%	16.43%	13.02%	12.9%	12.18%
Capital Adequacy Ratios	19.0%	18.0%	16.2%	21.0%	22.4%
Asset Quality Ratios					
Financial Asset (Net) /Total Asset	37.8%	36.5%	36.7%	43%	40%
Total Loans / Total Assets	55%	56.6%	56%	50%	52%
Total Loans / Total Deposit	75%	78.9%	77%	68.5%	71.6%
Loan Loss Provisions / Total Loans	2%	1.7%	4%	1.5%	1.8%

Fixed Assets/ Total Assets	5.6%	6%	4.9%	4%	5.3%
Change % in Total Assets	15.5%	17.4%	50.6%	28.5%	10.8%
Liquidity Ratios					
Financial Assets / St Debt & Current Portion Lt Debt	18.4	16.28	14.4	25.4	9.47
Profitability Ratios					
Net Profit (Loss) For the Period / Total Assets	3.4%	3.3%	1.9%	3.0%	3.1%
Net Profit (Loss) For the Period / Equity	20.7%	20%	14.%	22%	24.6%
Efficiency Ratios					
Interest Income / Total Assets	9.4%	9.6%	7.9%	7.8%	8.8%
Net Interest Income / Total Operating Income	1.4	1.5	2.8	1.4	1.6
Non-Interest Income (net) / Total Assets	1.2%	1.7%	1.6%	1.4%	1.5%
Interest Income / Interest Expense	4.5	4.4	4	3.9	3.8
Total Revenue / Total Asset	13.6%	13%	10.9%	10.5%	12%

As presented in Table 4, Equity Bank's capital adequacy ratio, calculated by dividing total capital by risk-weighted assets, increased from 19.0% in 2018 to 22.4% in 2022, except in 2020, surpassing regulatory requirements and showing improved financial resilience.

Asset quality measured by the Financial Asset (net) to Total Assets ratio declined from 37.8% in 2018 to 40% in 2022. Total Loans to Total Assets fluctuated, peaking at 56% in 2019 and then dropping to 52% in 2022. The Loan Loss Provisions to Total Loans ratio peaked at 4% in 2020 but dropped to 1.8% in 2022, indicating improved bad loan management. Fixed Assets to Total Assets rose to 5.3% in 2022. Total asset growth showed significant expansion, especially in the Kenyan market.

Management efficiency measured by Interest Income to Total Assets fluctuated, reaching 8.8% in 2022. Net Interest Income to Total Operating Income peaked at 2.8 in 2020, with non-interest income growing in 2021 and 2022. Non-Interest Income to Total Assets fell to 1.48% in 2021. Interest Income to Interest Expenses decreased from 4.5 in 2018 to 3.8 in 2022. Total Revenue to Total Assets peaked at 13.6% in 2018, slightly recovering to 12% in 2022, showing stable management from 2021 to 2022.

Earning Quality measured by the Net Profit to Total Assets ratio, declined from 3.4% in 2018 to 1.9% in 2020, recovering to 3.1% in 2022. The Net Profit to Equity ratio dropped to 14% in 2020 but rose to 24.6% in 2022, reflecting increased loan activity post-2020.

Liquidity measured by the Financial Assets to Short-Term Debt and Current Portion of Long-Term Debt ratio dropped significantly, from 18.4 in 2018 to 9.47 in 2022, reflecting the bank's preference for loan growth over holding financial assets.

Equity Bank entered the pandemic years with a very good capital adequacy ratio. Although the ratio decreased, it surpassed regulatory requirements and showed improved financial resilience. We observe that ratios were stable in the first three years except for the loan loss provision to total loans ratio. In addition, there was an increase in security investments and a decrease in granting loans in 2021 and 2021. Profitability ratios were stable, except in 2020, over the period under study. Management was successful at keeping interest margins steady; in other words, the team was good at managing efficiency ratios. There was a slight decrease in 2020 and 2021. However, the management team improved the efficiency ratio very fast. We must remember that the reduction in policy rates supported the management team's efforts to stabilise margins and profitability because banks make capital gains from securities portfolios when interest rates fall.

Table 5: National Commercial Bank of Africa's ratios

Financial Ratios	**2018**	**2019**	**2020**	**2021**	**2022**
Capital Adequacy Ratios					
Total Shareholder's Equity / Total Assets	17.01%	13.54%	13.71%	13.17%	13.3%
Capital Adequacy Ratios	19.0%	18.0%	16.2%	21.0%	22.4%
Asset Quality Ratios					
Financial Asset (net) /Total Asset	36.2%	37.3%	37.9%	44.9%	43.8%
Total Loans / Total Assets	58.6%	55.5%	54.8%	48.5%	48.7%
Total Loans / Total Deposit	84.5%	72%	68.6%	60.9%	60%

Loan Provisions / Total Loans	2.7%	2%	6.9%	3.9%	4.1%
Fixed Assets /Total Assets	3.1%	4.8%	4.5%	3.7%	4.9%
Change % in Total Assets	15.68%	17.49%	50.68%	28.55%	10.89%
Liquidity Ratios					
Financial Assets / ST Debt & Current Portion LT Debt	7.45	7.69	14.34	15.6	25.8
Profitability Ratios					
Net Profit (Loss) for the Period / Total Assets	2%	1.6%	0.8%	1.7%	2.2%
Net Profit (Loss) for the Period / Equity	11.9%	11.6%	6.4%	13.2%	16.8%
Efficiency Ratios					
Interest Income / Total Assets	10.1%	6.9%	10.4%	9.7%	10.3%
Net-interest Income / Total Operating Income	2.1	2.7	3.9	2.5	1.9
Non-interest Income (net) / Total Assets	1.5%	1.6%	1.8%	2%	1.2%
Interest Income / Interest Expense	2.4	2.7	2.8	2.9	2.9
Total Revenue / Total Asset	12%	8.2%	12.3%	11.5%	13.3%

As presented in Table 5, NCBA's capital adequacy ratio, calculated by dividing total capital by risk-weighted assets, increased from 19.0% in 2018 to 22.4% in 2022, except in 2020, surpassing regulatory requirements and showing improved financial resilience.

Asset quality measured by the Financial Asset (net) to Total Assets ratio rose from 36.2% in 2018 to 43.8% in 2022. Total Loans to Total Assets fluctuated, dropping to 48.5% in 2021 but rising to 48.7% in 2022. Total Loans to Total Deposits decreased from 84.5% in 2018 to 60% in 2022. Loan Provisions to Total Loans peaked at 6.9% in 2020 and declined to 3.9% by 2022. Fixed Assets to Total Assets peaked at 4.9% in 2022. Asset growth was volatile, with a substantial increase in the first three years, followed by a decline in 2021-2022, signalling effective risk management.

Management efficiency measured by Interest Income to Total Assets fluctuated, peaking at 10.4% in 2020, then stabilising at 10.3% in 2022. Net Interest Income to Total Operating Income rose to 3.9 in 2021 but declined in 2022. Non-Interest Income to Total Assets peaked at 2% in 2021, then fell to 1.2% in 2022. Interest Income to Interest Expenses increased from 2.4 in 2018 to 2.9 in 2022. Total Revenue to Total Assets peaked at 13.3% in 2022, showing better management of interest expenses relative to income.

Earning quality, measured by the Net Profit to Total Assets ratio, increased from 0.8% in 2020 to 2.2% in 2022. The Net Profit to Equity ratio improved from 6.4% in 2020 to 16.8% in 2022, reflecting increased profitability after higher loan loss provisions in 2020.

Liquidity measured by the Financial Assets to Short-Term Debt and Current Portion of Long-Term Debt ratio rose sharply from 7.45 in 2018 to 25.8 in 2022, indicating a strong liquidity position, capable of covering short-term liabilities and current debt portions.

NCBA entered the pandemic years with a very good capital adequacy ratio. Investment in securities and loans was stable in the first three years, which could be due to a strong capital base. Investment in securities and loans decreased during the rest of the period under study. In addition, the bank increased the amount of deposits collected during the pandemic. Profitability ratios were stable, except in 2020, over the period under study. Management succeeded in keeping interest margins steady; in other words, the team was very good at managing efficiency ratios. We must remember that the reduction in policy rates supported the management team's efforts to stabilise margins and profitability because banks make capital gains from securities portfolios when interest rates fall.

As presented in Table 6, Diamond Trust Bank's capital adequacy ratio, calculated by dividing total capital by risk-weighted assets, decreased slightly from 23.3% in 2018 to 22.4% in 2022. Throughout the period under study, it maintained the most substantial capital and stability in Kenya. The ratio exceeded the 8% regulatory minimum based on BASEL II.

Asset quality measured by the Financial Assets (net) to Total Assets ratio increased slightly from 41% in 2018 to 42.7% in 2022, indicating a higher focus on financial assets. The Total Loans to Total Assets ratio decreased from 54.8% in 2018 to 51.8% in 2022. The Total Loans to Total Deposits ratio dropped from 73% in 2018 to 70% in 2022. Loan Loss Provisions to Total Loans fluctuated but showed an overall decline, signalling improved credit quality. Fixed Assets to Total Assets remained stable, reflecting minimal investment in fixed assets. The Change in Total Assets ratio grew from 7.2% in 2018 to 15.35% in 2022, indicating rapid growth.

Table 6: Diamond Trust Bank's ratios

Financial ratios	**2018**	**2019**	**2020**	**2021**	**2022**
Capital Adequacy Ratios					
Total Shareholder's Equity / Total Assets	14.2%	15.2%	14.5%	14.7%	13%
Capital Adequacy Ratios	23.3%	22.8%	21.5%	21.4%	22.4%
Asset Quality Ratios					

Financial Asset (net) /Total Asset	41%	41.3%	41%	43%	42.7%
Total Loans / Total Assets	54.8%	53.7%	53.7%	51.7%	51.8%
Total Loans / Total Deposit	73%	74%	76%	71%	70%
Loan loss Provisions / Total Loans	1.3%	0.49%	3.0%	2.9%	2.4%
Fixed Assets / Total Assets	3.2%	3.7%	3.4%	3.12%	3.13%
Change % in Total Assets	7.2%	2.25%	10.06%	7.48%	15.35%
Liquidity Ratios					
Financial Assets / ST Debt & Current Portion LT Debt	4.89	4.67	4.71	9.54	4.29
Profitability Ratios					
Net Profit (Loss) for the Period / Total Assets	1.77%	1.75%	0.76%	0.85%	1.15%
Net Profit (Loss) for the Period / Equity	11.3%	10.5%	4.7%	5.2%	7.8%
Efficiency Ratio					
Interest Income / Total Assets	9.3%	8.5%	7.3%	7.4%	7.6%
Net Interest Income / Total Operating Income	1.8	1.6	3.9	2.6	2.3
Non-interest Income (net) / Total Assets	1.65%	1.66%	1.53%	1.17%	1.19%
Interest Income / Interest Expense	2.31	2.32	2.3	2.4	2.3
Total Revenue / Total Asset	10.7%	9.9%	8.7%	8.9%	9.2%

Management efficiency, measured by the Interest Income to Total Assets ratio, decreased from 9.3% in 2018 to 7.6% in 2022. The Net Interest Income to Total Operating Income ratio declined from 1.8% in 2018 to 2.3% in 2022. Non-

Interest Income to Total Assets dropped from 1.65% in 2018 to 1.19% in 2022, reflecting lower non-interest income generation. The Interest Income to Interest Expenses ratio remained stable at around 2.3, indicating a steady net interest

margin. The management efficiency ratio showed minimal change over the years.

Earning quality measured by the Net Profit to Total Assets ratio fluctuated, starting at 1.77% in 2018, dipping to 0.76% in 2020, and recovering to 1.15% in 2022. The Net Profit to Equity ratio decreased from 11.3% in 2018 to 4.7% in 2020, then improved to 7.8% in 2022. The drop in earning quality in 2020 can be attributed to the pandemic, while the recovery post-2022 reflects positive effects from pandemic recovery measures, such as market re-openings and increased loan activity.

Liquidity measured by the financial assets to short-term debt and current portion of long-term debt fluctuated from 4.89% in 2018 to 4.29% in 2022, indicating variability in the bank's liquidity position. The decrease in 2022 suggests a preference for granting loans over holding financial assets.

Throughout the period under study, Diamond Trust Bank maintained the most substantial capital and stability in Kenya. The bank invested in securities and loans as there was no pandemic period. Moreover, it had the lowest loan loss provision in the market. Profitability ratios were stable, except in 2020 and 2021, over the period under study. Management was successful at keeping interest margins steady. We must remember that the reduction in policy rates supported the management team's efforts to stabilise margins and profitability because banks make capital gains from securities portfolios when interest rates fall.

As presented in Table 7, Co-operative Bank's capital adequacy ratio, calculated by dividing total capital by risk-weighted assets, grew from 19% in 2018 to 22.4% in 2022, except in 2020.

Asset quality, measured by the Financial Assets to Total Assets ratio, rose from 32.8% in 2018 to 33.6% in 2022. Loans to Total Assets declined slightly from 60.5% in 2018 to 57.6% in 2022. Loan loss provisions increased from 0.6% in 2018 to 2.4% in 2022, showing improved credit quality. Fixed Assets to Total Assets rose from 6% in 2018 to 6.6% in 2022, reflecting investment growth. Total Assets growth fluctuated, with a significant decline in 2022.

Table 7: Co-operative Bank's ratios

Financial ratios	**2018**	**2019**	**2020**	**2021**	**2022**
Capital Adequacy Ratios					
Total Shareholder's Equity / Total Assets	16.78%	17.26%	16.81%	17.21%	17.67%
Capital Adequacy Ratios	19.0%	18.0%	16.2%	21.0%	22.4%
Asset Quality Ratios					
Financial Asset (net) /Total Asset	28.2%	32.8%	32.7%	37.4%	33.6%
Total Loans / Total Assets	63.8%	60.5%	56.6%	55%	57.6%
Total Loans / Total Deposit	86.2%	83.1%	80.3%	78.2%	82.5%
Loan Provisions / Total Loans	0.6%	0.9%	2.6%	2.5%	2.4%

Fixed Assets /Total Assets	6%	4.7%	6.2%	5.4%	6.6%
Change % in Total Assets	9%	10.50%	17.50%	7.96%	4.72%
Liquidity Ratios					
Financial Assets / ST Debt & Current Portion LT Debt	22.2	57.5	66.7	97.1	28.6
Profitability Ratios					
Net Profit (Loss) for the Period / Total Assets	3.07%	3.17%	2.16%	2.88%	3.60%
Net Profit (Loss) for the Period / Equity	17.9%	18.1%	12.6%	16.7%	20.3%
Efficiency Ratios					
Interest Income / Total Assets	10.5%	9.8%	9.1%	9.6%	10.2%
Net Interest Income / Total Operating Income	1.7	1.5	2.2	1.8	1.5
Non-interest Income (net) /Total Assets	2.8%	1.8%	2.1%	1.8%	1.2%
Interest Income / Interest Expense	3.6	3.5	3.8	3.7	3.8
Total Revenue / Total Asset	9%	13.3%	12.4%	13%	14.4%

Management efficiency measured by Interest Income to Total Assets decreased slightly from 10.5% in 2018 to 10.2% in 2022. Net Interest Income to Operating Income declined from 1.7 to 1.5, showing lower income from core activities. Non-Interest Income to Total Assets dropped from 2.8% in 2018 to 1.2% in 2022, suggesting the need for more diverse income streams. Interest Income to Expenses improved from 3.6 in 2018 to 3.8 in 2022.

Earning quality measured by Net Profit to Total Assets

increased from 3.07% in 2018 to 3.60% in 2022, showing improved profitability. Net Profit to Equity grew from 17.9% in 2018 to 20.3% in 2022. Profitability was lower in 2020 due to increased loan loss provisions during the pandemic.

Table 8: Absa Bank's ratios

Financial ratios	**2018**	**2019**	**2020**	**2021**	**2022**
Capital Adequacy Ratios					
Total Shareholder's Equity / Total Assets	13.5%	12.1%	12.2%	13.2%	13.3%
Capital Adequacy Ratios	14.0%	14.1%	14.6%	21.0%	14.6%
Asset Quality Ratios					
Financial Asset(net) / Total Asset	28.6%	33.0%	33.8%	31.1%	28.5%
Total Loans / Total Assets	56.2%	53.2%	56.0%	55.2%	60.1%
Total Loans / Total Deposit	88.6%	83.5%	84.5%	88.2%	94.9%
Loan Provisions / Total Loans	2.1%	2.2%	4.0%	1.7%	2.3%
Fixed Assets / Total Assets	0.69%	0.75%	0.73%	0.55%	0.55%
Change % in Total Assets	13%	15.19%	14.4%	12.77%	11.38%
Liquidity Ratios					
Financial Assets / ST Debt & Current Portion LT Debt	17.5	30.3	31.5	27.8	19.5
Profitability Ratios					
Net Profit (Loss) for the Period / Total Assets	2.27%	1.98%	1.09%	2.53%	3.05%
Net Profit (Loss) for the Period / Equity	16.7%	16.4%	8.9%	19.3%	22.9%
Efficiency Ratios					
Interest Income / Total Assets	9.2%	8.4%	8.4%	7.6%	8.5%
Net Interest Income / Total Operating Income	2.13	2.22	4.2	1.66	1.55
Non-interest Income (net) / Total Assets	12.5%	11.8%	11.2%	10.3%	9.6%
Interest Income / Interest Expense	0.65	0.61	0.72	0.92	0.79
Total Revenue / Total Asset	9.7%	9.0%	8.9%	8.4%	9.4%

Liquidity measured by the Financial Assets to Short-Term Debt ratio increased from 22.2% in 2018 to a peak of 97.1% in 2021, before dropping to 28.6% in 2022. The spike in 2021 indicates ample coverage of short-term debt obligations, but the subsequent decrease in 2022 suggests a reduction in liquidity.

Co-operative Bank entered the pandemic years with a very good capital adequacy ratio. Investment in securities and loan loss provision increased; however, loans granted decreased until the end of the pandemic. Profitability ratios were stable over the period under study, except in 2020 and 2021. Management was successful at keeping interest margins steady. We must remember that the reduction in policy rates supported the management team's efforts to stabilise margins and profitability because banks make capital gains from securities portfolios when interest rates fall.

As presented in Table 8, Absa's capital adequacy ratio, represented by dividing total capital by risk-weighted assets, was stable throughout the study, peaking at 14.6% in 2022, exceeding the minimum regulatory requirement of 8% under BASEL II.

Asset quality measured by the Financial Asset/Total Asset ratio fluctuated, declining from 31.2% in 2021 to 28.5% in 2022. The Total Loans/Total Assets ratio increased from 56.2% in 2018 to 60.1% in 2022, with the Total Loans/Total Deposits ratio rising from 88.6% to 94.6% over the same period. The Loan Provisions/Total Loans ratio showed an upward trend until 2020, then fluctuated. Total assets grew steadily but at a slowing rate due to market fluctuations.

Management efficiency measured by the Interest Income/Total Assets ratio fluctuated, peaking at 8.5% in 2022. Net Interest Income/Total Operating Income declined from 4.2% in 2020 to 1.55% in 2022. Non-Interest Income/Total Assets declined, reaching 9.6% in 2022. The Interest Income/Interest Expense ratio gradually increased, indicating better management of interest expenses. Management efficiency declined in 2022, likely due to increased operating expenses relative to interest income.

Earning quality measured by Net Profit/Total Assets fluctuated, reaching 3.05% in 2022. Net Profit/Equity decreased from 16.7% in 2018 to 8.9% in 2020, then increased to 22.9% in 2021. The decline in earning quality before 2021 was linked to the pandemic, while post-2021 improvements were driven by aggressive loan marketing.

Liquidity measured by the Financial Assets/S.T. Debt ratio increased in the first three years but declined in 2021 and 2022. The decrease suggests Absa prefers lending over holding financial assets.

Absa Bank entered the pandemic years with a good capital adequacy ratio. However, it had the lowest capital adequacy ratio among the banks under study in Kenya. We observed that the bank invested in securities and loans during the period under study. Loan loss provision was stable except in 2020. Profitability ratios were stable over the period under study, except in 2020. Management was successful at keeping interest margins steady. However, the bank had the lowest interest Income/Interest Expense ratio among other banks reviewed in Kenya.

Consequently, the banks in Kenya had good capital adequacy ratios to fight the adverse effects of the pandemic. They had steadily invested in government securities. However, they had either kept the loan-related ratio stable or there were slight decreases. Banks’s profitability ratios decreased in 2020 and 2021 but then returned to normal. The management was also successful at managing banks efficiently.

4. 1 Ethiopia’s Commercial Banks

Table 9: Commercial Bank of Ethiopia’s ratios

Financial ratios	2018	2019	2020	2021	2022
Capital Adequacy Ratios					
Total Shareholder’s Equity / Total Assets	8.2%	7.0%	6.1%	6.4%	6.2%
Capital Adequacy Ratios	19%	18%	16.2%	21%	22.4%
Asset Quality Ratios					
Financial Asset (net) /Total Asset	9.1%	12.0%	11.9%	11.8%	10.9%
Total Loans / Total Assets	30.0%	27.7%	28.4%	28.1%	25.9%
Total Loans/Total Deposit	38.2%	36.5%	39.2%	37.8%	36.9%
Loan Provisions / Total Loans	4.3%	4.61%	4.2%	4.4%	4.5%
Fixed Assets /Total Assets	1.6%	1.5%	1.6%	1.34%	1.29%
Change % in Total Assets	17.1%	23%	15%	17%	21%
Liquidity Ratios					
Financial Assets / ST Debt & Current Portion LT Debt	5.2	8.2	8	7	6
Profitability Ratios					
Net Profit (Loss) for the Period/Total Assets	0.93%	1.61%	1.16%	1.34%	1.42%
Net Profit (Loss) for the Period/Equity	11.3%	22.8%	19.13%	20.9%	23.0%
Efficiency Ratios					
Interest Income /Total Assets	6.50%	6.40%	6.56%	6.58%	7.09%
Net Interest Income / Total Operating Income	0.528	0.476	0.424	0.393	0.380
Non-interest Income (net) / Total Assets	0.95%	1.3%	1.8%	1.6%	1.2%
Interest Income / Interest Expense	2.53	1.27	2.17	0.97	1.12
Total Revenue / Total Asset	7.45%	7.54%	8.37%	8.26%	8.9%

As presented in Table 9, The Commercial Bank of Ethiopia’s capital adequacy ratio, calculated by dividing total capital by risk-weighted assets, increased from 19.0%

in 2018 to 22.0% in 2022, except in 2020. In 2020, the ratio surpassed the minimum regulatory requirements(%8) set by Basel II.

The asset quality measured by the Financial Asset/Total Asset ratio fluctuated from 9.1% in 2018 to 10.9% in 2022. The Total Loans/Total Assets ratio declined from 30.0% in 2018 to 25.9% in 2022. The Loan Loss Provisions/Total Loans ratio remained steady between 4.3% and 4.5% over five years, showing stable credit quality. Asset quality declined slightly due to the pandemic.

Management efficiency measured by the Interest Income/Total Assets ratio rose from 6.4% in 2019 to 7.09% in 2022, reflecting increased interest income. However, the Net Interest Income / Total Operating Income ratio fell from 0.528 in 2018 to 0.380 in 2022. Non-interest income declined from 1.8% in 2020 to 1.2% in 2022. The Interest Income/Interest Expenses ratio decreased from 2.53 in 2018 to 1.12 in 2022 due to higher deposit costs. Total Revenue/Total Assets grew from 7.45% to 9.87% by 2022.

Earning quality measured by the Net Profit/Total Assets ratio fluctuated from 0.93% in 2018 to 1.42% in 2022. Net Profit/Equity rose from 11.3% in 2018 to 23.0% in 2022. The bank's earnings quality improved over time after a decline in 2020.

Liquidity measured by the Financial Assets/ST Debt ratio increased from 5.2 in 2018 to 8.2 in 2019, then declined to 6 in 2022. Although liquidity decreased, the bank retained sufficient capacity to cover short-term liabilities.

The Commercial Bank of Ethiopia entered the pandemic years with a very good capital adequacy ratio. Investment in securities, loans, and loan loss provision was stable, with minor ups and downs during the period under study. The bank's profitability ratios improved over time after a decline in 2020. Management kept interest margins steady except for the Interest Income /Interest Expense ratio.

The reduction in policy rates supported the management team's efforts to stabilise margins and profitability because banks make capital gains from securities portfolios when interest rates fall.

As presented in Table 10, Awash International Bank's capital adequacy ratio, calculated by dividing total capital by risk-weighted assets, improved from 13% in 2018 to 17% in 2022 and fluctuated just over the 8% minimum requirement set by BASEL II.

Table 10: Awash International Bank's ratios

Financial ratios	**2018**	**2019**	**2020**	**2021**	**2022**
Capital Adequacy Ratios					
Total Shareholder's Equity / Total Assets	11.7%	12.9%	13.4%	12.3%	11.4%
Capital Adequacy Ratios	13%	12%	14%	15%	17%
Asset Quality Ratios					
Financial Asset (net) /Total Asset	36.5%	31.1%	30.7%	27.4%	24.9%
Total Loans / Total Assets	56.6%	63.3%	64.2%	68%	70.5%
Total Loans / Total Deposit	38.2%	36.5%	39.2%	37.8%	36.9%
Loan Provisions / Total Loans	0.3%	1.9%	1.3%	1.5%	3%
Fixed Assets / Total Assets	4.5%	3.4%	3.3%	2.6%	2.5%
Change % in Total Assets	38%	35%	20%	26%	42%
Liquidity Ratios					
Financial Assets / ST Debt & Current Portion LT Debt	3.3	3.6	3.5	3.4	3.35
Profitability Ratios					
Net Profit (Loss) for the Period / Total Assets	2.7%	3.2%	2.9%	3.7%	4%
Net Profit (Loss) for the Period / Equity	23%	25.2%	21.6%	30.5%	35.6%
Efficiency Ratios					
Interest Income / Total Assets	7.6%	8%	8.8%	7.7%	7.8%
Net Interest Income / Total Operating Income	2.7	2.0	2.2	2.3	2.8
Non-interest Income (Net) /Total Assets	2.9%	1.8%	1.7%	2.0%	2.7%
Interest Income / Interest Expense	2.82	2.83	3.0	3.01	3.2
Total Revenue / Total Asset	4.7%	4.3%	4.6%	4.5%	5.3%

Asset quality measured by the Financial Asset/Total Asset ratio dropped from 36.5% in 2018 to 24.9% in 2022. Total Loans/Total Assets ratio increased steadily from 56.6% in 2018 to 70.5% in 2022. The Loan Loss Provisions/Total Loans ratio rose significantly from 0.3% in 2018 to 3% in 2022. Fixed Assets/Total Assets decreased from 4.5% in 2018 to 2.5% in 2022, indicating the bank's focus on loans over financial assets post-pandemic, while asset size grew alongside loan increases.

Management efficiency measured by the Interest Income/Total Assets ratio increased from 7.6% in 2018 to 8.8% in 2020, then stabilised around 7.7% - 7.8% in 2021-

2022. The Net Interest Income/Total Operating Income ratio fluctuated, reaching 2.7 in 2022. Non-interest income saw a decline from 2.9% in 2018 to 1.7% in 2020, followed by a recovery to 2.7% in 2022. Total Revenue/Total Assets grew from 4.7% in 2018 to 5.3% in 2022. Efficiency ratios remained generally stable, indicating consistent income generation relative to assets.

Earning quality measured by Net Profit/Total Assets fluctuated from 2.7% in 2018 to 4% in 2022, reflecting recovery after the pandemic. The Net Profit/Equity ratio decreased to 21.6% in 2020 and then surged to 35.6% in 2022, reflecting higher profitability post-pandemic driven by increased loans.

Liquidity measured by the Financial Assets/ST Debt ratio increased from 3.6 in 2019 to 3.35 in 2022. The decline in recent years can be attributed to the bank's preference for loans over financial assets.

Awash International Bank entered the pandemic years with a capital adequacy ratio just over the minimum requirement. Investment in securities and loans was stable, with minor ups and downs during the period under study. The bank's profitability ratios improved over time after a decline in 2020. The management was successful at managing banks efficiently.

Table 11: Abyssinia Bank of Ethiopia's ratios

Financial ratios	2018	2019	2020	2021	2022
Capital Adequacy Ratios					
Total Shareholder's Equity / Total Assets	15.9%	14.4%	14.4%	15.1%	12.8%
Capital Adequacy Ratios	13.3%	14.5%	10.7%	9.8%	13.8%
Asset Quality Ratios					
Financial Asset (net) /Total Asset	14.4%	14.9%	11.2%	11.6%	12.4%
Total Loans / Total Assets	56.2%	60.4%	65.5%	73.6%	75.8%
Total Loans / Total Deposit	69.7%	73.8%	78.2%	86.2%	92.9%
Loan Provisions / Total Loans	6.1%	4.4%	5.2%	5%	4%
Fixed Assets / Total Assets	6.1%	5.5%	7.5%	5.5%	3.3%
Change % in Total Assets	34%	22%	44%	43%	43%
Liquidity Ratios					
Financial Assets / ST Debt & Current Portion LT Debt	21	24	28	16	19.8
Profitability Ratios					
Net Profit (Loss) for the Period/Total Assets	1.8%	2%	1.5%	1.3%	2.2%
Net Profit (Loss) for the Period/Equity	13.3%	15.7%	15%	15.5%	22.8%
Efficiency Ratios					
Interest Income / Total Assets	8.5%	8.9%	8.5%	7.5%	9.6%
Net Interest Income / Total Operating Income	0.75	0.71	1.25	0.69	0.82
Non-interest income (net) / Total Assets	1.6%	1.7%	1.3%	2.1%	1.4%
Interest Income / Interest Expense	2.6	2.3	2.7	2.9	3.4
Total Revenue / Total Asset	10.1%	10.6%	9.8%	9.7%	11.0%

As presented in Table 11, Abyssinia Bank of Ethiopia's capital adequacy ratio calculated by dividing total capital by risk-weighted assets ranged from 13.3% in 2018 to 13.8% in 2022, just exceeding regulatory requirements.

Asset quality measured by the Financial Asset/Total Asset ratio fluctuated between 14.4% in 2018 and 12.4% in 2022. The Total Loans/Total Assets ratio grew steadily from 56.2% in 2018 to 75.8% in 2022. The Total Loans/Total Deposits ratio also increased significantly, reaching 92.9% in 2022, indicating potential liquidity challenges. Loan Loss Provisions/Total Loans ratio varied, stabilizing at 3.3% in 2022. Fixed Assets/Total Assets fluctuated, with a notable drop to 3.3% in 2022. Abyssinia's strong loan growth strategy carried potential liquidity risks.

Management efficiency measured by the Interest Income/Total Assets increased from 8.5% in 2018 to 9.6% in 2022. The Net Interest Income/Total Operating Income ratio fluctuated, peaking at 0.811 in 2022. Non-interest Income/Total Assets decreased to 1.4% in 2022. Interest Income/Interest Expenses remained stable,

while Total Revenue / Total Assets rose from 10.1% in 2018 to 11.0% in 2022, reflecting improved efficiency in lending activities and better management of interest expenses.

Earning quality measured by Net Profit/Total Assets increased from 1.8% in 2018 to 2.2% in 2022. The Net Profit/Equity ratio grew from 13.3% to 22.8% over five years, signalling improved profitability, particularly in 2022 due to increased loans.

Liquidity measured by the Financial Assets/ST Debt ratio fluctuated, increasing from 21 in 2018 to 28 in 2020, before decreasing to 19.8 in 2022, reflecting the bank's preference for loan growth over holding financial assets.

Abyssinia Bank entered the pandemic years with a capital adequacy ratio just over the minimum requirement. Investment in securities decreased, and loans increased during the period under study. Due to increased loans, profitability improved, particularly in 2022. Management improved the Interest Income/Interest Expense ratio in parallel with growing loans.

Table 12: Dashen Bank of Ethiopia's ratios

Financial ratios	2018	2019	2020	2021	2022
Capital Adequacy Ratios					
Total Shareholder's Equity / Total Assets	12.9%	12.1%	12.2%	10.7%	12.3%
Capital Adequacy Ratios	13%	12%	16%	10%	12%
Asset Quality Ratios					
Financial Asset (net) /Total Asset	9.1%	8.4%	8.7%	8.8%	9.5%
Total Loans / Total Assets	30%	28%	27%	30%	29%
Total Loans / Total Deposit	38%	36%	31%	31%	37%
Loan Provisions / Total Loans	1.7%	1.9%	2.7%	2.2%	2.5%
Fixed Assets / Total Assets	6.5%	4.5%	5.8%	4.6%	4.2%
Change % in Total Assets	21%	19%	17%	27%	19%
Liquidity Ratios					
Financial Assets / ST Debt & Current Portion LT Debt	14	17	19	12	11
Profitability Ratios					
Net Profit (Loss) for the Period/Total Assets	2.1%	1.8%	2.3%	1.8%	2.5%
Net Profit (Loss) for the Period/Equity	15.8%	14.9%	18.5%	17%	20.2%
Efficiency Ratios					
Interest Income / Total Assets	7.1%	7.7%	8.6%	8.4%	8.4%
Net Interest Income / Total Operating Income	6.6	6.7	7.2	8.1	7.3
Non-interest Income (net) / Total Assets	1.7%	1.8%	2.0%	2.1%	2.3%
Interest Income / Interest Expense	1.9	1.2	2.4	2.7	1.9
Total Revenue / Total Asset	9.2%	9.9%	11.1%	10.9%	11%

As presented in Table 12, Dashen Bank's capital adequacy ratio calculated by dividing total capital by risk-weighted assets ranged from 13% in 2018 to 12% in 2022, just exceeding regulatory requirement.

Asset quality measured by the Financial Asset/Total Asset ratio ranged from 8.4% in 2019 to 9.5% in 2022. The Total Loans/Total Assets ratio decreased from 30% in 2018 to 27% in 2020, then fluctuated between 29% and 30% through 2022. The Loan Loss Provisions/Total Loans ratio peaked at 2.7% in 2020 before declining to 2.5% in 2022. Fixed Assets/Total Assets showed a general decline from 6.5% in 2018 to 4.2% in 2022, reflecting the bank's evolving asset structure. Dashen's loan growth and loan-to-deposit ratios showed improvements post-pandemic.

Management efficiency measured by Interest Income as a percentage of Total Assets increased from 7.1% in 2018 to 8.4% in 2022. The Net Interest Income/Total Operating Income ratio steadily rose from 6.6 in 2018 to 7.3 in 2022. Non-interest Income/Total Assets increased from 1.7% in 2018 to 2.3% in 2022. The Total Revenue/Total Assets ratio fluctuated, peaking at 11.1% in 2020 before stabilising at 10.9% in 2021 and 11% in 2022. The bank showed improved efficiency in generating income relative to assets, with effective interest expense management.

Earning quality measured by the Net Profit/Total Assets ratio remained stable between 1.8% and 2.5% from 2018 to 2022. The Net Profit/Equity ratio increase from 15.8% in 2018 to 20.2% in 2022 signalled improving profitability.

Liquidity measured by the Financial Assets/Short-Term Debt ratio fluctuated between 14 in 2018 and 11 in 2022. While liquidity was strong in 2020 (19 times), it declined, highlighting a need for more cautious liquidity management in recent years.

Dashen Bank's capital adequacy ratio was just over the minimum requirement. Loan-related ratios decreased during the pandemic but returned to normal levels after 2022. We observed an increase in profitability and efficiency ratios with minor ups and downs.

Table 13: Co-operative Bank of Oromia's ratios

Financial ratios	2018	2019	2020	2021	2022
Capital Adequacy Ratios					

Total Shareholder's Equity / Total Assets	10.5%	10.8%	12.5%	12%	10.8%
Capital Adequacy Ratios	13.07%	12.30%	11.5%	11.04%	11.7%
Asset Quality Ratios					
Financial Asset (net) /Total Asset	16.1%	10.7%	12.3%	12.6%	15.8%
Total Loans / Total Assets	53.0%	60.5%	63.5%	65.7%	66.8%
Total Loans / Total Deposit	75.2%	86.0%	88.8%	88.9%	94.3%
Loan Provisions / Total Loans	2.2%	2.6%	2.5%	1.9%	2.0%
Fixed Assets / Total Assets	4.4%	4.4%	5.3%	6.2%	5.0%
Change % in Total Assets	19%	21%	17%	20.5%	20%
Liquidity Ratios					
Financial Assets / ST Debt & Current Portion LT Debt	16	12.2	14.4	14	17
Profitability Ratios					
Net Profit (Loss) for the Period / Total Assets	2.0%	2.1%	2.07%	1.9%	1.6%
Net Profit (Loss) for the Period / Equity	19.0%	19.5%	16.6%	15.9%	15.1%
Efficiency Ratios					
Interest Income / Total Assets	8.0%	8.8%	9.8%	11.6%	9.9%
Net Interest Income / Total Operating Income	0.72	0.75	0.78	0.8	1.2
Non-interest income (net) / Total Assets	1.7%	1.4%	1.3%	1.1%	1.6%
Interest Income / Interest Expense	2.2	2.1	1.9	2.3	2.8
Total Revenue / Total Asset	10.3%	10.6%	11.5%	11.0%	11.8%

As presented in Table 13, COOP's capital adequacy ratio, calculated by dividing total capital by risk-weighted assets, ranged from 10% in 2018 to 10.13%, just exceeding the regulatory requirement (8%) during the pandemic.

Asset quality measured by the Financial Asset/Total Asset ratio decreased from 25% in 2018 to 14.3% in 2022. The Total Loans/Total Assets ratio increased steadily from 49.2% in 2018 to 60.4% in 2022, indicating strong loan growth. The Loans/Deposits ratio rose from 57.9% in 2018 to 71.3% in 2022, with a slight increase in Loan Loss Provisions/Total Loans ratio from 0.52% in 2018 to 0.51% in 2022. The Fixed Assets/Total Assets ratio showed slight fluctuations, increasing from 1.9% in 2018 to 2.2% in 2022. Overall, the asset quality improved with stable growth.

Management efficiency measured by the Interest Income/Total Assets ratio increased from 4.2% in 2019 to 7.0% in 2022, showing effective revenue generation from loans. The Net Interest Income/Total Operating Income ratio saw fluctuations, reaching 7.7% in 2022. The Interest Income/Interest Expenses ratio improved steadily from 2.8 in 2016 to 2.9 in 2022. The Total Revenue/Total Assets ratio increased from 7.1% in 2018 to 8.4% in 2022, indicating effective asset utilisation.

Earning quality measured by the Net Profit/Total Assets showed fluctuations, with a high of 2.2% in 2020 and a recovery of 1.8% in 2022. The Net Profit/Equity ratio decreased slightly from 23% in 2020 to 18% in 2022, but the bank maintained stable profitability, using assets effectively to generate earnings.

Liquidity measured by the Financial Assets/ST Debt ratio fluctuated between 37 in 2018 and 38 in 2022, demonstrating solid liquidity. The bank consistently managed its liquidity well, ensuring it could meet short-term financial obligations.

Co-operative Bank of Oromia's capital adequacy ratio was just over the minimum requirement. We observed that loan loss provision was stable while loans increased during the period under study. The loan loss provision ratio was the lowest among the banks under study. The bank should be good at credit risk management. The management was also successful at managing banks efficiently.

Table 14: Hibret Bank's ratios

Financial ratios	**2018**	**2019**	**2020**	**2021**	**2022**
Capital Adequacy Ratios					
Total Shareholder's Equity / Total Assets	10.5%	10.8%	12.5%	12%	10.8%
Capital Adequacy Ratios	13.07%	12.30%	11.5%	11.04%	11.7%
Asset Quality Ratios					
Financial Asset (net) /Total Asset	16.1%	10.7%	12.3%	12.6%	15.8%
Total Loans / Total Assets	53.0%	60.5%	63.5%	65.7%	66.8%
Total Loans / Total Deposit	75.2%	86.0%	88.8%	88.9%	94.3%
Loan Provisions / Total Loans	2.2%	2.6%	2.5%	1.9%	2.0%
Fixed Assets / Total Assets	4.4%	4.4%	5.3%	6.2%	5.0%

Change % in Total Assets	19%	21%	17%	20.5%	20%
Liquidity Ratios					
Financial Assets / ST Debt & Current Portion LT Debt	16	12.2	14.4	14	17
Profitability Ratios					
Net Profit (Loss) for the Period / Total Assets	2.0%	2.1%	2.07%	1.9%	1.6%
Net Profit (Loss) for the Period / Equity	19.0%	19.5%	16.6%	15.9%	15.1%
Efficiency Ratios					
Interest Income / Total Assets	8.0%	8.8%	9.8%	11.6%	9.9%
Net Interest Income / Total Operating Income	0.72	0.75	0.78	0.8	1.2
Non-interest Income (net) / Total Assets	1.7%	1.4%	1.3%	1.1%	1.6%
Interest Income / Interest Expense	2.2	2.1	1.9	2.3	2.8
Total Revenue / Total Asset	10.3%	10.6%	11.5%	11.0%	11.8%

As presented in Table 14, Hibret Bank's capital adequacy ratio, calculated by dividing total capital by risk-weighted assets, ranged from 13.07% in 2018 to 11.7% in 2022, just exceeding the minimum required by Basel.

Asset quality measured by the Financial Asset/Total Asset ratio decreased from 16.1% in 2018 to 10.7% in 2019, before rising to 15.8% in 2022. The Total Loans/Total Assets ratio steadily increased from 53% in 2018 to 66.8% in 2022, and the Total Loans/Total Deposits ratio surged from 75.2% to 94.3% in the same period. Loan Loss Provisions/Total Loans decreased from 2.6% in 2019 to 2.0% in 2022. The Fixed Assets/Total Assets ratio fluctuated, peaking at 6.2% in 2021.

Management efficiency measured by Interest Income/Total Assets showed fluctuations, increasing from 8.0% in 2018 to 11.6% in 2021, but dropping to 9.9% in 2022. The Net Interest Income/Total Operating Income ratio improved from 0.72 in 2018 to 1.2 in 2022. Non-interest Income/Total Assets declined in 2022 to 2.8%. The Total Revenue/Total Assets ratio was variable, peaking at 11.8% in 2022.

Earning quality measured by the Net Profit/Total Assets fluctuated and declined from 2.0% in 2018 to 1.6% in 2022. The Net Profit/Equity ratio decreased from 19.0% in 2018 to 15.1% in 2022, reflecting a trend of declining profitability.

Liquidity measured by the Financial Assets/ST Debt ratio fluctuated from 16 in 2018 to 17 in 2022, indicating improving liquidity in 2022 after some variation in earlier years.

Hibret Bank's capital adequacy ratio was just over the minimum requirement. Loan loss provision was stable with minor ups and downs while loans increased during the period under study. Profitability ratios slightly decreased during the period under study. The management was successful at managing banks efficiently.

Consequently, the banks in Ethiopia had capital adequacy ratios just over the minimum requirement. This ratio protects a bank from insolvency. Financial organisations with adequate capital reserves cover losses and continue business as usual, even during challenging economic times like the pandemic. The loan loss provision ratios of Ethiopian banks were considered to be at a reasonable and satisfactory level. Loan-related ratios increased with minor ups and downs during the period under study. Profitability ratios declined during the pandemic and then returned to normal in 2022. Three out of six banks improved their interest income to interest expense ratio, while two banks initially increased it before the ratio returned to its original level.

5. Discussion and Conclusion

In this study, the financial performance of commercial banks in Ethiopia and Kenya was analysed using the CAMEL framework (Capital Adequacy, Asset Quality, Management Efficiency, Earnings Quality, and Liquidity) to provide a perspective on commercial banks in East African stock markets. The analysis, conducted on selected banks (six from Ethiopia and six from Kenya), revealed differences in capital structure, asset quality, management efficiency, earnings quality, and liquidity levels.

We observe that banks possess strong capital adequacy ratios to maintain financial stability. However, Kenyan banks have more capital for risk-weighted assets than Ethiopian banks. Moreover, Diamond Trust Bank from Kenya possesses the most substantial capital adequacy ratio. This variation in regional performance aligns with Ab-Rahim et al. (2018) who similarly identified that capital adequacy levels often vary significantly across neighboring countries due to distinct market conditions. In contrast, Abyssinia Bank-Ethiopia has a relatively low capital adequacy ratio, indicating the need to strengthen its capital structure, as also highlighted by Sangmi and Nazir (2010), who found that banks with low capital buffers must reinforce their capital base to maintain financial stability.

In the asset quality assessment, Kenyan banks have higher loan loss provisions for non-performing loans than Ethiopian banks. Abyssinia Bank-Ethiopia has the highest loan loss provision. On the other hand, Co-operative Bank has the lowest loan loss provision. Ethiopian banks improved their loan-related asset quality ratios during the study period. This trend supports the findings of Baral (2025) on asset quality improvements in developing markets. Hibret Bank-Ethiopia has the highest Total Loans/Total Assets and Total Loans/Total Deposits ratios. However, we observe that Kenyan banks' loan-related ratios declined after the pandemic period.

During the pandemic, Kenyan banks' profitability ratios were lower than Ethiopian banks', and Diamond Trust Bank of Kenya's profitability ratios were the weakest. Ethiopia's Awash International Bank and Co-operative Bank of Oromia had the highest profitability ratios.

Kenyan Banks' efficiency ratios were higher than Ethiopian banks' efficiency ratios. KCB Bank's Interest Income to Interest Expense ratio was the highest. However, Absa Bank's Interest Income to Interest Expense ratio was the lowest. The management teams of banks from both countries successfully managed the efficiency ratios. These results support (Qureshi & Siddiqui, 2023) regarding the significant impact of liquidity and earnings quality on overall bank performance.

In addition, Kenya's low interest rate policy during the pandemic (2020-2021) contributed to economic recovery by increasing commercial banks' lending activities. However, the rise in interest rates to 13% in 2024 may increase credit costs, negatively affecting banks' loan volumes and profitability (Gertler, Mark, & Karadi, 2015). On the other hand, Ethiopia's long-standing policy of keeping interest rates stable at 7% has provided a stable financial environment for commercial banks. However, an inflation-adjusted interest rate policy may lead to future fluctuations in banks' interest income (Mehmood & Luca, 2023). This situation highlights the different risks and opportunities in the commercial banking sector of both countries, demonstrating the sensitivity of banks to interest rate policies.

We recommend that banks develop strategies to improve capital adequacy, refine their credit assessment processes to enhance asset quality, and implement policies to increase management efficiency. Regular stress tests should be conducted to strengthen liquidity management, and measures should be taken to maintain financial stability. For future research, expanding the scope of the study by including more banks or additional countries in the region could provide broader comparative insights. Furthermore, researchers may explore how digitalization and fintech adoption influence financial stability, asset quality, and overall banking sector performance, as these technological developments increasingly affect operational efficiency and risk management practices.

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