# KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY 

## COMPARATIVE ANALYSIS OF FINANCIAL PERFORMANCE OF THE

 THREE STATE OWNED BANKS IN GHANAKWADWO ASIAMAH SIKA-DAPAAH

DISSERTATION SUMITTED TO KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY, COLLEGE OF HUMANITIES AND SOCIAL SCIENCES, DEPARTMENT OF ECONOMICS, IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE AWARD OF MASTER OF SCIENCE IN ECONOMICS

## DECLARATION

## Candidate's Declaration

I hereby declare that this dissertation is the result of my own original work and that no part of it has been presented for another degree in this university or elsewhere.

(PG2729714)
Signature
Date

## Certified by:

Mr. Emmanuel Buabeng
(Supervisor)
Signature Date


## Certified by:

Dr. Daniel Sakyi
(Internal Examiner)


## Certified by:

Dr. Yusif Hadrat
(Head of Department)


#### Abstract

The study examined the financial performance of GCB Bank Limited, National Investment Bank Limited (NIB LTD.), and Agricultural Development Bank Limited (ADB) from 2004 to 2014 using financial ratios and indicators. Annual data from financial reports and statements were employed to compute all performance indicators and ratios. The results showed that GCB Bank and ADB were more profitable compared with NIB. All the three banks were more effective and sound in their use of deposits. The results further showed that GCB maintained good books among all the three banks. All the banks were sufficient in terms of their minimum capital adequacy ratio of $10 \%$ except NIB which had $8.66 \%$ in 2008. Recommendations offered in the study were that the banks should be creative and innovative in asset and product creation to be able to increase their total income. They should also try and reduce their cost of operations whiles increasing their total income. Not all, these banks should have a strong and well-resourced credit risk department and a loan monitoring and rigorous loan recovery team. Finally, ADB and NIB should be listed on Ghana Stock Exchange to enable them raise enough capital and dilute the percentage of the governmentes shareholding.


## ACKNOWLEDGEMENTS

I am most grateful to God almighty for His immense grace and blessings. I am particularly grateful to Mr. Emmanuel Buabeng, my supervisor for his guidance, counseling and contributions towards the success of this work.

I wish to sincerely thank Ms. Naa Lamiley Lamptey (Branch Manager, ADB Weija Branch) and Samuel Kweku Coleman (ADB Corporate Affairs Department) for their support and assistance towards this dissertation. I am also indebted to Mr. Joseph Kojo Otoo and Mr. and Mrs. Ekow-Hayford Jnr for their assistance in seeing me through this work. I wish to render my heartfelt thanks to Mr and Mrs. Debrah-Affoh,

Mr. Henry Agyei Obimpeh, Mr. Emmanuel Atta Acquah, Aziz Zul-Hac and Ms. Anita Mensah for their untiring efforts, support, concern and encouragement to me towards the completion of my postgraduate studies and this dissertation.

I ascribe special appreciation to Mr. Peter Fraizer Owusu-Kusi (Snr Manager, Golden Pride Savings and Loans Ltd.) and Kwaku Amoah Karikari for their great love, care, understanding, patience, encouragement, contributions and prayers towards the successful completion of this dissertation and my postgraduate education.

Worthy of praise is my family. My special appreciation goes to my wife Linda SikaDapaah and the Dapaah-Siakwan and Ansah Amadi families for their love, care, support and encouragement.

## DEDICATION

This dissertation is dedicated to my Dear wife Linda Sika-Dapaah and my late mother-in-law Mrs. Florence Ansah Amadi.


## TABLE OF CONTENTS

Content Page
DECLARATION ..... ii
ABSTRACT ..... iii
ACKNOWLEDGEMENTS ..... iv
DEDICATION ..... v
TABLE OF CONTENTS ..... vi
LIST OF TABLES ..... ix
CHAPTER ONE: INTRODUCTION ..... 1
1.1 Background of the Study ..... 1
1.2 Statement of the Problem ..... 31.3 Objectives of the Study4
1.4 Research Questions

$\qquad$1.5 Scope of the Study5
1.6 Significance of the Study ..... 5
1.7 Organization of the Thesis ..... 5
CHAPTER TWO: LITERATURE REVIEW
......................................................... 7 ..... 7
2.1 Introduction7
2.2 Financial Statement Analysis - Definition ..... 7
2.3 Components of Financial Statements ..... 8
2.4 Users and uses of Financial Statements ..... 10
2.5 Performance Measurement and Analysis. ..... 12
2.6 Ratio Analysis13
2.7 Categories of Ratios ..... 14
2.8 Key uses of Financial Ratios ..... 14
2.9 Limitations of Financial Ratios ..... 15
2.10 Empirical Review ..... 15
CHAPTER THREE: METHODOLOGY ..... 17
3.0 Introduction17
3.1 Research Design ..... 17
3.2 Total Population and Sample Size ..... 17
3.3 Study Institutions ..... 17
3.3.1 GCB Bank Limited ..... 17
3.3.1.1 Products and Brands ..... 18
3.3.2 National Investment Bank Limited ..... 19
3.3.2.1 Products and Brands ..... 19
3.3.3 Agricultural Development Bank (ADB) Limited ..... 21
3.3.3.1 Products and Brands ..... 21
3.4 Sources of Data ..... 21
3.5 Analytical Approach and Tools ..... 21
3.5.1 Ratio Analysis
$\qquad$22
3.5.2 Profitability Ratios ..... 22
3.5.2.1 Return on Equity (ROE) ..... 23
3.5.2.2 Profit after Tax Margin ..... 23
3.5.2.3 Return on Assets (ROA) ..... 23
3.5.2.4 Cost to Income Ratio ..... 24
3.5.2.6 Non-Interest Income to Earning Assets ..... 24
3.5.3 Liquidity Ratios ..... 25
3.5.3.1 Liquid Assets to Total Deposits ..... 25
3.5.3.2 Liquid Assets to Total Assets ..... 25
3.5.3.3 Liquid Asset to Earning Assets ..... 26
3.5.3.4 Net loans to Total Deposit Ratio ..... 26
3.5.3.5 Net Loans to Total Assets ..... 26
3.5.4.1 Non-Performing Loans to Total Loans ..... 27
3.5.4.2 Impairment Charges to Gross Loans ..... 27
3.5.4.3 Loan Portfolio Profitability ..... 27
3.5.5 Capital Structure ..... 28
3.5.5.1 Capital Adequacy Ratio (CAR) ..... 28
3.6 Tools ..... 28
CHAPTER FOUR: RESULTS AND DISCUSSION ..... 29
4.0 Introduction29
4.1 Profitability and Efficiency Ratios ..... 29
4.1.1 Return on Equity ..... 29
4.1.2 Profit after Tax Margin ..... 31
4.1.3 Return on Assets ..... 33
4.1.4 Cost Income Ratio ..... 34
4.1.5 Non-Interest Income to Operating Income ..... 36
4.1.6 Non-Interest Income to Earning Assets ..... 37
4.2 Liquidity Ratios ..... 39
4.2.1 Liquid Asset to Total Deposit ..... 39
4.2.2 Liquid Asset to Total Asset. ..... 41
4.2.3 Liquid Asset to Earning Asset ..... 42
4.2.4 Net Loans to Total Deposit ..... 44
4.3 Portfolio/Credit Quality Ratios ..... 46
4.3.1 Non-Performing Loans to Total Loans ..... 46
4.3.2 Impairment Charge to Gross Loans ..... 48
4.3.3 Loan Portfolio Profitability ..... 50
4.4 Capital Structure ..... 52
4.4.1 Capital Adequacy Ratio ..... 52
CHAPTER FIVE: SUMMARY OF THE FINDINGS, CONCLUSIONS AND RECOMMENDATION ..... 55
5.0 Introduction55
5.1 Summary of Findings55
5.2 Recommendations
58
5.3 Conclusions
$\qquad$59
REFERENCES ..... 61
APPENDICES ..... 67
APPENDIX A67
APPENDIX B
$\qquad$71APPENDIX C
$\qquad$72
APPENDIX D
$\qquad$
76
APPENDIX E ..... 78
APPENDIX F F.
81 LIST OF TABLES
Table Page
3.3.1: NIB Products and Brands ..... 20
4.1: Return on Equity ..... 30
4.3: Profit after Tax Margin ..... 32
4.4: Hotelling Mean Test Results for Profit after Tax Margin ..... 32
4.5: Return on Assets ..... 33
4.6: Hotelling Mean Test Results for Return on Assets (ROA) ..... 33
4.7: Cost Income Ratio ..... 35
4.8: Hotelling Mean Test Results for Cost Income Ratio (CIR) ..... 35
4.9: Non-Interest Income to Operating Income ..... 36
4.10: Hotelling Mean Test Results for Non-Interest Income/Operating Income ..... 37
4.11: Non-Interest Income to Earning Assets ..... 38
4.12: Hotelling Mean Test Results for Non-Interest Income to Earning Assets ..... 38
4.13: Liquid Asset to Total Deposit ..... 40
4.14: Hotelling Mean Test Results for Liquid Asset to Total Deposit ..... 40
4.15: Liquid Asset to Total Asset ..... 41
4.16: Hotelling Mean Test Results for Liquid Asset to Total Assets ..... 42
4.17: Liquid Asset to Earning Asset ..... 43
4.18: Hotelling Mean Test Results for Liquid Asset to Earning Asset ..... 43
4.19: Net Loans to Total Deposit ..... 45
4.20: Hotelling Mean Test Results for Net Loans to Total Deposit ..... 45
4.21: Non-Performing Loans to Total Loans ..... 47
4.22: Hotelling Mean Test Results for Non-Performing Loans to Total Loans ..... 47
4.23: Impairment Charge to Gross Loans ..... 49
4.24: Hotelling Mean Test Results for Impairment Charge to Gross Loans ..... 49
4.25: Loan Portfolio Profitability
$\qquad$
4.26: Hotelling Mean Test Results for Loan Portfolio Profitability ..... 51
4.27: Capital Adequacy Ratio ..... 53
4.28: Hotelling Mean Test Results for Capital Adequacy Ratio ..... 53

SANE

## CHAPTER ONE

## INTRODUCTION

### 1.1 Background of the Study

The Banking sector is supposed to play an active role in sustaining financial markets and economic growth and development of a country (Bank of Ghana Act 2002, Act
612). This is evidenced in the Bank of Ghana Act (2002), Act 612 Section 3 Subsection 1 and 2 which states the primary function of the Central Bank is maintaining a stable price level in the economy and also supporting the general economic policies of government, to promote growth in the economy and effectively and efficiently create a conducive atmosphere for the operations of the banking and credit system devoid of any intervention from government or any other authority. The sectors ability to positively impact on economic growth and development depends on an effective banking system. In view of this, the British Colonial administration and Government of Ghana established banks to aid in the economic development of the then Gold Coast and now Ghana.(Osakunor, 2009)

Standard Chartered bank, formally known as Bank of British West Africa started operation in Ghana in 1885 with its first branch in Accra. Its success story paved way for other banks to troop into the then Gold Coast; Colonial Bank in 1918, the National Bank of South Africa and Barclays Bank. (www.bog.gov.gh)

## SANE

Until the establishment of Ghana Commercial Bank in 1953, the period between 1920 and 1950 had only Standard Chartered and Barclays Bank in operation and this first indigenous bank was to curtail the overly control of the two foreign banks. The establishment of the Bank of Ghana followed in 1957 to manage all banks and be in
charge of the currency. The banking sector expanded and in 1974, the country saw the establishment of Development Financial Institutions (DFI) to render financial services apart from commercial banking such as development/ investment, agriculture and merchant. These banks were National Investment Bank, Agricultural Development

Bank, Merchant Bank, Social Security Bank, Bank for Housing and Construction, Cooperative Bank Ghana and National Savings and Credit Bank. The operations of these banks were through mobilization of deposit, support from government and foreign banks through loans in commercial and development banking services to facilitate economic growth and development. (Brownbridge et al, 2014)

With the passage of time, most of these banks have been privatized and others have gone into bankruptcy. Among the reasons alluded for the collapse and privatization of some of these banks were poor profitability performance, poor liquidity performance and poor credit quality/ performance (Prof. Omane-Antwi, 2013). In Ghana currently, only GCB Bank Limited, National Investment Bank Limited (NIB) and Agricultural Development Bank Limited (ADB) are owned by the state.

With the introduction of financial sector adjustment programme in 1988 (FINSAP 19881991), GCB Bank, NIB and ADB have experienced various changes in terms of regulations and technology from the central bank, influx of foreign and local banks, technological advancement, high cost of funds and the depreciation of the cedi.

## SANE

Notwithstanding, there have been an increase in cost and a growing competition for these banks and this has affected their financial performances. According to Bragg (2012), financial performance is the level of performance of a business over a specified period of time, expressed in terms of overall profits and losses during that time.

Evaluating the financial performance of a business helps directors, managers, owners, prospective investors and the public at large to access the outcomes of the strategies employed by the business in terms of their monetary value. Financial analysis is a way of presenting the overall financial performance of a financial institution in a structured and a logical way. Conclusions about the health and performance of a company in terms of finances can only be reached after careful and critical analyses of the data, explanatory notes and supporting reports presented in annual accounts or financial statements together with and in the light of other relevant environmental factors. The results of such in-depth analyses reveal the performance of the companies in question over given time spans and within their industry of operation as well as in the general economy. (Bragg, 2012)

In Ghana, a section of Act 179, mandates directors of companies (private or public) to circulate to all members "financial statements not later than eighteen months after incorporation and subsequently once at least in every calendar year at intervals of not more than fifteen months".( Ghana Company Code 1963, Act 179). The sections specifically requires income statement, report by directors and a report by auditors in accordance with specific sections of the Act to be included in the annual report.

### 1.2 Statement of the Problem

A bank operating soundly financially is a sign of good standings not only to depositors but also to shareholders, employees and the whole economy. In line with this efforts have been put in place to efficiently and effectively measure the financial position of the bank. (Din Sangmi, 2010). The stability of banks as a whole in the economy depends on better financial performance. Better financial performance level has tendency to absorb risks and shocks that banks can face. Better financial performance depends on the
liquidity position, profitability performance, quality of credit and capital adequacy of the bank. The study is inspired by the fact that measuring financial performance is an important tool for financial institutions wishing to carry out their business successfully in the face of increasing competition in the financial markets. In his work on contemporary studies on corporate governance in 2013, Prof. Omane-Antwi pointed out that most of the state owned banks in Ghana that went into bankruptcy and privation had problems with poor profitability, poor liquidity positions and poor credit quality/performance. In this time of competitiveness in the Ghanaian banking industry, how are the remaining state owned banks in Ghana performing in terms of profitability, liquidity, credit quality and capital adequacy. It is against this background that the following objectives have been formulated

### 1.3 Objectives of the Study

The general objective of the study was to analyze and compare financial performance of state established banks in Ghana.

Specifically, the study was intended to:

1. Evaluate and compare the profitability performance of GCB Bank, National Investment Bank Limited and Agricultural Development Bank Limited from

2004 to 2014.
2. Analyze liquidity performance of these Banks between 2004 and 2014.
3. Assess credit quality of the Banks from 2004 to 2014.
4. Evaluate if the banks meet the regulated minimum capital adequacy ratio.

### 1.4 Research Questions

The following research questions guided the study;

1. What are the profitability performance of GCB, NIB and ADB between2004 and 2014?
2. How are the liquidity positions of the banks from 2004 to 2014 ?
3. What are credit quality of GCB, NIB and ADB?
4. Do the banks meet the regulated minimum capital adequacy ratio?

### 1.5 Scope of the Study

The study covers all the state owned banks currently operating in Ghana. There are three state owned banks in Ghana and these are GCB Bank, National Investment Bank Limited and Agricultural Development Bank Limited.

### 1.6 Significance of the Study

The successful completion of the study will help determine the effective and efficient way banks do transform their expensive inputs into various financial products and services. Moreover, findings will help determine the capabilities, survival and prosperity of these Banks from other competitors in the country. Additionally, findings will help in the identification of the unique strengths and weaknesses of these Banks which plays a key role in their profitability, liquidity, credit quality and capital adequacy.

### 1.7 Organization of the Thesis

The thesis was organized in five main chapters. Chapter one focused on the background of the study, statement of the problem and objectives of the study. It also looked at the research questions and significance of the study.

The second chapter was review of the necessary related literature on the concept and subject matter of the topic. These included the concept of Financial Performance, Financial Ratios etc. Chapter three was centered on the methodology, this was made up of research design, study area, study population, sample size, sources of data, data collection techniques, data processing and analysis. Discussions, analysis and interpretations of the findings of the study were the fourth chapter. The fifth chapter was devoted to the summary, conclusions and recommendations of the study as well as areas for further research.

## CHAPTER TWO

## LITERATURE REVIEW

### 2.1 Introduction

The first part of this chapter looks at available literature on the main subject areas of the study i.e. financial statements and their analysis and the second part centered on financial performance measurement tools (ratios and trend analysis). They covered theories, definitions and analysis of the advantages and disadvantages of the various techniques.

### 2.2 Financial Statement Analysis - Definition

According to Williams et al (2006) financial statement analysis involves the assessment of a company"s accounting information to forecast risk and determine potential returns on the basis for economic decision making.

Larson et al (1999) defined financial statement analysis as "the application of analytical tools to general financial statements and related data for making business decisions" (p. 774). Their explanation was that it leads to a higher degree of certainty since it reduces or minimizes reliance on guesses and intuition. They further referred to them as reports on the conditions in an organization and their performances financially.

According to Pinches (1994), the balance sheet of a firm reports not only its assets but also, liabilities and stockholders" equity whereas the income statement of the firm presents operations in a given period of time usually within a year. These reports usually gives information about the future cash flows and this analysis is pointed at
understanding the trends that explain the risk, timing and magnitude of the future cash flows of the firm.

Records that give indication of an individual organization"s or businesses" financial status according to www.wisegeek.com is known as financial statement. A famous quote by Abraham Briloff in June 1999 that "Financial statements are like fine perfume: to be sniffed but not swallowed." $h t t p: / /$ www.investorhome.com/company, is one of the many calls for critical analysis of financial statements. This call has been vindicated by a number of corporate collapses of giant multinationals whose financial statements painted bright pictures until their unexpected demise. Enron and Worldcom are two classic cases of companies whose financial reports were
significantly at variance with operational realities on the ground.

### 2.3 Components of Financial Statements

Many authors have defined components of financial statements to encompass the financial statement of a firm, retained earnings and cash flow as well as income statement and a statement that gives the financial position of a firm. Investorwords list and defines four financial statements as follows:

- Income statement- An accounting of sales, expenses and net profit for a given period
- Statement of retained earnings- A document that reflects the amount of income received for the fiscal year.
- Statement of financial position- It includes assets, liabilities and net worth of company in a given period of time written in the form of a quantitative summary. A quantitative summary of a company"s financial condition at a point in time,
including assets, liabilities and net worth. The assets are displayed in the first of the balance sheet whereas the liabilities and shareholder"s equity are presented in the second part.
- Cash flow statement- A summary of a company"s cash receipts and payments over a given period.


Wild (2005) in his work explains income statement as descriptions of a company"s revenue and expenses and explains statement of retained earnings as changes in the retained earnings from net income and dividends within a time frame. He also explains statement of alfinancial position as a description of the financial position in terms of assets and liabilities in a given period and finally defines cash flow statement as receipts and cash outflows over a period of time. (p.17)

A more general definition covers the entire published accounts i.e. directors" and auditors" reports, audit committee reports, income statement, statement of financial position, statement of retained earnings, cash flow statements and notes to the accounts. Brigham et al (1999) submit that there are two types of information given in annual reports - verbal statements, describing the results from the firms operation over the past year and focuses on developing future operations.

The other type is a written report presented in four basic financial statements namely the income statement, statement of financial position, retained earnings statement and the statement of changes in financial position. Taken together, the financial statements report actual happenings in terms of earnings and dividends the verbal information explain why things turned out the way they did. Brigham et al (1999), further contended
that the real value of financial statements lies in the fact that they are most useful in predicting future earnings of the firm, dividends and riskiness of cash inflows.

Williams et al (2006) draw a distinction between classified financial statements in which items with certain characteristics are placed together in a group and comparative financial statements which show amounts for several periods side by side in a vertical column. Similarly Larson et al (1999) give two types of financial statements: a) general purpose financial statements, and b) comparative financial statements. They explain general purpose financial statements to include income statement, statement of financial position, and statement of changes in shareholders" funds, cash flow statement and notes related to the statements. According to them, comparative financial statements place amounts for two or more successive periods alongside each other for easy comparison.

In this study, „financial statements" refer to statement of financial position, income statement and retained earnings statements and cash flow statement. Analysis of financial statements involves a careful and critical investigation of the aforementioned reports to establish the financial health, comparable risks and returns of the selected banks.

### 2.4 Users and uses of Financial Statements

According to Larson et al (1999), financial statements are useful in revealing a snapshot of an organisation"s financial health and performance to decision makers, such as lenders, investors, managers, suppliers and customers. Dransfield (2002) outlines the following users and uses of financial statements:

Investors - individuals or institutions that buy shares in companies and become part owners. These people use financial statement to ascertain the commercial viability of the company they wants to invest in.

Employees - individuals or groups of individuals such as trade unions use financial statements to determine their job security as well as the prospects for improvement in their employment terms.

Lenders - banks, finance houses and other credit agencies study financial reports of companies in determining their credit worthiness as well as growth potentials.

Suppliers and other Creditors - ability of clients to pay for supplies in good time is a major determinant in the granting of credit. Suppliers are therefore very mindful of this in setting their supply and credit policies for their clients.

Customers - continuity of customers" business is largely dependent on the existence and continuity of their suppliers" business. For this reason customers will study
critically, available financial reports of suppliers to ascertain the sustainability of their businesses.

Government - besides the tax assessment needs, governments and their agencies study critically financial statements especially of key companies which help drive and accelerate economic developments.

## SANE

Public - the wider public use financial statements for research, assessment of a company"s contribution to both the immediate and larger community

Journalists - financial and business journalists use such reports to ascertain the health of specific sectors in an economy and the economy as a whole. Through publication of their findings, company promoters and investors at large obtain an indication of viable business avenues.

In spite of the usefulness of financial statements, they do not always provide answers to the many questions of stakeholders. In some cases answers provided may not reflect the reality for a number of reasons.

The desire of directors to present favourable picture of their companies and by inference their stewardship may lead to disregard for the principles/ concepts of accrual, prudence and conservatism. In extreme cases this may lead to deliberate misinformation. Secondly, financial statements may just turn to be only an approximation of reality since it reports are mostly selective of economic events. It also employs the use of noncomparable accounting methods and estimates and as such may tend to lag reality.

### 2.5 Performance Measurement and Analysis

According to investorwords.com, performance measurements quantitatively give important indications of a company"s products, services, the processes that produce them and the results from these processes. Performance measurements show;

How well a company is doing

- If a company is meeting its goals
- If customers are satisfied
- If processes are in statistical control
- If and where improvements are necessary
- What the future holds for the company

They are mostly tools that aim in understanding, managing and improving what organizations do, providing information essential in making intelligent decisions about a company. Two key financial performance measurement tools - ratio analysis and trend analysis will be discussed in this section.

### 2.6 Ratio Analysis

Wild (2005) defines ratio analysis as an expression of a mathematical relationship between quantities expressed as percent (e.g. 25\%) ( 2.5 times) or proportion (e.g. 2.5 to 1). He further contends that the significance of ratios can only be appreciated when referred to on occasionally as unequal relations. According to investorwords.com, ratio analysis is the study and interpretation of the relationship between various financial variables by investors and lenders (www.inverstorwords.com). Answers.com defined ratio analysis as the quantitative relation between two different amounts showing the number of times one value is contained within the other (www.answers.com).

Financial ratio analysis is the calculation and comparison of ratios which are derived from the information in a company"s financial statements. The level and historical trends of these ratios give indications of a company"s financial condition, its operations, management efficiencies, prospects and attractiveness on an investment avenue.

Financial ratio is calculated from one or more pieces of information from a company"s financial statements. For example, the "gross margin" is the gross profit from operations divided by the total sales or revenues of a company, expressed in percentage terms. In isolation, a financial ratio is a useless piece of information. In context, however, a financial ratio can give a financial analysis an excellent picture of a company"s situation and trends that are developing.

A ratio gains utility by comparison to other data and standards. For example, a gross margin, which is the gross profit from operations divided by the total sales or revenues of a company of $15 \%$. However, if it is known that the company"s competitors have profit margins of $10 \%$, the company will be viewed more favourably within its given industry. Similarly, a consistent upward historical trend over a considerable period will be an indication of the effectiveness of management"s business policies and strategies.

### 2.7 Categories of Ratios

Financial ratio analysis groups the ratios into categories which differentiate elements of a company"s finances and operations. Like the ratios themselves, groupings or categories tend to vary widely depending on who is analysing and what the objective of the analysis is.

As explained by Wild (2005), financial statement analysis focuses on one or more elements of a company"s financial condition or performance and describes liquidity and efficiency, solvency, profitability and market as the four building blocks of financial statement. Brigham et al (1999) categorised financial ratios into liquidity, asset management, debt management, profitability and market value ratios.

In this study, four main groups or categories of ratios were reviewed. They are profitability, liquidity, credit quality and capital adequacy ratios. These ratios are examined in details one after the other in chapter three.

### 2.8 Key uses of Financial Ratios

Brown et al (2000) stated that financial ratios help to:

- Structure analysis
- Show the connection between activities and performance
- Compare past performance with the current and project the future
- Benchmark with industry
- Adjust for size differences


### 2.9 Limitations of Financial Ratios

The following limitations were submitted by Brown et al (2000):

- Published industry averages are only guidelines
- Accounting practices differ across firms
- Industry ratios may not be desirable targets
- Seasonality affect ratios


### 2.10 Empirical Review

A work done by Kumbirai et al on "A Financial Ratio Analysis of Commercial Bank Performance in South Africa" has been reviewed to provide an insight into the financial performance of banks. Using descriptive financial ratios as a measure of bank profitability, liquidity and credit quality of five commercial banks in South Africa from 2005 to 2009. The study revealed that the overall performance of banks in South Africa improved in terms of its profitability and liquidity in the period under review and this was partly responsible for the nation"s preparations for the World Cup. An increase in the operating cost of banks and the global financial crisis explained the deterioration in in profitability in the period 2008 to 2009.

This research also uses financial ratio analysis but the period of study between 2004 and 2014 is more widely and revealing as compared to the research conducted by Kumbarai et al used five year period.

Overview of the Outreach and Financial Performance of Microfinance Institutions (MFI) in Africa by Brown et al, April 2005 Employing 127 Microfinance Institutions in Africa on how does performance vary among African MFIs and the study revealed that the overall financial performance of MFIs in Africa lags behind other global regions. In measuring the financial performance, the study used Return on Asset (ROA) as a measure but this research not only uses ROA but also uses other financial ratios to measure the financial performance of state owned banks in Ghana.

A research done by Kiyota Hiroyuki (2011), on Efficiency of Commercial Banks in SubSaharan Africa: A Comparative Analysis of Domestic and Foreign Banks. The study did a comparative analysis of profit efficiency and cost inefficiency of commercial banks in 29 sub-Saharan African countries. The study revealed that the foreign banks in terms of profit efficiency outperform domestic banks. In terms of banks size, the smaller banks tend to be more efficient compared to the medium or relatively large banks. Credence could be given to the researcher for the use of Tobit regression to assess the impact of environmental factors on the efficiency of commercial banks.

This research continues to add to knowledge by conducting a comparative analysis of the profitability of the three state owned banks in Ghana to show happenings in the banking sector in the country.

## CHAPTER THREE

## METHODOLOGY

### 3.0 Introduction

This chapter dilated on the study design, study area, population and sample size used and sampling procedure, sources of data, data collection and techniques, data processing and analysis.

### 3.1 Research Design

This research adopted descriptive financial ratio analysis in describing, measuring and analyzing the financial performance of GCB Bank, NIB and ADB between 2004 and 2014. Qualitative and Quantitative research techniques were used to conduct the study. The research relied solely on secondary data as described in detail under the "sources of data" section.

### 3.2 Total Population and Sample Size

Total population of the study was GCB Bank, NIB and ADB. The study evaluated financial performance of these banks between 2004 and 2014.

### 3.3 Study Institutions

### 3.3.1 GCB Bank Limited

GCB bank originally known as the Bank of the Gold Coast was established in 1953 to render banking services in Ghana for socio-economic development. Primarily, the institution was targeted at traders, farmers and business people who could not receive financial support from the foreign banks in operation that time.

GCB Bank started in 1953 as the Bank of the Gold Coast to provide banking services to the emerging nation for socio-economic development. The Bank was to provide special attention to Ghanaian traders, business people and farmers who could not elicit support from the expatriate banks. The mandate of the bank was directed at commercial banking after the nation attained independence and the Central Banks establishment. From Ghana Commercial Bank Limited to GCB Bank now has
branches across all the regions of the country. With over 150 branches in the country and 11 agencies, the bank after 1996 is $21.36 \%$ owned by government and $78.64 \%$ owned by individual holdings and institutions.

Beginning with a staff of 27, the bank as at December 2014 could boast of 2,101 staff which is so remarkable with professionals of various disciplines involved. From a customer base in the early years of operation of mainly small Ghanaian traders, the bank now has a broader customer base with salaried workers through small and medium scale entrepreneurs to government institutions and corporate bodies.

### 3.3.1.1 Products and Brands

GCB Bank offers a variety of banking products. Current/Savings Account, Link2Home for Ghanaians abroad, loans and overdraft and a lot of investment packages as fixed deposit and Treasury bill for the specific need of the customers. The bank is not left out in the financial innovations and so it operates internet banking,

SmartPay, GCB Inland Express Money Transfer, International Money Remittance, GCB Kidistar Account and MasterCard. These innovations have impacted on profits and increasing the value of shareholdings which makes the bank the widest networked in the
country. All these have been done to increase profits and enhance shareholder value.
Today the bank can boast of being the widest networked Bank in Ghana.
(www.gcbbank.com.gh)

### 3.3.2 National Investment Bank Limited

National Investment Bank Limited (NIB LTD.) was established by an Act of Parliament (Act 163) and was incorporated on March 22, 1963.The bank which traces its history from the Gold Coast Industrial Development Corporation (GCIDC) became the first development bank in the country. The bank was enabled to set up joint ventures and it has up to date over hundreds of such joint enterprises.

Most of the major existing industries including Nestle Ghana Limied, Novetel Hotel, Kabel Metal Company Limited, Aluworks, Total Ghana Limited, CDH Company Limited, Metro Mass Transit Company Limited, Benso Oil Palm Plantation benefited from NIB"s equity participation or funding.

NIB has given rise to Agricultural Development Bank from the agricultural department of the bank, Merchant Bank to concentrate on trade finance. Originally not a deposit taking bank, NIB in 1980 offered commercial banking in order to complement its development banking.

The bank which is $87 \%$ owned by the government of Ghana and $13 \%$ by individual holdings and institutions currently has forty branches and two agencies in the country and operates as a universal bank but focuses on development and commercial banking activities with $70 \%$ of the Banks"s portfolio made up of loans to the Ghanaian private sector. They are also one of the designated financial institutions which sources funds
from Export Trade, Agriculture and Industrial Development Fund (EDAIF) for on lending to exporters as Term and Working capital loans.

### 3.3.2.1 Products and Brands

NIB offers a wide range of products and services to its customers and the general public. Table 1 shows products and services of NIB:

Table 3.3.1: NIB Products and Brands



- GHACEM Guarantee $\square$ National Lotteries $\square$ Contingent Liabilities
- Trade/Supplies Guarantee
(Redemption of winning
$\square$ Fund Management coupons)

Source: www.nibghana.net

### 3.3.3 Agricultural Development Bank (ADB) Limited

Agricultural Development Bank which was formally known as Agricultural Credit and Co-operative Bank, it was established by an Act of Parliament in 1965 to meet the banking needs of the Ghanaian agricultural sector in a profitable manner. ADB which is $51.83 \%$ owned by government of Ghana and $48.17 \%$ owned by the Bank of Ghana is a leading financial institution in agricultural financing. Currently it has fifty branches, ten agencies and four farm loan offices across the country and it operates a variety of services.

### 3.3.3.1 Products and Brands

The bank engages in other types of banking in addition to making agricultural loans. The range of services offered include: Development Banking, Corporate Banking,

Personal Banking, International Banking, Diaspora Banking Services, Treasury Management Services and Money Transfer Services, in partnership with western union.

### 3.4 Sources of Data

Data were collected mainly from secondary sources including but not limited to:

- Company profile or historical background
- Annual reports or financial statements of the banks


### 3.5 Analytical Approach and Tools

The following tools were used for analysis in this study:

### 3.5.1 Ratio Analysis

1. Profitability ratios (return on equity, profit after tax margin, return on assets, and total operating income to total assets, cost income ratio, non-interest income to operating income and non-interest income to earning asset).
2. Liquidity ratios (liquid assets to total deposits, liquid assets to total assets, liquid assets to earning assets, net loans to total deposits and net loans to total assets).
3. Credit/portfolio quality ratios (NPL"s to total loans, impairment charges to gross loans and loan portfolio profitability).
4. Capital structure (capital adequacy ratio)

### 3.5.2 Profitability Ratios

Profitability is the mostly used measure of a bank"s performance. These ratios are used to determine the firm"s ability in generating earnings whiles comparing it to its relevant expenses incurred within a particular time frame. These ratios show the firm " s profitability after taking deducting all expenses and income taxes, the efficiency of operations, firm pricing policies, profitability on assets and to shareholders of the firm (Van Horne 2005).

According to Larson, et al (1999), "profitability refers to a company"s ability to generate an adequate return on capital invested" (p. 795).

In finding out how well a bank is performing in terms of profits, the profitability ratios are mostly considered as the basic bank financial ratio. The higher the profitability ratio, the better in terms of performance of the bank.

Ratios that were considered for measuring profit adequacy or otherwise of the Banks include Return on equity, Profit after tax margin, return on assets, total operating income to total assets, cost income ratio, non-interest income to operating income and non-interesting to earning assets.

### 3.5.2.1 Return on Equity (ROE)

This is the yield on shareholders" investment after all obligations such as fixed interests have been taken. It is a measure of how well a company has used its reinvested earnings to generate additional earnings. It is generally used as a measure of a company"s efficiency, in order words, how much profit a firm is able to generate given the resources provided by its shareholders. Investors usually look for companies with higher returns on equity.

Net profit or profit after tax $\times 100$
Shareholders" fund or equity

### 3.5.2.2 Profit after Tax Margin

Represents that portion of total sales that is available to shareholders. This shows the percentage of income that a company actually earns per unit of amount of its sales.

The higher the value of profit after tax margin, the better for the bank.
Net profit or profit after tax $\times 100$
Total income

### 3.5.2.3 Return on Assets (ROA)

Return on Assets is the yield or return on total assets invested in the operations of an organisation. It measures a company"s profitability, equal to a fiscal year"s earnings divided by its total assets expressed as a percentage. Invstors usually looks for banks with higher return on assets.

### 3.5.2.4 Cost to Income Ratio

The cost income ratio is a key financial measure, particularly important in valuing banks. It shows a company"s cost in relation to its income. The ratio gives investors a clear view of how efficiently the company is being run. The lower it is, the more profitable the bank will be. Changes in the ratio can also highlight potential problems. If the ratio rises from one period to the next, it means that costs are rising at a higher rate than income.

Non-interest expenses $\times 100$
Operating income

### 3.5.2.5 Non-Interesting Income to Operating Income

Non-interest income is an income derived primarily from commissions and fees. Transaction fees, service fees, and monthly account service charges are examples of non-interest income. This ratio seeks to know the proportion of non-interest income to the total operating income of the banks. Banks charge fees that provide non-interest income as a way of generating revenue and ensure liquidity in the event of increased default rates.

## Non-interesting incomex 100

Operating income

### 3.5.2.6 Non-Interest Income to Earning Assets

1. Earning assets are assets that generate income (interest, dividend, rent etc) for the bank.

Non-interest income $\times 100$

Earning assets

### 3.5.3 Liquidity Ratios

Liquidity indicates the ability of the bank to meet its financial obligations in a timely and effective manner. Samad (2004:36) states that "liquidity is the life and blood of a commercial bank". Liquidity ratios give a picture of a company"s short-term financial situation or solvency, that is, they seek to assess the ease of raising cash or cash equivalents for the payment of immediate or short-term liabilities. The ratios which were be used are discussed in details.

### 3.5.3.1 Liquid Assets to Total Deposits

These are assets that are easily convertible to cash if there is the need to meet urgent financial obligations. It indicates that the bank is liquid enough to pay off its depositors in times of emergency such as sudden withdrawals. A higher ratio shows a better liquidity position of the bank as well as enhanced trust and confidence reposed by depositors.

$$
\text { Liquid assets } \times 100
$$

Total deposits

### 3.5.3.2 Liquid Assets to Total Assets

This ratio gives a picture of how liquid the total asset of the bank is. It normally does not show a picture of more than half of the total assets being liquid because most of the assets are loans and advances, other assets and fixed assets which are mostly huge.

## Liquid assets x 100

## Total assets

### 3.5.3.3 Liquid Asset to Earning Assets

This ratio analysis shows how much of the earning assets are liquid that are easily convertible to cash to meet debt obligations. It must be noted that not all the liquid assets are earning assets.


### 3.5.3.4 Net loans to Total Deposit Ratio

This measures total advances or loans granted by the bank in relation to its total deposits. A lower LDR means there is excess liquidity and hence less risky the bank is. Banks are primarily in business to mobilize deposits and grant loans. Out of the total deposit mobilized, banks are supposed to keep 10 percent as primary reserve with the Central Bank. The remaining 90 percent is available for assets creation and other things. This ratio assesses how much of the total deposits mobilized have been converted to loans.

## Net Loans x 100

Total deposits

### 3.5.3.5 Net Loans to Total Assets

This is a measure of the percentage of the bank"s assets that are tied up in loans. It is a measure of the liquidity of the bank in terms of its total assets. A lower ratio means the more liquid the bank is.

Net loans x 100

Total assets

### 3.5.4 Portfolio/Credit Quality Ratio

This ratio measures the risk that is associated with the bank"s asset portfolio which is the quality of loans issued by the bank. These include Nonperforming loans to total loans, impairment charges to gross loans and loan portfolio profitability.

### 3.5.4.1 Non-Performing Loans to Total Loans



A non-performing loan is the sum of loans which customers have not made their scheduled payment. This ratio is the percentage of total loans that have been either in default or close to being in default. The higher the nonperforming loan the poorer the credit quality of the bank.

Nonperforming loans x 100


### 3.5.4.2 Impairment Charges to Gross Loans

Impairment charge is the allowance for bad debt, it is a measure of the portion of a bank"s loan portfolio that is likely to go bad. When a loan becomes uncollectible, it is taken off the books and the impairment is charged for the book value of the loan. The lower the impairment charge to gross loans the better.

Impairment charges x 100
Gross loans

### 3.5.4.3 Loan Portfolio Profitability

This ratio measures the profitability of a bank"s loan portfolio and its contribution to the total profitability of the bank. Negative percentage indicates that the loan portfolio at that point in time was not profitable.

Int. income (Loans \& adv.) - prov. bad \& doubtful loans x 100 Net loans

### 3.5.5 Capital Structure

This looks at the capital structure and capital adequacy of banks. The ratio that was used is capital adequacy ratio.

### 3.5.5.1 Capital Adequacy Ratio (CAR)

This is the ratio of the bank"s capital to risk. Regulators track a bank"s CAR to ensure that it can absorb a reasonable amount of loss and compliance with statutory requirement. The regulated minimum CAR is $10 \%$.

## Tier 1 Capital + Tier 2 Capitalx 100

Risk weighted assets

### 3.6 Tools

Data were analyzed and graphed using Microsoft Excel spreadsheet and Stata. The Hotelling t -test is used to compare the differences in means of the calculated ratios and comparisons made with the aid of tables. In conclusion, the methods, processes, materials and tools that were employed for the execution of this study is so chosen to facilitate the most effective and efficient delivery of the study objectives.

## CHAPTER FOUR

## RESULTS AND DISCUSSION

### 4.0 Introduction

In this chapter, the following issues are discussed; key financial ratios, hotelling T-test and interpretation thereof and comparison among the three banks used for the study.

### 4.1 Profitability and Efficiency Ratios

### 4.1.1 Return on Equity

During the period under review GCB did not record a negative percentage meaning the Bank did not make a loss. The lowest rate of $9.11 \%$ was in the year 2009. The highest ratio of $49.07 \%$ was recorded in 2012. This was mainly because the bank made a huge profit of GH $¢ 201$ million.

From table 4.1 below, NIB recorded negative ROEs the years 2010 and 2005. It recorded negative $0.83 \%$ and negative $1.83 \%$ in 2010 and 2008 respectively. The reason for the negative percentages were as a result of the losses of $\mathrm{GH} \not \subset 548$ and $\mathrm{GH} \not \subset 418.50$ the bank made in the years 2010 and 2005 respectively. In the year 2008 NIB recorded the highest ratio of $83.32 \%$. The main reasons for the highest ratio were the $260 \%$ increment in net profit from 2007 to 2008. Again the stated capital of the bank was increased from $\mathrm{GH} \not \subset .0$ million in 2007 to $\mathrm{GH} \Varangle 20.0$ million 2008.

ADB didn "t record a negative ratio. This indicates that the bank didn"t make any loss during the period under review. It recorded its lowest ratio of $0.42 \%$ in 2006. It was this year that the bank made its lowest profit and hence the lowest ratio. It has its highest ratio of 28.69 percent in 2013. The bank recorded its highest net profit after tax of

GH $\not \subset 80.63$ million in 2013. It could be observed from the balance sheet that the stated capital of the bank has increased from GH\&2.0 million in 2006 through to GH¢ 75.0million in 2013.

The implication is that among the banks, GCB did well in terms of profitability during the period under review. Also, it was observed that increase in stated capital by NIB and ADB helped them to sustain and increase profitability over the period

Table 4.1: Return on Equity

| Bank 2014 | $\underline{2013}$ | $\underline{2012}$ | $\underline{2011}$ | $\underline{2010}$ | $\underline{2009}$ | $\underline{2008}$ | $\underline{2007}$ | $\underline{2006}$ | $\underline{2005}$ | $\underline{2004}$ |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| GCB | 25.89 | 44.99 | 49.07 | 9.84 | 27.65 | 9.11 | 18.15 | 15.08 | 28.69 | 18.06 | 28.43 |
| NIB | 16.13 | 13.50 | 11.61 | 9.03 | -0.83 | 31.39 | 83.32 | 12.59 | 5.06 | -1.83 | 30.30 |
| $\underline{\text { ADB }}$ | 13.92 | $\underline{28.69}$ | $\underline{13.54}$ | $\underline{24.75}$ | $\underline{10.96}$ | $\underline{10.42}$ | $\underline{13.74}$ | $\underline{12.25}$ | $\underline{0.42}$ | $\underline{12.05}$ | $\underline{19.75}$ | Source: Computed from data presented in Annual Reports

Table 4.2: Hotelling Mean Test Results for ROE


Source: Computed from data presented in Annual Reports

From Table 4.2, the average return on equity (ROE) for $\mathrm{GCB}, \mathrm{ADB}$ and NIB are $24.99636,14.59$, and 19.11545 respectively. The probability value of 0.0003 however rejects the null hypothesis that the vector of means is equal to a vector of zeros. The mean return on equity for the three banks is therefore statistically significant different from each other at 5\% significant level. Thus statistically, the return on equity for GCB is highest followed by NIB and ADB. According to audited annual financial report of GCB between 2012 and 2014, the bank recorded huge profit in the period especially in 2012 when it recorded a profit of GH¢201m and also it made high income to cater for the operational expenses incurred during these period and that accounted for its highest return on equity.

### 4.1.2 Profit after Tax Margin

During the period under review, GCB recorded its lowest margin of $5.77 \%$ in 2011 . This is because the bank recorded a low income which could not significantly absorb the expenses. The bank had a margin of $35.23 \%$ in 2013 being the highest percentage during the period under review. Aside the bank recording its highest net profit after tax in 2013, it made high income to cater for the operational expenses incurred during the year.

From table 4.3 below, NIB recorded negative percentages of $0.52 \%$ and $1.40 \%$ in the years 2010 and 2005 respectively. This was as a result of the bank making losses in these two years. The bank recorded its highest percentage of $38.56 \%$ in 2008 . This is because the operational expenses incurred in the year compared to the interest income and other incomes were lower than the other years.

ADB recorded profit after tax margin of $4.52 \%$ in 2006 as the lowest margin for the period. This is because the bank recorded its lowest profit after tax that year during the
period under review. The highest margin of $23.35 \%$ was recorded in 2013. The reason for the high margin is not different from that of NIB. Again, ADB recorded its highest net profit after tax during the period under review in the year 2013.

Table 4.3: Profit after Tax Margin

| $\underline{\text { Bank }}$ | $\underline{2014}$ | $\underline{2013}$ | $\underline{2012}$ | $\underline{2011}$ | $\underline{2010}$ | $\underline{2009}$ | $\underline{2008}$ | $\underline{2007}$ | $\underline{2006}$ | $\underline{2005}$ | $\underline{2004}$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| GCB | 20.47 | 35.23 | 32.99 | 5.77 | 14.49 | 9.01 | 19.94 | 16.95 | 20.94 | 12.29 | 19.56 |
| NIB | 25.23 | 21.42 | 8.25 | 6.36 | -0.52 | 20.40 | 38.56 | 13.52 | 5.39 | -1.40 | 18.92 |
| $\underline{\text { ADB }}$ | $\underline{10.56}$ | $\underline{23.35}$ | $\underline{9.28}$ | $\underline{20.05}$ | $\underline{6.52}$ | $\underline{9.56}$ | $\underline{14.64}$ | $\underline{16.24}$ | $\underline{4.52}$ | $\underline{14.68}$ | $\underline{19.89}$ |

Source: Computed from data presented in Annual Reports

Table 4.4: Hotelling Mean Test Results for Profit after Tax Margin

|  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  |  | Ho: Vector of means is equal to a vector of zeros |  |  |  |
| Variable | Obs | Mean | Std. Dev. | Min | Max |
| GCB | 11 | 18.87636 | 9.00270 | 5.77 | 35.23 |
| ADB | 11 | 13.57182 | 6.01860 | 4.52 | 23.35 |
| NIB | 11 | 14.19364 | 12.0950 | -1.4 | 38.56 |
| Hotelling's T-squared $=94.9$ | 5032 |  | Prob $>\mathrm{F}(3,8)=$ | 0.0002 |  |
| $\mathrm{~F}(3,8)=$ | 25.3201 |  |  |  |  |

The average profit after tax margin for GCB, ADB, and NIB are 18.87636, 13.57182, and 14.19364 respectively. The probability value of 0.0002 however rejects the null hypothesis that vector of means are all zeros. The conclusion therefore is that the average profit after tax margins for the three banks are statistically different from each other at $5 \%$ level of significance. Thus statistically, the profit after tax margin for GCB is highest
followed by NIB and ADB. According to audited annual financial report of GCB between 2012 and 2014, the bank recorded high net profit after tax especially 2013 and also it made high income to cater for the operational expenses incurred during these period and that accounted for the highest profit after tax margin.

### 4.1.3 Return on Assets



GCB had $0.68 \%$ as it"s lowest which occurred in 2011. A percentage of 5.93 was recorded in 2013. This happens to be highest ratio for the period under consideration. From table 4.5 below, NIB recorded negative percentages of 0.08 and 0.22 in 2010 and 2005 respectively. This was that the bank was not profitable in these two years. The highest ratio of $6.81 \%$ was recorded in 2008.

ADB had the lowest percentage of 0.71 in 2006. $4.97 \%$ was made in 2013 and it happens to be the highest percentage in the period under review.

Table 4.5: Return on Assets

| $\underline{\text { Bank }}$ | $\underline{2014}$ | $\underline{2013}$ | $\underline{2012}$ | $\underline{2011}$ | $\underline{2010}$ | $\underline{2009}$ | $\underline{2008}$ | $\underline{2007}$ | $\underline{2006}$ | $\underline{2005}$ | $\underline{2004}$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| GCB | 4.04 | 5.93 | 4.66 | 0.68 | 2.31 | 0.95 | 2.25 | 2.18 | 3.29 | 2.16 | 2.93 |
| NIB | 3.42 | 3.24 | 1.33 | 0.86 | -0.08 | 3.50 | 6.81 | 2.13 | 0.71 | -0.22 | 3.49 |
| $\underline{\text { ADB }}$ | $\underline{2.22}$ | $\underline{4.97}$ | $\underline{1.85}$ | $\underline{3.62}$ | $\underline{1.21}$ | $\underline{1.72}$ | $\underline{2.39}$ | $\underline{2.46}$ | $\underline{0.71}$ | $\underline{2.18}$ | $\underline{3.57}$ |

Source: Computed from data presented in Annual Reports

## Table 4.6: Hotelling Mean Test Results for Return on Assets (ROA)

| Ho: Vector of means is equal to a vector of zeros |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Variable | Obs | Mean | Std. Dev. | Min | Max |


| GCB | 11 | 2.852727 | 1.558012 | 0.68 | 5.93 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| ADB | 11 | 2.445455 | 1.206693 | 0.71 | 4.97 |
| NIB | 11 | 2.29 | 2.0717 | -0.22 | 6.81 |

Hotelling's T-squared $=66.48604$
Prob $>F(3,8)=0.0007$
$\mathrm{F}(3,8)=17.7296$

Source: Computed from data presented in Annual Reports

From Table 4.6, the average return on assets (ROA) for GCB, ADB, and NIB are 2.852727, 2.445455, and 2.29 respectively. The Hotelling test for statistical significance of the means rejects the null hypothesis that, the vector of means is equal to zero since it reports a probability value of 0.0007 . Therefore, the individual means are statistically different from each other at 5\% significance level. Thus statistically, return on assets for GCB was the highest followed by ADB and NIB respectively. Inferring from the audited annual financial report of GCB from 2012 to 2014, the bank made huge profits and that accounted for the highest level. According to audited annual financial report of NIB in 2005 and 2010, the bank made losses and that accounted for its lowest level of return on assets.

### 4.1.4 Cost Income Ratio

From table 4.7 below, cost income ratio of GCB between 2014 and 2004 recorded its lowest figure of $23.31 \%$ in 2008 whiles the highest was in 2011 with a rate of $86.06 \%$. This indicates that the bank was efficient in its operations in 2008 as compared with other years during the period. With reference to the highest rate, the banks cost went up but they could not generate enough profit or revenue to cover the
cost.

NIB recorded the lowest of $42.69 \%$ in the year 2013. It shows that the bank was very efficient in its operations in 2013 than any other year in the period under consideration. $82.54 \%$ which was recorded in 2006 was the highest in the period under review. It was high because aside the increase in costs the bank could not make enough income to cover the cost.

During the period under review, ADB"s lowest cost income ratio of $13.95 \%$ was in
2013. A critical analysis of the bank"s income statement shows that the activities of the bank were efficiently managed. Income went up significantly from the previous years with a minimal cost. The highest ratio of $77.78 \%$ was in 2011, this shows the opposite of what happened in 2013. The operating expenses that were recorded in 2011 gives an indication.

Table 4.7: Cost Income Ratio

| Bank | $\underline{2014}$ | $\underline{2013}$ | $\underline{2012}$ | $\underline{2011}$ | $\underline{2010}$ | $\underline{2009}$ | $\underline{2008}$ | $\underline{2007}$ | $\underline{2006}$ | $\underline{2005}$ | $\underline{2004}$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| GCB | 51.31 | 47.35 | 52.65 | 86.06 | 57.88 | 23.58 | 23.31 | 67.83 | 66.92 | 70.62 | 60.44 |
| NIB | 46.32 | 45.69 | 48.40 | 51.13 | 65.99 | 76.74 | 76.71 | 68.01 | 82.54 | 75.67 | 50.10 |
| $\underline{\text { ADB }}$ | $\underline{27.42}$ | $\underline{13.95}$ | $\underline{29.72}$ | $\underline{77.78}$ | $\underline{86.38}$ | $\underline{66.72}$ | $\underline{70.24}$ | $\underline{71.33}$ | $\underline{58.41}$ | $\underline{62.51}$ | $\underline{45.66}$ |
| Source: Computed from data presented in Annual Reports |  |  |  |  |  |  |  |  |  |  |  |

Table 4.8: Hotelling Mean Test Results for Cost Income Ratio (CIR)

|  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  |  | Ho: Vector of means is equal to a vector of zeros |  |  |  |
| Variable | Obs | Mean | Std. Dev. | Min | Max |
| GCB | 11 | 55.26818 | 19.03059 | 23.31 | 86.06 |
| ADB | 11 | 55.46545 | 23.18973 | 13.95 | 86.38 |
| NIB | 11 | 62.48182 | 14.3126 | 45.69 | 82.54 |
| Hotelling's T-squared $=431.044$ |  | Prob $>\mathrm{F}(3,8)=$ | 0.0000 |  |  |
| $\mathrm{~F}(3,8)=$ | 114.044 |  |  |  |  |

Source: Computed from data presented in Annual Reports

From Table 4.8, the average cost income ratio (CIR) for GCB, ADB, and NIB are 55.26818, 55.46545, and 62.48182 respectively. The Hotelling test for statistical significance of the means rejects the null hypothesis that, the vector of means is equal to zero since it reports a probability value of 0.0000 . Therefore, the individual means are statistically different from each other at $5 \%$ significance level. Thus statistically, cost income ratio for NIB was the highest followed by ADB and GCB respectively. The reason for NIB"s highest level of cost income ratio according to the audited annual financial report from 2004 to 2011 was that the bank"s cost of operation increased but could not generate enough profit or revenue to cover the cost.

### 4.1.5 Non-Interest Income to Operating Income

From table 4.9, GCB had its lowest ratio of 15.45 percent in 2010. The highest ratio was 2007 when it recorded $38.73 \%$. GCB"s ratios show that most of the banks income was coming from interest income from loans and investment. During the period under review, non-interest income to operating income of NIB was $35.26 \%$ in 2005. This was lowest percentage in the period under review. The highest percentage was recorded in 2013 and it was 58.76 percent. It could be seen from the statement of comprehensive income in this year and other operating income increased
significantly. This shows that in times of defaults the bank can comfortably continue to have liquidity and can make decent profit.

ADB recoded it lowest ratio of 38.17 percent in 2013 and its highest point of noninterest income to operating income for the period under research was 54.96 percent in 2009.

Table 4.9: Non-Interest Income to Operating Income

| $\underline{\text { Bank }}$ | $\underline{2014}$ | $\underline{2013}$ | $\underline{2012}$ | $\underline{2011}$ | $\underline{2010}$ | $\underline{2009}$ | $\underline{2008}$ | $\underline{2007}$ | $\underline{2006}$ | $\underline{2005}$ | $\underline{2004}$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| GCB | 28.37 | 19.47 | 22.64 | 28.51 | 15.45 | 34.48 | 28.84 | 38.73 | 28.31 | 31.96 | 28.33 |
| NIB | 42.96 | 58.76 | 43.28 | 46.04 | 55.00 | 37.41 | 50.20 | 42.17 | 39.76 | 35.26 | 38.39 |
| $\underline{\text { ADB }}$ | $\underline{39.40}$ | $\underline{38.17}$ | $\underline{34.49}$ | $\underline{53.91}$ | $\underline{35.68}$ | $\underline{54.96}$ | $\underline{51.93}$ | $\underline{48.39}$ | $\underline{41.86}$ | $\underline{44.16}$ | $\underline{54.31}$ | Source: Computed from data presented in Annual Reports

Table 4.10: Hotelling Mean Test Results for Non-Interest Income/Operating Income

| Ho: Vector of means is equal to a vector of zeros |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Variable | Obs | Mean | Std. Dev. | Min | Max |
| GCB | 11 | 27.73545 | 6.575224 | 15.45 | 38.73 |
| ADB | 11 | 45.20545 | 7.811626 | 34.49 | 54.96 |
| NIB | 11 | 44.47545 | 7.437654 | 35.26 | 58.76 |
| Hotelling's T-squared $=2113.8688$ |  | Prob $>\mathrm{F}(3,8)=$ | 0.0000 |  |  |
| $\mathrm{~F}(3,8)=$ | 563.6983 |  |  |  |  |

Source: Computed from data presented in Annual Reports

From Table 4.10, the average non-interest income to operating income for GCB, ADB, and NIB are $27.73545,45.20545$, and 44.47545 respectively. The Hotelling test for statistical significance of the means rejects the null hypothesis that, the vector of means is equal to zero since it reports a probability value of 0.0000 . Therefore, the individual means are statistically different from each other at 5\% significance level. Thus statistically, the non-interest income to operating income for ADB is the highest followed by NIB and GCB respectively. According to the audited annual financial report from 2004 to 2014 of ADB, it had most of its income from non-interest activities of the
bank such as fees, commissions and returns/dividends from other investments and that accounted for highest level.

### 4.1.6 Non-Interest Income to Earning Assets

The highest non-interest income to earning assets of GCB was $7.30 \%$ in 2014 and the lowest was $3.13 \%$ in 2010. NIB followed similar trend with its highest non-interest income to earning assets being $7.76 \%$ in 2014 and its lowest rate was $3.23 \%$. The highest rate of non-interest income to earning assets of ADB for the period under review was 13.12 in 2004 and the lowest rate was $6.40 \%$.

Table 4.11: Non-Interest Income to Earning Assets

| Bank | 2014 | 2013 | 2012 | 2011 | 2010 | 2009 | 2008 | 2007 | 2006 | 2005 | 2004 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| GCB | 7.30 | 3.86 | 3.92 | 4.32 | 3.13 | 4.14 | 3.86 | 5.84 | 5.16 | 6.90 | 5.04 |
| NIB | 7.76 | 6.95 | 4.24 | 4.01 | 5.07 | 2.84 | 5.10 | 4.23 | 3.35 | 3.23 | 4.78 |
| ADB | 8.55 | 8.71 | 7.08 | 10.00 | 6.40 | 9.99 | 9.10 | 9.14 | 8.53 | 8.16 | 13.12 |

Source: Computed from data presented in Annual Reports

Table 4.12: Hotelling Mean Test Results for Non-Interest Income to Earning Assets
$\mathrm{H}_{\mathrm{o}}$ : Vector of means is equal to a vector of zeros

| Variable | Obs | Mean | Std. Dev. | Min | Max |
| :--- | :--- | :--- | :--- | :--- | :--- |
| GCB | 11 | 4.860909 | 1.337329 | 3.13 | 7.3 |
| ADB | 11 | 8.98 | 5 | 1.750406 | 6.4 |

$\mathrm{F}(3,8)=133.1456$
Source: Computed from data presented in Annual Reports

The average non-interest income to earning assets for GCB, ADB, and NIB reported in Table 4.12 are $4.860909,8.98$, and 4.687273 respectively. The probability value of 0.0000 however rejects the null hypothesis that vector of means are all zeros. The conclusion therefore is that the average non-interest income to earnings assets for the three banks is statistically different from each other at $5 \%$ level of significance. Statistically, non-interest income to earning assets for ADB was the highest followed by GCB and NIB respectively. According to the audited annual financial report from

2004 to 2014 of ADB, it had most of its income from non-interest activities of the bank such as fees, commissions and returns/dividends from other investments and that accounted for the highest level.

### 4.2 Liquidity Ratios

### 4.2.1 Liquid Asset to Total Deposit

GCB recorded significance figures with regards to liquid assets to total deposits. Its highest ratio was in 2014 when it recorded $85.19 \%$ and the lowest was $28.82 \%$ in
2009. The highest ratio was as a result of huge deposits the bank had with Bank of Ghana and other investments that the bank has made. The reason for the low figure in 2009 was as a result of increasing deposits from customers due to an attractive investment rates offered by the bank for its fixed deposits.

From table 4.13 below NIB recorded the highest ratio of $111.19 \%$ in 2004. This was because the bank went for borrowings and managed funds during the year. The total borrowed and managed funds were more than the total deposit. It converted these funds into liquid assets to generate income. It recorded the lowest rate of $37.69 \%$ in 2008, meaning more of the customer"s deposits were not in liquid assets but rather fixed and other assets and it would have been difficult to meet huge withdrawals from depositors.

In 2004, ADB recorded an astronomical figure of $95.78 \%$ as its highest liquid assets to total deposits and this was because they had more managed funds from the government and borrowed funds from Bank of Ghana, the majority shareholder of the Bank. These resources were more than the total deposits. The lowest was $8.23 \%$ and that was in 2006. This means that more of the customer"s deposits were not in liquid assets but rather fixed and other assets.

Table 4.13: Liquid Asset to Total Deposit

| Bank 2014 | 2013 | 2012 | 2011 | 2010 | 2009 | 2008 | 2007 | 2006 | 2005 | 2004 |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| GCB | 85.19 | 78.15 | 80.26 | 79.19 | 50.68 | 28.82 | 41.66 | 37.92 | 45.40 | 53.87 | 62.70 |
| NIB | 69.74 | 57.89 | 52.15 | 50.73 | 58.11 | 50.74 | 37.36 | 47.89 | 48.73 | 53.39 | 111.19 |
| $\underline{\text { ADB }}$ | $\underline{57.98}$ | $\underline{51.57}$ | $\underline{53.71}$ | $\underline{46.08}$ | $\underline{54.06}$ | $\underline{58.91}$ | $\underline{47.35}$ | $\underline{58.22}$ | $\underline{8.23}$ | $\underline{73.33}$ | $\underline{95.78}$ |

Table 4.14: Hotelling Mean Test Results for Liquid Asset to Total Deposit
$\underline{H_{0}}$ : Vector of means is equal to a vector of zeros

| Variable | Obs | Mean | Std. Dev. | Min | Max |
| :--- | :--- | :--- | :--- | :--- | :--- |
| GCB | 11 | 58.53091 | 19.64664 | 28.82 | 85.19 |
| ADB | 11 | 55.02 | 20.91259 | 8.23 | 95.78 |
| NIB | 11 | 57.99273 | 19.34481 | 37.36 | 111.19 |
| Hotelling's T-squared $=164.49222$ | Prob $>\mathrm{F}(3,8)=$ |  |  |  |  |
| 0.0001 |  |  |  |  |  |
| $\mathrm{~F}(3,8)=43.8646$ |  |  |  |  |  |

Source: Computed from data presented in Annual Reports

The mean liquid asset to total deposit for GCB, ADB and NIB reported in Table 4.14 are $58.53091,55.02$, and 57.99273 respectively. The probability value of 0.0001
however rejects the null hypothesis that vector of means are all zeros. The conclusion therefore is that the mean liquid asset to total deposit for the three banks is statistically different from each other at $5 \%$ level of significance. Comparing the mean liquid asset to total deposit shows that GCB recorded the highest average in terms of the liquid asset to total deposit followed by NIB and ADB. According to the audited annual financial reports of GCB and ADB from 2010 to 2014, GCB had huge deposits at Bank of Ghana and other investments that the bank has made and with that of NIB, more of the customer"s deposits were not in liquid assets but rather fixed and other assets and that accounted for the highest and lowest level of liquid asset to total deposit of the two banks respectively.

### 4.2.2 Liquid Asset to Total Asset

This ratio gives a picture of how liquid the total asset of the bank is. It normally does not show a picture of more than half of the total assets being liquid because most of the assets are loans and advances, other assets and fixed assets which are mostly huge.

Analyses of the table shows that GCB recorded more than $60 \%$ in 2014, 2013, 2012, and 2011. The reason was that the bank invested more in government securities than loans and advances granted to customers in the same period. It has its lowest ratio of
$18.93 \%$ in 2009. From the table below NIB recorded $41.73 \%$ as its highest ratio in 2011 and the lowest was in 2008 which was $23.13 \%$.

## SANE

ADB had the highest ratio of $49.64 \%$ in 2004 and the lowest of $24.23 \%$ in 2008. The reason for the high liquid asset to total asset of NIB and ADB was that they invested
more in government securities than loans and advances granted to customers for the periods 2014, 2013, 2012 and 2011.

## Table 4.15: Liquid Asset to Total Asset

| $\underline{\text { Bank }}$ | $\underline{2014}$ | $\underline{2013}$ | $\underline{2012}$ | $\underline{2011}$ | $\underline{2010}$ | $\underline{2009}$ | $\underline{2008}$ | $\underline{2007}$ | $\underline{2006}$ | $\underline{2005}$ | $\underline{2004}$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| GCB | 61.95 | 60.62 | 63.04 | 66.50 | 38.66 | 18.93 | 26.08 | 27.87 | 37.13 | 43.45 | 47.49 |
| NIB | 40.40 | 36.94 | 41.66 | 41.73 | 41.19 | 31.43 | 23.13 | 32.19 | 29.56 | 35.24 | 36.14 |
| $\underline{\text { ADB }}$ | $\underline{39.31}$ | $\underline{33.74}$ | $\underline{35.89}$ | $\underline{31.64}$ | $\underline{30.04}$ | $\underline{34.09}$ | $\underline{24.23}$ | $\underline{33.48}$ | $\underline{47.88}$ | $\underline{38.77}$ | $\underline{49.64}$ |
| Source: Computed from data presented in Annual Reports |  |  |  |  |  |  |  |  |  |  |  |

Table 4.16: Hotelling Mean Test Results for Liquid Asset to Total Assets


Source: Computed from data presented in Annual Reports

The average of liquid asset to total assets for GCB, ADB, and NIB reported in Table 4.16 are $44.70182,36.24636$, and 35.41909 respectively. The probability value of 0.0000 however rejects the null hypothesis that vector of means are all zeros. The conclusion therefore is that the mean liquid asset to total assets for the three banks is statistically different from each other at 5\% level of significance. Statistically, liquid
asset to total assets for GCB was the highest followed by ADB and NIB. Inferring from the audited annual financial report of GCB between 2010 and 2014, GCB invested more in government securities than loans and advances granted to customers whiles NIB invested more in loans and advances.

### 4.2.3 Liquid Asset to Earning Asset

GCB had a higher percentage of $80.87 \%$ in 2014. This happened as a result of the bank keeping an amount of GH\&462 million in cash and balance with Bank of Ghana. It was $216 \%$ in excess of the 10 percent of primary reserve to be kept at the Bank of Ghana. The lowest ratio of $21.66 \%$ was recorded in 2009. It was mainly due to more loan creation in the year.

From the table 4.17 below, NIB recorded the highest ratio of $48.93 \%$ in 2014. It was as a result of the bank investing more in government securities, and investment in other banks and financial institutions. The lowest ratio of $28.34 \%$ was in 2008. This was because most of its earning assets where in loan and advances.

ADB recorded $91.93 \%$ in 2004 being its highest ratio. The bank concentrated in investing in government securities and other banks and financial institutions at the expense of loans. A $32.51 \%$ was recorded in 2008 and it was as a result of the bank granting more loans that year from the funds they had from increment in stated capital and borrowed from the Central Bank.

Table 4.17: Liquid Asset to Earning Asset

| $\underline{\text { Bank } 2014}$ | $\underline{2013}$ | $\underline{2012}$ | $\underline{2011}$ | $\underline{2010}$ | $\underline{2009}$ | $\underline{2008}$ | $\underline{2007}$ | $\underline{2006}$ | $\underline{2005}$ | $\underline{2004}$ |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| GCB | 80.87 | 71.42 | 77.11 | 85.53 | 49.08 | 21.66 | 30.96 | 32.74 | 43.03 | 53.39 | 56.46 |


| NIB | 48.93 | 38.28 | 43.66 | 47.78 | 46.88 | 37.52 | 28.34 | 37.66 | 37.52 | 42.62 | 40.59 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ADB | 53.67 | 44.12 | 44.05 | 40.61 | 37.37 | 49.02 | 32.51 | 49.55 | 75.15 | 61.02 | 81.93 |

Table 4.18: Hotelling Mean Test Results for Liquid Asset to Earning Asset

|  | Ho: Vector of means is equal to a vector of zeros |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Variable | Obs | Mean | Std. Dev. | Min | Max |
| GCB | 11 | 54.75 | 21.74202 | 21.66 | 85.53 |
| ADB | 11 | 51.72727 | 15.42358 | 32.51 | 81.93 |
| NIB | 11 | 40.88909 | 5.968341 | 28.34 | 48.93 |

Hotelling's T-squared $=723.73882 \quad$ Prob $>F(3,8)=0.0000$
$\mathrm{F}(3,8)=192.9970$
Source: Computed from data presented in Annual Reports

The average of liquid asset to earning assets for GCB, ADB, and NIB reported in Table 4.18 are $54.75,51.72727$, and 40.88909 respectively. The probability value of 0.0000 however rejects the null hypothesis that vector of means are all zeros. The conclusion therefore is that the mean liquid asset to earning assets for the three banks is statistically different from each other at 5\% level of significance. Comparing the mean liquid asset to total assets shows that GCB recorded the highest average in terms of the liquid asset to earning assets followed by ADB and NIB respectively. According to the audited financial report of GCB, its highest level of liquid asset to earning asset was as a result of bank keeping most of its monies in cash and balance with Bank of Ghana especially from 2010 to 2014. NIB recorded the lowest because most of their earning assets were in loans and advances.

### 4.2.4 Net Loans to Total Deposit

From table 4.19, GCB always recorded a more than 100 percent in some years. It recorded $115.27 \%$ in 2009 and $111.08 \%$ in 2008. The bank borrowed hugely in both years to the tune of $\mathrm{GH} ¢ 452$ million and $\mathrm{GH} \phi 309$ million in 2009 and 2008 respectively. These were the reason for the more than $100 \%$ ratios. It recorded the lowest ratio of $37.94 \%$ in 2012. The reason for this low percentage was that the bank did not concentrate in loan creation in that year but rather concentrated in investing in the risk free government securities

From the table below, NIB was able to convert more than $50 \%$ of its total deposit into loans throughout the period under consideration. It recorded the highest rate of $174.46 \%$ in 2004. This was because the bank borrowed funds and had managed funds from the Government of Ghana, these funds were also converted into loans. It recorded lowest ratio of $55.23 \%$ in 2011.

ADB recorded a ratio of $116 \%$ and $107.63 \%$ in 2008 and 2010 respectively. The ratio in 2008 was a result of a $\mathrm{GH} \Varangle 30$ million increase in stated capital and $\mathrm{GH} \Varangle 108$ million from the Bank of Ghana. Most of these funds were used for loan creations.

The lowest percentage was recorded in 2006.

Table 4.19: Net Loans to Total Deposit
$\begin{array}{lllllllllll}\text { Bank } & 2014 & 2013 & 2012 & 2011 & 2010 & 2009 & 2008 & 2007 & 2006 & 2005\end{array} 2004$ $\qquad$
$\begin{array}{llllllllllll}\text { GCB } & 43.79 & 43.00 & 37.94 & 33.64 & 74.18 & 115.27 & 111.08 & 91.06 & 70.74 & 61.93 & 63.04\end{array}$
$\begin{array}{llllllllllll}\text { NIB } & 57.27 & 67.91 & 64.19 & 55.23 & 65.55 & 84.49 & 94.47 & 79.27 & 81.14 & 71.87 & 174.46\end{array}$
$\begin{array}{llllllllllll}\text { ADB } & \underline{76.88} & \underline{86.17} & \underline{80.17} & \underline{82.00} & \underline{107.63} & \underline{87.70} & \underline{116.00} & \underline{84.49} & \underline{6.44} & \underline{69.58} & \underline{52.71}\end{array}$
Source: Computed from data presented in Annual Reports

Table 4.20: Hotelling Mean Test Results for Net Loans to Total Deposit
$\underline{\mathrm{H}_{\mathrm{o}}}:$ Vector of means is equal to a vector of zeros

| Variable | Obs | Mean | Std. Dev. | Min | Max |
| :--- | :--- | :--- | :--- | :--- | :--- |
| GCB | 11 | 67.78818 | 28.32683 | 33.64 | 115.27 |
| ADB | 11 | 77.25182 | 28.93444 | 6.44 | 116 |
| NIB | 11 | 81.44091 | 33.06427 | 55.23 | 174.46 |
| Hotelling's T-squared $=199.84217$ |  |  | Pr ob $>\mathrm{F}(3,8)=$ | 0.0000 |  |

$\mathrm{F}(3,8)=53.2912$
Source: Computed from data presented in Annual Reports

The average of net loans to total deposit for GCB, ADB, and NIB reported in Table 4.20 are $67.78818,77.25182$, and 81.44091 respectively. The probability value of 0.0000 however rejects the null hypothesis that vector of means are all zeros. The conclusion therefore is that the mean net loan to total deposit for the three banks is statistically different from each other at 5\% level of significance. Inferring from Table
4.20, NIB recorded the highest average in terms of net loans to total deposits followed by ADB and GCB respectively. From the audited annual financial report between 2004 and 2014, NIB had more deposits from clients, borrowed and managed funds from the Government of Ghana was able to convert more than $50 \%$ into loans throughout the period.

### 4.3 Portfolio/Credit Quality Ratios

### 4.3.1 Non-Performing Loans to Total Loans

Figures from table 4.21 below indicate that GCB recorded impressive ratios. It recorded its highest ratio of $26.00 \%$ in 2011. It could be seen that GCB maintained good books
in terms of loans and advances between the years 2008 and 2006. It recorded the lowest ratio of $2.00 \%$ in the years 2008 and 2007 and a rate of $3.00 \%$ in 2006 .

For the period under consideration NIB recorded the highest ratio of $47.00 \%$ in the year 2009. This indicates that $47.00 \%$ of the total loan portfolio was not performing and the interest income from loans and advances was from only $53.00 \%$ of the total loans. The lowest ratio of $14.00 \%$ was recorded in 2012 . The reason for the significant reduction from $34.00 \%$ in 2011 was as result of NIB setting up a subsidiary asset recovery company. All the non-performing loans as at the end of year 2011 were transferred to the subsidiary company to recover.

From table 4.21 it can be seen that ADB had difficulties with non-performing loans between 2007 and 2009. It recorded $63.43 \%$ in 2007, $47.95 \%$ in 2009 and the highest of $88.93 \%$ for the 11 years period in 2008. As a means to curtail the increase of bad loans ADB in the years between 2010 and 2012 suspended giving loans to some sectors of the economy like the construction sector and embarked on rigorous loan recoveries. These exercise reduced the non-performing loans to total loans ratio to the lowest of $6.68 \%$ in 2011.

Table 4.21: Non-Performing Loans to Total Loans

| Bank |  | $2012 \quad 2011$ | 2010 | 2009 | 2008 | 2007 | 2006 | 2005 | 2004 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 20142013 |  |  |  |  |  |  |  |  |  |
| GCB 13.50 | 12.42 | $17.00 \quad 26.0$ | 15.00 | 19.00 | 2.00 | 2.00 | 3.00 | 15.00 | 17.00 |
| NIB 27.50 | 24.00 | $14.00 \quad 34.00$ | 38.82 | 47.00 | 45.00 | 23.00 | 28.00 | 29.00 | 18.00 |
| ADB 23.29 | 12.42 | 10.536 .68 | 11.82 | 47.95 | 88.93 | 63.43 | 23.63 | 22.96 | 30.99 |

Source: Computed from data presented in Annual Reports

Table 4.22: Hotelling Mean Test Results for Non-Performing Loans to Total Loans
$\mathrm{H}_{\mathrm{o}}$ : Vector of means is equal to a vector of zeros

| Variable | Obs | Mean | Std. Dev. | Min | Max |
| :--- | :--- | :--- | :--- | :--- | :--- |
| GCB | 11 | 12.90182 | 7.664727 | 2 | 26 |
| ADB | 11 | 31.14818 | 25.6839 | 6.68 | 88.93 |
| NIB | 11 | 29.84727 | 10.50612 | 14 | 47 |
| Hotelling's T-squared $=153.22081$ | Prob $>$ F $(3,8)=$ <br> 0.0000 |  |  |  |  |

$\mathrm{F}(3,8)=40.8589$
Source: Computed from data presented in Annual Reports

The average of non-performing loans to total loans for GCB, ADB, and NIB reported in Table 4.22 are $12.90182,31.14818$, and 29.84727 respectively. The probability value of 0.0000 however rejects the null hypothesis that vector of means are all zeros. The conclusion therefore is that the mean non-performing loans to total loans for the three banks are statistically different each other at $5 \%$ level of significance. Statistically, ADB recorded the highest average in terms of non-performing loans to total loans followed by NIB and GCB respectively. From the audited report between

2007 and 2009, majority of ADB"s loan portfolio were granted to the construction sector of the economy and the delayed payment by the government to contractors made the loans slipped into non-performing.

### 4.3.2 Impairment Charge to Gross Loans

GCB recorded low ratios. The ratios for the period under consideration were higher than that of ADB but lower than the ratios NIB recorded. The highest ratio was recorded in 2010 and it was $6.33 \%$. A significant portion of the loans slipped from performing to non-performing and as result an impairment charge of $\mathrm{GH} \not \subset 70,931,000$ was made in the year 2010. The lowest ratio of $0.24 \%$ was recorded in the year 2005 .

From the Table 4.23 below NIB recorded the highest ratio of $75.79 \%$ in the year 2012. The bank wrote off its non-performing loans as at the end of 2011 to a subsidiary asset recovery company it established to recover those bad loans. It recorded the lowest ratio of $0.70 \%$ in 2006. This was basically as a result of $36 \%$ increase in gross loans from 2005 to 2006.

From table 4.23 below, ADB recorded ratios of less than $1 \%$. The highest was $0.23 \%$ in 2005 and the lowest being $0.01 \%$ and it was recorded in the years 2007, 2010 and 2011. This is an indication that most of the loans and advances were under the unclassified loans and advances. The unclassified loans and advances are those loans classified as current and other loan especially mentioned (OLEM). Provisions rate for these loans and advances are lower hence lower impairment charged.

Table 4.23: Impairment Charge to Gross Loans

Bank $201420132012 \quad 2011 \quad 2010 \quad 2009 \quad 2008 \quad 2007 \quad 2006 \quad 2005 \quad 2004$

| GCB 1.75 | 0.96 | 1.07 | 1.74 | 6.33 | 2.78 | 0.80 | 1.09 | 0.44 | 0.24 | 0.40 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |


| NIB | 2.26 | 5.36 | 75.79 | 4.45 | 4.39 | 7.91 | 12.54 | 3.23 | 0.70 | 6.21 | 3.68 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |


| ADB 0.05 | 0.04 | 0.03 | 0.01 | 0.01 | 0.04 | 0.02 | 0.01 | 0.04 | 0.23 |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  | 0.44 |  |  |  |  |  |

Source: Computed from data presented in Annual Reports

Table 4.24: Hotelling Mean Test Results for Impairment Charge to Gross Loans
$\mathrm{H}_{\mathrm{o}}$ : Vector of means is equal to a vector of zeros

| Variable | Obs | Mean | Std. Dev. | Min | Max |
| :--- | :--- | :--- | :--- | :--- | :--- |
| GCB | 11 | 1.6 | 1.733009 | 0.24 | 6.33 |
| ADB | 11 | 0.083636 | 0.133586 | 0.01 | 0.44 |
| NIB | 11 | 11.50182 | 21.55151 | 0.7 | 75.79 |
| Hotelling's T-squared $=29.166203$ |  | Prob $>\mathrm{F}(3,8)=$ | 0.0093 |  |  |
| F(3,8) = 7.7777 |  |  |  |  |  |

Source: Computed from data presented in Annual Reports

The average of impairment charge to gross loans for GCB, ADB, and NIB reported in Table 4.24 are $1.6,0.083636$, and 11.50182 respectively. The probability value of 0.0093 however rejects the null hypothesis that vector of means are all zeros. The conclusion therefore is that the mean impairment charges to gross loans for the three banks are statistically different from each other at 5\% level of significance. Inferring from Table 4.24, ADB recorded the lowest average in terms of impairment charge to gross loans followed by GCB and NIB statistically. From the audited annual financial report of ADB and $\mathrm{NIB}, \mathrm{ADB}$ recorded the lowest level of impairment charge to gross loans because most of its loans were classified as current and OLEM whiles NIB recorded the highest level because most of its loans were in the sub-standard and loss category of loan classification.

### 4.3.3 Loan Portfolio Profitability

Similar to NIB, GCB"'s loan portfolio was not profitable in the years 2012, 2011, 2005 and 2004. The levels of losses were however lower compared to the percentages NIB recorded. The highest loss recorded was $16.79 \%$ and that was in 2005. The lowest profitability was recorded in 2014 with a percentage of 12.16.

From table 4.25 below, NIB recorded negative ratios in the 8 different years. This is an indication that NIB"s loan portfolio was not profitable during these years. The highest loan portfolio profitability was recorded in 2014. It was $5.56 \%$. It was mainly due to granting of new loans and advances of over GH $¢ 257,000,000$ in the year 2014 alone. All these loans were classified as current loans. The highest negative ratio of 36.55\% was recorded in 2011. NIB noticed the non-performing nature of their loan portfolio and as a result set up a subsidiary company in 2012 to recover the nonperforming loans. It recorded a positive loan portfolio profitability of $1.15 \%$ the same year. This again indicates that the bank"s profitability for the years the ratios were negative were coming from non-core banking operations. Examples of items that pushed profitability during these periods were interest from investment, dividend etc.

ADB"s loan portfolio was not profitable in years 2009 and 2007 where it recorded $0.19 \%$ and $-3.54 \%$ respectively. The bank recorded profit during these periods but loan portfolio was not major contributing factor. From table 16 below, the loan portfolio has been profitable continuously from 2010 to 2014 which is a good sign.

The highest portfolio profitability was recorded in 2004 where a percentage of 16.84 was recorded.

Table 4.25: Loan Portfolio Profitability

| Bank 2014 | $\underline{2013}$ | $\underline{2012}$ | $\underline{2011}$ | $\underline{2010}$ | $\underline{2009}$ | $\underline{2008}$ | $\underline{2007}$ | $\underline{2006}$ | $\underline{2005}$ | $\underline{2004}$ |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| GCB | 12.16 | 7.90 | -0.98 | -1.11 | $\underline{5} 7.50$ | 12.11 | 11.21 | 7.51 | 11.33 | -16.79 | -2.34 |
| NIB | 5.56 | -4.20 | 1.15 | -36.55 | - | - | - | 2.42 | -1.76 | -13.45 | -9.35 |
| ADB 9.93 | 11.80 | 14.41 | 11.45 | 12.60 | -0.19 | 0.79 | - | 13.22 | 13.18 | 16.84 |  |

[^0]Table 4.26: Hotelling Mean Test Results for Loan Portfolio Profitability

| Ho: Vector of means is equal to a vector of zeros |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Variable | Obs | Mean | Std. Dev. | Min | Max |
| GCB | 11 | 5.318182 | 9.757404 | -16.79 | 17.5 |
| ADB | 11 | 9.135455 | 6.801411 | -3.54 | 16.84 |
| NIB | 11 | -9.82 | 12.31138 | -36.55 | 5.56 |
| Hotelling's T-squared $=44.174173$ |  | Prob $>\mathrm{F}(3,8)=$ | 0.0026 |  |  |
| $\mathrm{~F}(3,8)=$ | 11.7798 |  |  |  |  |

Source: Computed from data presented in Annual Reports

The average of loan portfolio profitability for GCB, ADB, and NIB reported in Table 4.26 are $5.318182,9.135455$, and -9.82 respectively. The probability value of 0.0026 however rejects the null hypothesis that vector of means are all zeros. The conclusion therefore is that the mean loan portfolio profitability for the three banks is statistically different from each other at 5\% level of significance. Thus statistically, loan portfolio profitability for ADB is the highest followed by GCB and NIB respectively.

According to the audited annual financial report of ADB , most of its loans were classified under current and OLEM categories and that were the reasons for its highest level of loan portfolio profitability. The negative NIB mean portfolio profitability was as a result of most of its loans being classified as sub-standard and loss category as was captured in the audited annual financial report of the bank between 2004 and 2014.

### 4.4 Capital Structure

### 4.4.1 Capital Adequacy Ratio

The capital adequacy ratio (CAR) is the ratio of the Bank"s capital to risk. Regulators track a Bank"s CAR to ensure that it can absorb a reasonable amount of loss and compliance with statutory requirement. The regulated required minimum CAR is $10 \%$.

GCB recorded the lowest ratio in 2010 though it was not below the regulated required minimum percentage. It recorded the highest ratio of $32.56 \%$ in 2014. The major contributing factor of highest ratio was the $92.18 \%$ increase in the retained earnings from GH $\not \subset 197,280,000$ in 2013 to $\mathrm{GH} \not \subset 379,141,000$ in 2014.

As shown in table 4.27 below NIB met the regulated required minimum percentage throughout the period under consideration with the exception of 2008 that it recorded 8.66\%. It did not have enough capital to absorb the reasonable amount of loss. As a result of this NIB increased its capital from GH\& $20,000,000$ in 2008 to $\mathrm{GH} \not \subset 70,000,000$ in 2009. The highest CAR that NIB recorded was $22.51 \%$ and that was in 2013. The other reserves that increased by $273.26 \%$ from 2012 to 2013 was the major contributing factor.

Throughout the period under consideration ADB has never fallen short of the regulated required minimum percentage. The lowest that it has recorded was $10.08 \%$ in 2004 and the highest was $16.00 \%$ and it was recorded in 2008. The highest CAR recorded in 2008 was mainly due to an increased in stated capital from $\mathrm{GH} \not 420,000,000$ in 2007 to $\mathrm{GH} \not \subset 50,000,000$ in 2008.

Table 4.27: Capital Adequacy Ratio

| Bank 2014 | $\underline{2013}$ | $\underline{2012}$ | $\underline{2011}$ | $\underline{2010}$ | $\underline{2009}$ | $\underline{2008}$ | $\underline{2007}$ | $\underline{2006}$ | $\underline{2005}$ | $\underline{2004}$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| GCB 32.56 | 18.17 | 14.90 | 11.00 | 10.00 | 12.86 | 15.85 | 16.00 | 14.80 | 12.00 | 13.58 |
| NIB 21.68 | 22.51 | 17.90 | 11.36 | $\underline{10.53}$ | 14.37 | 8.66 | 14.00 | 21.42 | 23.42 | 21.05 |
| $\underline{\text { ADB 10.48 }}$ | $\underline{13.02}$ | $\underline{10.15}$ | $\underline{10.76}$ | $\underline{12.86}$ | $\underline{15.85}$ | $\underline{16.00}$ | $\underline{14.82}$ | $\underline{13.20}$ | $\underline{11.58}$ | $\underline{10.08}$ |

Source: Computed from data presented in Annual Reports

Table 4.28: Hotelling Mean Test Results for Capital Adequacy Ratio
$\mathrm{H}_{\mathrm{o}}$ : Vector of means is equal to a vector of zeros

| Variable | Obs | Mean | Std. Dev. | Min | Max |
| :--- | :---: | :--- | :--- | :--- | :--- |
| GCB | 11 | 15.61091 | 6.104635 | 10 | 32.56 |
| ADB | 11 | 12.61818 | 2.21189 | 10.08 | 16 |
| NIB | 11 | 16.99091 | 5.379311 | 8.66 | 23.42 |
| Hotelling's T-squared $=901.17561$ |  | Prob $>\mathrm{F}(3,8)=$ | 0.0000 |  |  |
| $\mathrm{~F}(3,8)=240.3135$ |  |  |  |  |  |

Source: Computed from data presented in Annual Reports

The average of capital adequacy ratio for GCB, ADB, and NIB reported in Table 4.28 are $15.61091,12.61818$, and 16.99091 respectively. The probability value of 0.0000 however rejects the null hypothesis that vector of means are all zeros. The conclusion therefore is that the mean capital adequacy ratio for the three banks is statistically different from each other at 5\% level of significance. Inferring from Table 4.28, NIB recorded the highest mean in term its capital adequacy ratio. Thus statistically, the capital adequacy ratio for NIB is highest followed by GCB and ADB respectively.

According to audited reports of NIB from the year 2004 to 2014, NIB had a lot of deposits from its clients and more borrowed and managed funds and this accounted for the highest level of capital adequacy ratio it recorded.

## CHAPTER FIVE

## SUMMARY OF THE FINDINGS, CONCLUSIONS AND RECOMMENDATION

### 5.0 Introduction

The previous chapters dealt with the background of the study, statement of the problem, objectives of the study, research questions and significance of the study. Related relevant literature on financial statement analysis and performance measurement analysis were also reviewed. Similarly, the methodology of the study, discussions, analysis and interpretation of the findings were also presented. In this chapter, a brief summary of the findings of the study, followed by conclusions and recommendations are presented.

### 5.1 Summary of Findings

The general objective of the study was to analyze and compare financial performance of state established banks in Ghana. Specifically, the study was intended to:

1. Evaluate and compare the profitability performance of GCB Bank, National Investment Bank Limited and Agricultural Development Bank Limited from

2004 to 2014.
2. Analyze liquidity performance of these Banks between 2004 and 2014.
3. Assess Portfolio/credit quality of the Banks from 2004 to 2014.
4. Evaluate if the banks meet the regulated minimum capital adequacy ratio.

The study population was all state owned banks in Ghana and these included GCB Bank, National Investment Bank (NIB) Limited and Agricultural Development Bank (ADB) Limited. The research adopted descriptive financial ratio analysis to measure,
describe and analyse the financial performance of GCB Bank, NIB and ADB between the period 2004 and 2014. Qualitative and Quantitative research techniques were used to conduct the study. The research relied solely on secondary data as described in detail under the "sources of data" section.

The following findings were made:
Firstly, GCB consistently made profit during the period. ADB did same. NIB made some losses in the years 2010 and 2005 which resulted in negative percentages in ratios like the return on equity, profit after tax margin and return on assets. During these two years NIB could not make enough income to match the expenses.

Secondly, none of the three banks recorded a consistent cost income ratio.
They kept swinging significantly. GCB"s highest recording was as a result of an increase in operating expenses. NIB also could not make enough income to cover up the operating cost in 2006 and hence recoded its highest ratio. ADB did impressively well in the years 2012 to 2014. This was as a result of total income going up significantly from the previous years with a minimal cost.

Furthermore, it came out that $\mathrm{GCB}^{\text {ces }}$ non-interest income to operating income was not the best as compared with NIB and ADB during the period under review. This shows that most of the total income of GCB was from loans and advances and as such if customers fail to pay their loans, it will affect their liquidity and hence their operations. However, NIB and ADB did very well in terms of noninterest income to operating income. This shows that in times of default by customers, the banks can comfortably continue to have liquidity and make profit.


#### Abstract

Also, all the three banks did well in terms of liquidity. They maintained a good level of liquidity which came as a result of the banks going for borrowed and managed funds. Most of these liquid funds were converted into liquid earning assets like government securities and overnight money market borrowings. This put the banks in a position to pay off their financial obligations when they are due and again make returns from those invested in earning assets.


Banks are primarily in business to mobilize deposits and grant loans. Out of the total deposit mobilized banks are supposed to keep $10 \%$ as primary reserve with the Central Bank. They invest between $15 \%$ to $25 \%$ in government securities and other liquid assets to serve as the secondary reserve. The remaining $75 \%$ to $65 \%$ are left for loan creation and other things. During the period under review all the three banks showed a positive signs. However, all the three banks at some point in time recorded a ratio of more than $100 \%$. They were as a result of borrowing by the banks during those years.

In assessing portfolio/credit quality of the three banks between 2004 and 2014, the results showed that GCB maintained good books among all the three banks. This was due to effective and efficient monitoring and recovery of facilities granted by the bank. Analysis of the financial statements pointed out that NIB wrote off significant amount of their non-performing loans off from $47 \%$ in 2009 to $14 \%$ in 2012. As a means of curtailing the increase of bad loans, ADB suspended giving loans to some sectors of the economy like construction and strengthened the portfolio management and recovery department of the bank to embark on rigorous loan recoveries. This reduced non-performing loans from $88.93 \%$ in 2008 to $6.68 \%$ in 2011.

The data also pointed out that among the three banks, ADB had the best impairment charges to gross loans and advances over the 11 year period recording less than $1 \%$. This means that most of their loans were classified as current and OLEM (Other Loans Exceptionally Mentioned). GCB ratios for the period under consideration were lower than NIB which had most of its loans slipping from performing to non-performing. The results indicated that out of the three banks, ADB"s loan portfolio profitability was better than GCB and NIB. For eight continuous years, NIB recorded negative ratios. The fact that these banks made negative portfolio profitability does not mean they did not make profit, they made profit but these profits were not coming from loans but other non-core banking operations such as interest from investments, dividends etc.

Furthermore, the study sought to determine whether all the banks meet the regulated minimum capital adequacy ratio by the Bank of Ghana. Analysis of the data shows that all the banks met the regulated required minimum capital adequacy ratio of $10 \%$ over the period under review except NIB which had
$8.66 \%$ in 2008. As a result of that, it increased its capital from GH $¢ 20,000,000.00$ in 2008 to $\mathrm{GH} \Varangle 70,000,000.00$ in 2009. This shows that the banks had adequate capital to operate as required by the regulators.

### 5.2 Recommendations

## SANE

In view of the findings of the study, the following recommendations are made: Firstly, the banks should be creative and innovative in asset and product creation to be able to increase their total income. The banks should use technology to improve their works and services efficiently.

Not all, they should try to reduce the cost of operations whiles increase their total income to be able to meet their cost income ratio.

Furthermore, the banks should ensure that they are able to meet the Bank of Ghana $10 \%$ of total deposits as primary reserve, make self-imposed secondary reserve of between $15-25 \%$ of total deposits. The remaining should be used for loan creation. The banks should have the self-imposed secondary reserve to create enough liquid earning assets that they can easily convert to cash in terms of liquidity challenges.

In addition, the banks should have a strong and well-resourced credit risk department that will review credit papers to eliminate all the credit risks before the credit papers are approved and disbursed. There should also be constant loan monitoring and rigorous loan recovery.

To be able to consistently meet the regulated minimum capital adequacy ratio, the shareholders (Government) should be investing capital into these banks.

ADB and NIB should be listed on the Ghana Stock Exchange to enable them raise enough capital and dilute the percentage of government"s shareholding. This will enable them raise capital as and when required without much difficulties

### 5.3 Conclusions

The findings clearly revealed similarities and differences at both company and industry levels. While some strengths and weaknesses were industry specific, others related specifically to the banks.

Management of costs and resources played a vital role in the financial performance of the banks. For instance during the period under review all the banks did a better job at maximizing returns on equity and assets though NIB showed negative signs in some years.

The study also confirmed the importance of liquidity management. The trend showed that all the banks were in an impressive liquidity position to meet their financial obligations when they are due. A good percentage of deposits where used in loan creation.

The study also concluded that good credit portfolio has a good impact on banks financial performance. GCB and ADB showed good credit quality portfolio in the study. NIB stood out clearly as the weakest bank in this study in terms of loan portfolio quality.

Lastly, it was noted that all the Banks met the regulated required minimum capital adequacy ratio of $10 \%$. NIB missed it narrowly in 2008, equity capital of GH¢ 50 million was injected the following year which turned things round for the bank.

## REFERENCES

Agricultural Development Bank Limited (2004). Audited Annual report and financial statement 2004, Accra.

Agricultural Development Bank Limited (2005). Audited Annual report and financial statement 2005, Accra.

Agricultural Development Bank Limited (2006). Audited Annual report and financial statement 2006, Accra.

Agricultural Development Bank Limited (2007). Audited Annual report and financial statement 2007, Accra.

Agricultural Development Bank Limited (2008). Audited Annual report and financial statement 2008, Accra.

Agricultural Development Bank Limited (2009). Audited Annual report and financial statement 2009, Accra.

Agricultural Development Bank Limited (2010). Audited Annual report and financial statement 2010, Accra.

Agricultural Development Bank Limited (2011). Audited Annual report and financial statement 2011, Accra.

Agricultural Development Bank Limited (2013). Audited Annual report and financial statement 2013, Accra.

Agricultural Development Bank Limited (2014). Audited Annual report and financial statement 2014, Accra.

Anne-Lucie L., Jennifer I., Patricia M. and Mathew B.: Overview of the Outreach and Financial Performance of Microfinance Institutions in Africa, April 2005.

Antwi-Boasiako, O. Contemporary studies on corporate governance, September 2013 (www.bomaneantwi.com)

Bank of Ghana Act 616, (2002): Ghana Publishing Company, Accra.

Bank of Ghana. History and evolution of banks from www.bog.gov.gh

Bragg, S.M. (2012). Financial analysis: A controller"s guide (2 ${ }^{\text {nd }}$ Edition), John Wiley \& Sons, inc, Hoboken, New Jersey.

Brigham, E. F., Gapenski, L. C. \&Ehrhardt, M. C. (1999).Financial management theory and practice, New York: Dryden Press.

Brillof, A. (June 1999). www.investorhome.com

Brown, C. J. Dutton, M. M. \&Rietz, T. A. (2000). Financial statement analysis: Curriculum design for use with the Iowa electronic markets, retrieved from www.bizweb.iowa.uiowa.edu/iem/modules/finstatement.ppt

Brownbridge, M \& Gockel, A.F. The impact of financial sector policies on banking in Ghana (February 2014), www.ids.ac.uk.

Ghana Companies Regulation Code (1963).Act 179, sections 9 (3-4), 123-133, Ghana Publishing Company, Accra.
Din Sangmi, M.U. (2010), "Analysing Financial Performance of Commercial Banks in India: Application of CAMEL Model" . Pak. J. Commer. Soc. SciVol 4 (1), 4055

Dransfield, R. (2002). Financial information made easy, Cheltenham: Nelson Thornes Ltd.

Garrison, R. H. \& Noreen, E. W. (2003).Managerial accounting, New York: McGraw-Hill

GCB Bank Ltd (2004). Audited Annual report and financial statement 2004, Accra.

GCB Bank Ltd (2005). Audited Annual report and financial statement 2005, Accra.

GCB Bank Ltd (2006). Audited Annual report and financial statement 2006, Accra.

GCB Bank Ltd (2007). Audited Annual report and financial statement 2007, Accra.

GCB Bank Ltd (2008). Audited Annual report and financial statement 2008, Accra.

GCB Bank Ltd (2009). Audited Annual report and financial statement 2009, Accra.

GCB Bank Ltd (2010). Audited Annual report and financial statement 2010, Accra.

GCB Bank Ltd (2011). Audited Annual report and financial statement 2011, Accra.

GCB Bank Ltd (2012). Audited Annual report and financial statement 2012, Accra.

GCB Bank Ltd (2013). Audited Annual report and financial statement 2013, Accra. GCB

Bank Ltd (2014). Audited Annual report and financial statement 2014, Accra.

Journal on Financial Sector Adjustment Reforms (FINSAP 1988-1991), Ghana Publishing Company, Accra.

Kiyota H.: Efficiency of Commercial Banks in Sub Saharan Africa: A Comparative Analysis of domestic and Foreign Banks, 2011.

Larson, K. D., Wild, J. J. \& Chiappetta, B. (1999).Fundamental accounting principles, New York: McGraw-Hill.

Mabwe K. and Robert W.: A financial Ratio Analysis of Commercial Bank Performance in South Africa, December 2010.

National Investment Bank Ltd (2004). Audited Annual report and financial statement 2004, Accra.

National Investment Bank Ltd (2005). Audited Annual report and financial statement 2005, Accra.

National Investment Bank Ltd (2006). Audited Annual report and financial statement 2006, Accra.


National Investment Bank Ltd (2007). Audited Annual report and financial statement 2007, Accra.

National Investment Bank Ltd (2008). Audited Annual report and financial statement 2008, Accra.

National Investment Bank Ltd (2009). Audited Annual report and financial statement 2009, Accra.
National Investment Bank Ltd (2010). Audited Annual report and financial statement 2010, Accra.

National Investment Bank Ltd (2011). Audited Annual report and financial statement 2011, Accra.

National Investment Bank Ltd (2012). Audited Annual report and financial statement 2012, Accra. SANE

National Investment Bank Ltd (2013). Audited Annual report and financial statement 2013, Accra.

National Investment Bank Ltd (2014). Audited Annual report and financial statement 2014, Accra.

Osakunor, D.N.M (2009), The evolution of banking in Ghana. www.theevolutionofbankinginghana.blogspot.com.

Pinches, G. E. (1994).Financial management, New York: Harper Collins College Publishers

Wild, J. J. (2005).Financial accounting information for decisions, New York: McGraw-Hill.

Williams, J. R., Haka, S. F., Bettner, M. S. \&Carcello, J. V. (2006).Financial accounting, New York: McGraw-Hill.
www.agricbank.com www.answers.com
www.gcbbank.com.gh
www.investorwords.com
www.nibghana.net www.wisegeek.com

## APPENDICES APPENDIX

A


| Other Income | - | - | - | - | - | 270,833.00 | 257,891.00 | 17,313,561.00 | 1,289,200.00 | 8,832.90 | 4,512.60 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Share of Profit of Associates, ne of tax | - | - | - | - | - |  |  |  |  |  |  |
| Profit before tax | 283,226,000.00 | 288,904,000.00 | 188,399,000.00 | 29,681,000.00 | 68,611,000.00 | 24,144,824.00 | 58,310,746.00 | 38,862,440.00 | 38,680,400.00 | 22,903.70 | 23,180.40 |
| Income tax expense | 112,379,000.00 | 87,715,000.00 | 49,754,000.00 | 12,998,000.00 | 20,609,000.00 | 1,505,965.00 | 11,923,655.00 | 14,012,918.00 | 11,879,100.00 | 8,524.10 | 4,531.50 |
| Exceptional Item | - | - | - |  | - | 4,521,708.00 | 9,382,240.00 | - | 1,260,700.00 | - | - |
| National Reconstruction Levy | - | - |  |  |  | - | - | - | - | 1,717.80 | 2,318.00 |
| Profit for the year | 170,847,000.00 | 201,189,000.00 | 138,645,000.00 | 16,683,000.00 | 48,002,000.00 | 18,117,151.00 | 37,004,851.00 | 24,849,522.00 | 25,540,600.00 | 12,661.80 | 16,330.90 |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  | 0 |  |  |  |  |  |  |
|  |  |  |  |  | , |  |  |  |  |  |  |
| Interest Income (Loans and Advances) | 282,287,000.00 | 224,339,000.00 | $136,881,000.00$ | 127,278,000.00 | 329,977,000.00 | 229,161,877.00 | 144,965,249.00 | 75,262,723.00 | 62,490,200.00 | 407,518.00 | 373,149.00 |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |


| GCB BANK LIMITED |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| STATEMENT OF FINANCIAL POSITION |  |  |  |  |  |  |  |  |  |  |  |
|  | 2014 | 2013 | 2012 | 2011 | 2010 | 2009 | 2008 | 2007 | 2006 | 2005 | 2004 |
| Assets |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
| Cash and Cash Equivalents | 758,081,000.00 | 338,797,000.00 | 360,023,000.00 | $433,430,000.00$ | $346,212,000.00$ | 147,103,052.00 | 202,811,774.00 | 115,338,071.00 | 72,520,336.00 | 73,666.10 | 67,889.60 |
| Short Term Investments | - | - | - |  | $\cdots$ | 105,857,373.00 | 116,371,223.00 | - | - | - | - |
| Medium Term Investments | - | - | - | - | - | 110,000,000.00 | 110,000,000.00 | - | - | - | - |
| Government Securities | 1,857,337,000.00 | 1,711,948,000.00 | 1,510,373,000.00 | 1,195,981,000.00 | 452,461,000.00 | - | - | 202,996,512.00 | 215,595,428.00 | 181,151.80 | 196,879.00 |
| Advances to Bank | 107,407,000.00 | 170,321,000.00 | 37,978,000.00 | 217,179,000.00 | 179,706,000.00 | 186,307,292.00 | 57,166,284.00 | 21,681,861.00 | 84,374,500.00 | 36,756.60 | 59,410.60 |
| Loans and Advances to customers | 1,240,577,000.00 | 960,707,000.00 | 847,872,000.00 | 476,211,000.00 | 995,356,000.00 | 1,265,516,727.00 | 1,087,118,928.00 | 742,696,325.00 | 364,538,500.00 | 256,157.40 | 209,506.10 |
| Investment Securities:Available for-sale | 6,811,000.00 | 4,900,000.00 | 3,282,000.00 | 2,969,000.00 | 4,113,000.00 | - | - | - | - | - | - |
| Investment in subsidiary | - | - | - |  |  | 20.00 | 20.00 | 20.00 | 20.00 | 0.10 | 0.10 |
| Investment in associates | 30,126,000.00 | $30,126,000.00$ | $30,126,000.00$ | 16,126,000.00 | $3,876,000.00$ |  |  |  |  |  |  |
| Investment in other equity securities | 113,000.00 | 113,000.00 | 113,000.00 | 64,000.00 | $64,000.00$ | $8,287,004.00$ | 15,453,659.00 | 4,973,757.00 | 5,020,800.00 | 3,181.10 | 3,113.60 |
| Deferred tax asset | 26,890,000.00 | 15,495,000.00 | 11,704,000.00 | $11,379,000.00$ | 4,745,000.00 | 8,527,324.00 | 2,312,309.00 | - | - | - | - |
| Property and equipment | 123,936,000.00 | 81,399,000.00 | 73,404,000.00 | 53,955,000.00 | 54,684,000.00 | 49,654,822.00 | 41,085,138.00 | 29,948,050.00 | 23,182,200.00 | 16,155.30 | 11,875.80 |
| Intangible Assets | 12,162,000.00 | 3,954,000.00 | 4,062,000.00 | 1,841,000.00 | 789,000.00 |  | - | - | - |  |  |
| Other Assets | 63,601,000.00 | 73,340,000.00 | 93,131,000.00 | $39,072,000.00$ | 34,355,000.00 | 35,829,587.00 | 13,477,660.00 | 24,481,971.00 | 10,760,531.00 | 16,103.60 | 8,899.40 |
| Income Tax asset | 5,778,000.00 |  |  | 6,357,000.00 |  |  | - | - | - | 3,299.30 | - |
| Total Assets | 4,232,819,000.00 | 3,391,100,000.00 | 2,972,068,000.00 | 2,454,564,000.00 | 2,076,361,000.00 | 1,917,083,201.00 | 1,645,796,995.00 | 1,142,116,567.00 | 775,992,315.00 | 586,471.30 | 557,574.20 |
|  |  |  |  | SANIE | $\square$ |  |  |  |  |  |  |
| Liabilities |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
| Deposits from Customers | 3,078,071,000.00 | 2,630,283,000.00 | 2,334,608,000.00 | 2,061,390,000.00 | 1,584,055,000.00 | 1,259,470,137.00 | 1,030,106,198.00 | 839,382,573.00 | 634,572,700.00 | 472,994.00 | 426,573.30 |
| Due to Banks and Financial Institutions | - | - | - | - | - | - | 91,337,682.00 | 58,044,439.00 | 640,495.00 | 845.20 | 1,043.30 |



## APPENDIX B

| GCB BANK's RATIOS |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | - 2014 | 2013 | 2012 | 2011 | 2010 | 2009 | 2008 | 2007 | 2006 | 2005 | 2004 |
| Profitability \& Efficiency Ratios | Profitability \& Efficiency Ratios | - |  |  |  |  |  |  |  |  |  |  |
| Return on equity(ROE) | Profit After Tax/Equity | 25.89\% | 44.99\% | 49.07\% | 9.84\% | 27.65\% | 9.11\% | 18.15\% | 15.08\% | 28.69\% | 18.06\% | 28.43\% |
| Profit after tax margin | Profit After Tax/Total Income | - 20.47\% | 35.23\% | 32.99\% | 5.77\% | 14.49\% | 9.01\% | 19.94\% | 16.95\% | 20.94\% | 12.29\% | 19.56\% |
| Return on assets(ROA) | Profit After Tax/Total Asset | 4.04\% | 5.93\% | 4.66\% | 0.68\% | 2.31\% | 0.95\% | 2.25\% | 2.18\% | 3.29\% | 2.16\% | 2.93\% |
| Total operating income/total assets | Total Operating Income/Total Asset | 19.71\% | 16.84\% | 14.14\% | 11.79\% | 15.95\% | 10.49\% | 11.28\% | 12.83\% | 15.71\% | 17.56\% | 14.97\% |
| Cost Income Ratio | Non Interest Expenses/Operating Income | 51.31\% | 47.35\% | 52.65\% | 86.06\% | 57.88\% | 23.58\% | 23.31\% | 67.83\% | 66.92\% | 70.62\% | 60.44\% |
| Non-interest income to operating income | Non-Interest Income/Operating Income | 28.37\% | 19.47\% | 22.64\% | 28.51\% | 15.45\% | 34.48\% | 28.84\% | 38.73\% | 28.31\% | 31.96\% | 28.33\% |
| Non-interest income to earning asset | Non-Interest Income/Earning Asset | 7.30\% | 3.86\% | 3.92\% | 4.32\% | 3.13\% | 4.14\% | 3.86\% | 5.84\% | 5.16\% | 6.90\% | 5.04\% |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Portfolio Quality Ratios | Portfolio Quality Ratios |  | , |  |  |  |  |  |  |  |  |  |
| Non performing loans to total loans | Non Performing Loans/Gross Loans | 13.50 | 12.42 | 17.00 | 26.00 | 15.00 | 19.00 | 2.00 | 2.00 | 3.00 | 15.00 | 17.00 |
| Imparirment charges to gross loans | Impairment Charge/Gross Loans | 1.75\% | 0.96\% | 1.07\% | 1.74\% | 6.33\% | 2.78\% | 0.80\% | 1.09\% | 0.44\% | 0.24\% | 0.40\% |
| Loan portfolio profitability | Int.Inc (Loans \& Adv) - Prov. Bad\&Doubtful/Net Loans | $12.16 \%$ | 7.90\% | -0.98\% | $-1.11 \%$ | $17.50 \%$ | 12.11\% | 11.21\% | 7.51\% | 11.33\% | 16.79\% ${ }^{-}$ | -2.34\% |
|  |  |  |  | $\square$ | - |  |  |  |  |  |  |  |
|  |  |  | - | $\square$ | - |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Liquidity Ratios | Liquidity Ratios |  |  |  |  |  |  |  |  |  |  |  |
| Liquid asset to total deposits | Liquid Asset /Total Deposits | 85.19\% | 78.15\% | 80.26\% | 79.19\% | 50.68\% | 28.82\% | 41.66\% | 37.92\% | 45.40\% | 53.87\% | 62.07\% |
| Liquid asset to total asset | Liquid Asset /Total Asset | 61.95\% | 60.62\% | 63.04\% | 66.50\% | 38.66\% | 18.93\% | 26.08\% | 27.87\% | 37.13\% | 43.45\% | 47.49\% |
| Liquid assets to earning asset | Liquid Asset/Earning Asset | 80.87\% | 71.42\% | 77.11\% | 85.53\% | 49.08\% | 21.66\% | 30.96\% | 32.74\% | 43.03\% | 53.39\% | 56.46\% |
| Net Loans to total deposit | Net Loans/Total Deposit | 43.79\% | 43.00\% | 37.94\% | 33.64\% | 74.18\% | 115.27\% | 111.08\% | 91.06\% | 70.74\% | 61.93\% | 63.04\% |
| Net Loans to total asset | Net Loans/Total Asset | 31.85\% | 33.35\% | 29.81\% | 28.25\% | 56.59\% | 75.73\% | 69.53\% | 66.93\% | 57.85\% | 49.95\% | 48.23\% |
|  |  |  |  |  | 2 |  |  |  |  |  |  |  |
|  | $\checkmark$ |  |  |  |  |  |  |  |  |  |  |  |
| Capital Structure \& Financial Ratios | Capital Structure | 2014 | 2013 | 2012 | 2011 | 2010 | 2009 | 2008 | 2007 | 2006 | 2005 | 2004 |
| Capital adequacy ratio | (Tier 1 Capital + Tier 2 Capital)/Risk Weighted Assets | $32.56$ | 18.17 | 14.90 | 11.00 | 10.00 | 12.86 | 15.85 | 16.00 | 14.90 | 11.00 | 10.00 |

## APPENDIX C




| NATIONAL INVESTMENT BANK LIMITED |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\cdots$ | $\square$ |  | $\pm$ |  |  |  |  |  |
| STATEMENT OF FINANCIAL POSITION |  | 10 | - |  |  | $\checkmark$ |  |  |  |  |  |
|  |  | $\square$ | - |  | $\square$ |  |  |  |  |  |  |
| Assets | 2014 | 2013 | 2012 | 2011 | 2010 | 2009 | 2008 | 2007 | 2006 | 2005 | 2004 |
|  |  |  | $\cdots-58$ | NIE P | $\square$ |  |  |  |  |  |  |
| Cash and Balances with Bank of Ghana | 113,701.00 | 165,841.00 | 111,643.00 | 41,435.00 | 52,792.00 | 51,233.00 | 11,655.00 | 31,260.00 | 29,803.10 | 12,059.20 | 2,514.10 |
| Government Securities |  |  | 123,078.00 | 123,315.00 | 90,169.00 | 39,106.00 | 21,032.00 | 27,109.00 | 17,802.50 | 29,413.00 | 22,245.30 |
| Due from other Banks \& Financial Institutions | 676,404.00 | 86,012.00 | 99,002.00 | 154,597.00 | 112,115.00 | 56,231.00 | 37,760.00 | 36,874.00 | 34,391.70 | 24,693.60 | 27,665.90 |


| Financial Investment | 147,027.00 | 187,688.00 | 31,597.00 | 47,409.00 | 34,764.00 | 24,273.00 | 24,553.00 | 21,897.00 | 721.40 | 816.40 | 816.40 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Investment in associates | 190,485.00 | 189,878.00 | 18,667.00 | - | - | - |  |  |  |  |  |
| Investment in subsidiaries | 18,154.00 | 3,154.00 | 3,154.00 | 1,500.00 | 1,500.00 | - |  |  |  |  |  |
| Loans and Advances to customers | 769,594.00 | 515,624.00 | 449,657.00 | 399,258.00 | 326,977.00 | 284,488.00 | 240,232.00 | 193,871.00 | 137,736.60 | 90,163.30 | 77,929.70 |
| Other Asset | 218,232.00 | 13,020.00 | 10,959.00 | 82,650.00 | 70,394.00 | 54,634.00 | 49,031.00 | 27,487.00 | 35,276.70 | 24,688.00 | 9,535.90 |
| Property, Plant and Equipment | 185,976.00 | 28,734.00 | 27,006.00 | $28,035.00$ | 30,308.00 | 31,569.00 | 26,495.00 | 25,358.00 | 24,066.00 | 8,266.90 | 6,599.70 |
| Goodwill | - | - |  |  | - |  |  |  |  |  |  |
| Current Tax Asset | - | - | 2,176.00 | 674.00 | 2,118.00 | 2,118.00 |  |  |  |  |  |
| Total Assets | 2,319,573.00 | 1,189,951.00 | 876,939.00 | 878,873.00 | 721,137.00 | 543,652.00 | 410,758.00 | 363,856.00 | 279,798.00 | 190,100.40 | 147,307.00 |
| Liabilities |  |  |  |  |  |  |  |  |  |  |  |
|  |  | $\underline{0}$ |  |  |  |  |  |  |  |  |  |
| Customer Deposits | 1,343,814.00 | 759,234.00 | 700,529.00 | 722,890.00 | 498,803.00 | 336,718.00 | 254,283.00 | 244,583.00 | 169,753.90 | 125,452.70 | 44,670.30 |
| Borrowings | 136,978.00 | $59,231.00$ | $51,190.00$ | 11,842.00 | $77,074.00$ | $74,721.00$ | 52,589.00 | 11,516.00 | 64,243.40 | 22,306.50 | 16,448.90 |
| Liability in Managed Funds | 2,250.00 | 1,002.00 | $538.00$ | $1,192.00$ | $937.00$ | $742.00$ | 1,439.00 | 2,226.00 | 1,742.20 | 920.40 | 656.30 |
| Interest payable \& other Liabilities | 266,285.00 | 27,461.00 | 20,246.00 | 22,007.00 | 29,607.00 | 21,499.00 | 19,221.00 | 12,467.00 | 6,763.40 | 17,167.50 | 67,640.90 |
| Due to other Banks \& Finanacial Institutions | - | 23,572.00 | - | 34,239.00 | 46,649.00 | 45,882.00 | 50,920.00 | 33,112.00 |  |  |  |
| Capital Gain Tax | - |  | 384.00 |  |  |  |  |  |  |  |  |
| Deferred Tax Liabilities |  |  |  |  |  |  |  |  |  |  |  |
|  | 59,976.00 | 32,340.00 | 2,783.00 | 2,638.00 | 1,974.00 | 3,535.00 | 873.00 | 457.00 |  |  |  |
| National Fiscal Stabilization Levy | 6,595.00 | $1,125.00$ | $474.00$ | - |  |  |  | 881.00 | 880.60 | 856.00 | 318.50 |
| Dividend Tax | 1,315.00 | - | $586.00$ | $1$ |  | - |  |  |  |  |  |
| Taxation | 15,537.00 | 589.00 |  |  | - | - | 2,118.00 | 2,975.00 | 2,825.50 | 496.60 | 586.30 |
| Total Liabilities | 1,832,750.00 | 904,554.00 | 776,730.00 | 794,808.00 | 655,044.00 | 483,097.00 | 377,207.00 | 302,267.00 | 240,558.00 | 167,199.70 | 130,321.20 |
| Equity |  |  |  |  |  |  |  |  |  |  |  |


|  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Stated Capital | 70,000.00 | 70,000.00 | 70,000.00 | 70,000.00 | 70,000.00 | 70,000.00 | 20,000.00 | 7,000.00 | 7,000.00 | 7,000.00 | 326.00 |
| Sttatutory reserve funds | 56,292.00 | 36,443.00 | 17,179.00 | 11,361.00 | 7,568.00 | 6,356.00 | 6,356.00 | 6,356.00 | 4,884.60 | 3,777.80 | 3,038.50 |
| Regulatory Credit Risk Reserve | 13,368.00 | 4,241.00 | 3,442.00 | 2,764.00 | 490.00 | 249.00 | - |  |  |  |  |
| Other Reserves | 322,362.00 | 200,330.00 | 53,670.00 |  |  | - | 35,998.00 | 33,471.00 |  |  |  |
| Income Surplus | 24,803.00 | 25,617.00 | 44,082.00 | 49,222.00 | $50,158.00$ | 51,129.00 | 28,803.00 | 14,762.00 | 13,540.00 | 11,950.10 | 13,448.50 |
| Non-controlling interest | - | - |  |  |  |  |  | - |  |  |  |
| Capital Surplus |  |  |  | 49,162.00 | 38,193.00 | 35,079.00 | - | - | 13,815.40 | 172.80 | 172.80 |
|  |  |  |  |  |  |  |  |  |  |  |  |
| Total Equity | 486,825.00 | 285,397.00 | 100,209.00 | 84,065.00 | 66,093.00 | 60,555.00 | 33,551.00 | 61,589.00 | 39,240.00 | 22,900.70 | 16,985.80 |
|  |  |  | - | - |  |  |  |  |  |  |  |
| Total Liabilities and Equity | 2,319,575.00 | 1,189,951.00 | 876,939.00 | 878,873.00 | 721,137.00 | 543,652.00 | 410,758.00 | 363,856.00 | 279,798.00 | 190,100.40 | 147,307.00 |
|  |  | $\square$ |  |  |  |  | - |  |  |  |  |
|  | C | - |  |  | - |  |  |  |  |  |  |
|  | 2014 | 2013 | 2012 | 2011 | 2010 | 2009 | 2008 | 2007 | 2006 | 2005 | 2004 |
| Gross Loans | 859,839.00 | $602,753.00$ | $513,526.00$ | 608,788.00 | 447,593.00 | $404,741.00$ | 316,233.00 | 223,127.00 | 162,777.00 | 119,529.00 | 97,983.00 |
| Provisions for Impairment and Allowance | 90,245.00 | 87,129.00 | 63,869.00 | 209,530.00 | $120,616.00$ | 120,253.00 | 76,001.00 | 29,256.00 | 25,041.00 | 29,366.00 | 20,053.00 |
| Non Performing Loans |  |  |  |  |  |  |  |  |  |  |  |
| NPA | 27.50 | 24.00 | 14 | 34.00 | 38.82 | 47 | 45 | 23 | 28 | 29 | 18 |
|  |  |  |  |  |  |  |  |  |  |  |  |


|  |  | 52014 | $2013$ | 2012 | 2011 | 2010 | 2009 | 2008 | 2007 | 2006 | 2005 | 2004 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Profitability \& Efficiency Ratios |  |  |  |  |  |  |  |  |  |  |  |  |
| Return on equity(ROE) | Profit After Tax/Equity | 16.31\% | 13.50\% | 11.61\% | 9.03\% | -0.83\% | 31.39\% | 83.32\% | 12.59\% | 5.08\% | -1.83\% | 30.30\% |
| Profit after tax margin | Profit After Tax/Total Income | 25.23\% | 21.42\% | 8.25\% | 6.36\% | -0.52\% | 20.40\% | 38.56\% | 13.52\% | 5.39\% | -1.40\% | 18.92\% |
| Return on assets(ROA) | Profit After Tax/Total Asset | 3.42\% | 3.24\% | 1.33\% | 0.86\% | -0.08\% | 3.50\% | 6.81\% | 2.13\% | 0.71\% | -0.22\% | 3.49\% |
| Total operating income/total assets | Total Operating Income/Total Asset | 10.07\% | 11.26\% | 10.92\% | 8.52\% | 8.39\% | 8.67\% | 11.90\% | 11.69\% | 9.25\% | 11.72\% | 14.53\% |



APPENDIX E

| AGRICULTURAL DEVELOPMENT BANK |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| STATEMENT OF COMREHENSIVE INCOME |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Profit and Loss Account |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| For the year ended 31 December |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 2014 | 2013 | 2012 | 2011 | 2010 | 2009 | 2008 | 2007 | 2006 | 2005 | 2004 |  |  | 75,432,316.00 |
|  | Note |  |  |  |  |  |  |  |  | $\ell^{\prime} \mathrm{m}$ | $\ell^{\prime \prime} \mathrm{m}$ | $\phi^{\prime} \mathrm{m}$ |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Interest income | 2 | 308,137,000.00 | 230,648,000.00 | 199,456,000.00 | 119,189,000.00 | 126,915,000.00 | 81,415,938.00 | 59,688,900.00 | 42,327,367.00 | 42,055.00 | 33,056.00 | 30,987.00 |  |  |  |
| Interest expense | 3 | 100,405,000.00 | 55,687,000.00 | 41,166,000.00 | 38,891,000.00 | 37,411,000.00 | 39,603,155.00 | 20,474,861.00 | 11,298,781.00 | 11,066.60 | 10,550.00 | 10,290.40 |  |  |  |
|  |  |  |  |  |  | $\square$ | -603, |  |  |  | - | - |  |  |  |
| Net interest income |  | 207,732,000.00 | 174,961,000.00 | 158,290,000.00 | 80,298,000.00 | 89,504,000.00 | 41,812,783.00 | 39,214,039.00 | 31,028,586.00 | 30,988.40 | 22,506.00 | 20,696.60 |  |  |  |
|  |  |  |  | - |  |  | - |  |  |  |  |  |  |  |  |
| Fee and commission expense |  | 5,118,000.00 | 3,320,000.00 | 2,373,000.00 | $2,211,000.00$ | 1,095,000.00 |  |  |  |  |  |  |  |  |  |
| Fee and commission income |  | 43,323,000.00 | 47,240,000.00 | $43,958,000.00$ | 39,665,000.00 | 22,130,000.00 | 28,627,193.00 | $26,065,292.00$ | $17,420,758.00$ | 14,264.90 | 14,439.50 | 12,801.90 |  |  |  |
| Other operating income | 4 | 14,689,000.00 | 36,618,000.00 | 9,179,000.00 | 17,854,000.00 | 14,493,000.00 | $6,548,424.00$ | $10,152,985.00$ | 6,395,295.00 | 6,405.00 | 2,656.50 | 9,753.90 |  | 55,308,000 |  |
| Net Trading Income |  | 67,221,000.00 | 24,534,000.00 | 32,511,000.00 | 27,995,000.00 | 12,544,000.00 | - |  |  |  |  |  |  |  |  |
| Net Non-Interest Revenue |  | 120,115,000.00 | 105,072,000.00 | 83,275,000.00 | 83,303,000.00 | 48,072,000.00 | 35,175,617.00 | 36,218,277.00 | 23,816,053.00 | 20,669.90 | 17,096.00 | 22,555.80 |  |  | 76,988,400 |
| Operating income |  | 327,847,000.00 | 280,033,000.00 | 241,565,000.00 | 163,601,000.00 | 137,576,000.00 | 76,988,400.00 | 75,432,316.00 | 54,844,639.00 | 51,658.30 | 39,602.00 | 43,252.40 |  |  |  |
|  |  |  |  | 7 |  | $\square$ | $\cdots$ |  | , |  |  |  |  | 48,072,000 |  |
| Operating expenses Charge for bad and doubtful debts | 5 | 94,006,000.00 | 39,476,000.00 | $71,806,000.00$ | 135,508,000.00 | 120,201,000.00 | 61,947,745.00 | 57,292,114.00 | 42,889,565.00 | 31,129.20 | 25,194.60 | 20,683.80 |  |  |  |
|  | 14 | 59,080,000.00 | 34,353,000.00 | 26,087,000.00 | 7,610,000.00 | 6,686,000.00 | 15,896,510.00 | $6,923,146.00$ | 3,831,236.00 | 7,965.60 | 6,272.80 | 10,314.50 |  |  |  |
|  |  |  |  |  | - | 2 Ca | $\cdots \mathrm{N}$ | 3 |  |  | - | - | 605.4 | 137,576,000 |  |
| Operating profit |  | 174,761,000.00 | 206,204,000.00 | 143,672,000.00 | 35,703,000.00 | 10,689,000.00 | (855,855.00) | 11,217,056.00 | 8,123,838.00 | 12,563.50 | 8,134.60 | 12,254.10 | 1228.6 |  |  |
| Other income | 7 | 14,929,000.00 | 2,926,000.00 | 79,000.00 | 10,611,000.00 | 1,576,000.00 | 15,852,975.00 | 6,137,686.00 | 5,280,368.00 | 1,639.30 | 702.60 | 2,043.90 |  | 83,303,000 |  |
| Other expenses |  | 139,990,000.00 | 125,202,000.00 | 117,055,000.00 | 411,000.00 |  | 1,663,051.00 | 2,419,852.00 | 1,806,307.00 | 2,565.00 | (764.80) | $(2,012.70)$ |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  | - | - |  | 163,601,000 |  |
| Profit before Reconstruction |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |




## APPENDIX F

|  |  | 2014 | 2013 | 2012 | 2011 | 2010 | 2009 | 2008 | 2007 | 2006 | 2005 | 2004 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Profitability \& Efficiency Ratios | Profitability \& Efficiency Ratios |  |  |  |  |  |  |  |  |  |  |  |  |


| Return on equity(ROE) | Profit After Tax/Equity | 13.92 $\%$ | 28.69 $\%$ | $\begin{array}{r} 13.54 \\ \% \end{array}$ | $\begin{array}{r} 24.75 \\ \% \end{array}$ | 10.96\% | $\begin{array}{r} 10.42 \\ \% \\ \hline \end{array}$ | 13.74\% | $\begin{array}{r} 12.25 \\ \% \\ \hline \end{array}$ | 0.42\% | 12.05\% | 19.75\% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Profit after tax margin | Profit After Tax/Total Income | $\begin{array}{r} 10.56 \\ \% \\ \hline \end{array}$ | $\begin{array}{r} 23.35 \\ \% \\ \hline \end{array}$ | 9.28\% | $\begin{array}{r} 20.05 \\ \% \\ \hline \end{array}$ | 6.52\% | 9.56\% | 14.64\% | $\begin{array}{r} 16.24 \\ \% \\ \hline \end{array}$ | 4.52\% | 14.68\% | 19.89\% |  |
| Return on assets(ROA) | Profit After Tax/Total Asset | 2.22\% | 4.97\% | 1.85\% | 3.62\% | 1.21\% | 1.72\% | 2.39\% | 2.46\% | 0.71\% | 2.18\% | 3.57\% |  |
| Total operating income/total assets | Total Operating Income/Total Asset | $\begin{array}{r} 15.89 \\ \% \\ \hline \end{array}$ | $\begin{array}{r} 17.45 \\ \% \end{array}$ | $\begin{array}{r} 16.73 \\ \% \end{array}$ | $\begin{array}{r} 14.45 \\ \% \end{array}$ | 14.43\% | $\begin{array}{r} 12.64 \\ \% \\ \hline \end{array}$ | 13.07\% | $\begin{array}{r} 12.76 \\ \% \end{array}$ | 12.99\% | 11.74\% | 14.64\% |  |
| Cost Income Ratio | Non Interest Expenses/Operating Income | $\begin{array}{r} 27.42 \\ \% \end{array}$ | $\begin{array}{r} 13.95 \\ \% \\ \hline \end{array}$ | $\begin{array}{r} 29.72 \\ \% \\ \hline \end{array}$ | $\begin{array}{r} 77.78 \\ \% \\ \hline \end{array}$ | 86.38\% | $\begin{array}{r} 66.72 \\ \% \\ \hline \end{array}$ | 70.24\% | $\begin{array}{r} 71.33 \\ \% \\ \hline \end{array}$ | 58.41\% | $62.51 \%$ | 45.66\% |  |
| Non-interest income to operating income | Non-Interest Income/Operating Income | $\begin{array}{r} 39.40 \\ \% \end{array}$ | $\begin{array}{r} 38.17 \\ \% \\ \hline \end{array}$ | $\begin{array}{r} 34.49 \\ \% \end{array}$ | $\begin{array}{r} 53.91 \\ \% \\ \hline \end{array}$ | 35.68\% | $\begin{array}{r} 54.96 \\ \% \\ \hline \end{array}$ | 51.93\% | $\begin{array}{r} 48.39 \\ \% \\ \hline \end{array}$ | 41.86\% | 44.16\% | 54.31\% |  |
| Non-interest income to earning asset | Non-Interest Income/Earning Asset | 8.55\% | 8.71\% | 7.08\% | $\begin{array}{r} 10.00 \\ \% \\ \hline \end{array}$ | 6.40\% | 9.99\% | 9.10\% | 9.14\% | 8.53\% | 8.16\% | 13.12\% |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Portfolio Quality Ratios | Portfolio Quality Ratios |  |  |  |  |  |  |  |  |  |  |  |  |
| Non performing loans to total loans | Non Performing Loans/Gross Loans | 23.29 | 12.42 | 10.53 | 6.68 | 11.82 | 47.95 | 88.93 | 0.00 | 23.63 | 22.96 | 30.99 |  |
| Imparirment charges to gross loans | Impairment Charge/Gross Loans | 0.05 | 0.04 | 0.03 | 0.01 | 0.01 | 0.04 | 0.02 | 0.01 | 0.04 | 0.23 | 0.44 |  |
| Loan portfolio profitability | Int.Inc (Loans \& Adv) - Prov. Bad\&Doubtful/Net Loans | 9.93\% | $\begin{array}{r} 11.80 \\ \% \end{array}$ | $\begin{array}{r} 14.41 \\ \% \end{array}$ | $\begin{array}{r} 11.45 \\ \% \\ \hline \end{array}$ | 12.60\% | -0.19\% | 0.79\% | -3.54\% | $\begin{array}{r} 132.22 \\ \% \end{array}$ | $\begin{array}{r} 131.88 \\ \% \end{array}$ | $\begin{array}{r} 168.47 \\ \% \end{array}$ |  |
|  | $\square$ | $\square$ |  |  | 4 |  | , |  |  |  |  |  |  |
|  |  |  | r |  |  |  | \% |  |  |  |  |  |  |
|  |  |  |  |  |  | $\square$ |  |  |  |  |  |  |  |
| Liquidity Ratios | Liquidity Ratios |  |  |  |  | $\square$ |  |  |  |  |  |  |  |
| Liquid asset to total deposits | Liquid Asset /Total Deposits | $\begin{array}{r} 57.98 \\ \% \\ \hline \end{array}$ | $\begin{array}{r} 51.57 \\ \% \\ \hline \end{array}$ | $\begin{array}{r} 53.71 \\ \% \\ \hline \end{array}$ | $\begin{array}{r} 46.08 \\ \% \end{array}$ | 54.06\% | $\begin{array}{r} 58.91 \\ \% \end{array}$ | 47.35\% | $\begin{array}{r} 58.22 \\ \% \end{array}$ | 8.38\% | 73.33\% | 95.78\% |  |
| Liquid asset to total asset | Liquid Asset /Total Asset | $\begin{array}{r} 39.31 \\ \% \\ \hline \end{array}$ | $\begin{array}{r} 33.74 \\ \% \end{array}$ | $\begin{array}{r} 35.89 \\ \% \end{array}$ | $\begin{array}{r} \hline 31.64 \\ \% \end{array}$ | 30.04\% | $\begin{array}{r} 34.09 \\ \% \end{array}$ | 24.23\% | $\begin{array}{r} 33.48 \\ \% \\ \hline \end{array}$ | 47.88\% | 38.77\% | 49.64\% |  |
| Liquid assets to earning asset | Liquid Asset/Earning Asset | $\begin{array}{r} 53.67 \\ \% \\ \hline \end{array}$ | $\begin{array}{r} 44.12 \\ \% \\ \hline \end{array}$ | $\begin{array}{r} 44.05 \\ \% \end{array}$ | $\begin{array}{r} 40.61 \\ \% \\ \hline \end{array}$ | 37.37\% | $\begin{array}{r} 49.02 \\ \% \end{array}$ | 32.51\% | $\begin{array}{r} 49.55 \\ \% \\ \hline \end{array}$ | 75.15\% | 61.02\% | 81.93\% |  |
| Net Loans to total deposit | Net Loans/Total Deposit | $\begin{array}{r} 76.88 \\ \% \end{array}$ | $\begin{array}{r} 86.17 \\ \% \\ \hline \end{array}$ | $\begin{array}{r} 80.17 \\ \% \end{array}$ | $\begin{array}{r} 82.00 \\ \% \\ \hline \end{array}$ | $\begin{array}{r} 107.63 \\ -\% \end{array}$ | $\begin{array}{r} 87.70 \\ \% \\ \hline \end{array}$ | $\begin{array}{r} 116.00 \\ \% \\ \hline \end{array}$ | $\begin{array}{r} 84.49 \\ \% \end{array}$ | 6.44\% | 69.58\% | 52.71\% |  |
| Net Loans to total asset | Net Loans/Total Asset | $\begin{array}{r} 52.12 \\ \hline \% \\ \hline \end{array}$ | $\begin{array}{r} 56.38 \\ \% \\ \hline \end{array}$ | $\begin{array}{r} 53.57 \\ \% \end{array}$ | $\begin{array}{r} 56.29 \\ \% \\ \hline \end{array}$ | $59.82 \%$ | $\begin{array}{r} 50.76 \\ \% \end{array}$ | 59.37\% | $\begin{array}{r} 48.59 \\ \% \\ \hline \end{array}$ | 36.78\% | 36.79\% | 27.32\% |  |
|  |  |  |  |  | - |  |  |  |  |  |  |  |  |
|  |  | $\bigcirc$ | ANE | - |  |  |  |  |  |  |  |  |  |
| Capital Structure \& Financial Ratios | Capital Structure | 2014 | 2013 | 2012 | 2011 | 2010 | 2009 | 2008 | 2007 | 2006 | 2005 | 2004 |  |
| Capital adequacy ratio | (Tier 1 Capital + Tier 2 Capital)/Risk Weighted Assets | 10.48 | 13.02 | 10.15 | 10.76 | 12.86 | 15.85 | 16.00 | 14.82 | 13.20 | 11.58 | 10.08 |  |


[^0]:    Source: Computed from data presented in Annual Reports

