# EFFECT OF INTERNAL CREDIT RATING ON FINANCIAL PERFORMANCE OF COMMERCIAL BANKS IN KENYA

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## DECLARATION AND APPROVAL

This research project is my original work and has not been presented for a degree or diploma in this or any other university.

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## DEDICATION

This work is dedicated to my family and friends for their prayers and support.

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## ABSTRACT

Internal credit rating (ICR) was used in evaluating the level of risk associated with a loan applicant and assign probabilities that an applicant with a given credit score would be good or bad. It could also be used as abasis for loan approval, pricing, monitoring and capital allocation. Lending difficulties may arise due to Internal Credit Rating (ICR) systems failure to consider and analyze potential borrower's information before loans are approved and released to them, making loan monitoring and capital allocation based on the associated risk profile difficult. In recent years spanning 2011 to 2014, there have been growing trend of bad loans, this study aimed at investigating the effects of ICR on the financial performance of commercial banks operating in Kenya for 10 year duration from 2006 to 2015. The specific objectives of the study were to: Establish the effects of ICR-based loan origination process on the financial performance of commercial banks in Kenya; examine the effects of ICR-based setting of credit terms and conditions on the financial performance of commercial banks in Kenya; assess the effects of ICR-based credit monitoring on the financial performance of commercial banks in Kenya; and analyze the effects of ICR-based capital allocation on the financial performance of commercial banks in Kenya. The study was intended to be useful to bankers, bank supervisors, and other stakeholders including scholars and the general public. The study used the longitudinal research design to describe and provide a profile of the relationship between the bank ICR systems and risk adjusted financial performance of the various commercial banks. The population of the study consisted of 20 commercial banks registered, licensed and operating in Kenya as at the period of the study. The20 banks was purposively analysed after a preliminary survey carried out to establish the availability of data for all Commercial banks. Therefore, the study population comprised the 20 commercial banks in Kenya, arrived at using the purposive selection criterion. The main data collection instrument was the secondary data collection schedule with data being collected from the yearly bank reports, Central Bank of Kenya annual reports and Kenya Bankers Association. Data analysis was conducted with the help of STATA computer program, providing descriptive and inferential statistics. The descriptive statistics comprised the mean, median, standard deviations, minimum and maximum. The inferential statistics on the other hand consisted of; correlation analysis and panel data regression analyses. The study findings indicated that ICR-based setting of credit termsand conditions($r = 0.2697^{***}$; $p = -0.0016$); ($\beta = 0.177^{**}$; SE = 0.0849)as well as ICR-based capital allocation ($r = -0.061$; $p = 0.4679$); ($\beta = -0.0720$; SE = 0.0500)related positively with financial performance of banks, Additionally, the results in respect to the effects of ICR-based loan origination ($r= 0.1828^{**}$; $p = 0.0345$); ($\beta = -0.0217$; SE = 0.0619) and ICR-based credit monitoring($r = -0.1765^{**}$; $p = 0.0445$); ($\beta = 0.0818$; SE = 0.121)showed that it did not have any effect on the financial performance of the commercial banks in Kenya.The study therefore concluded that the effects of ICR and firm performance is multidimensional and is influenced by firm specific as well as contextual factors. Hence the study recommended continual ICR updating, intense use of loan covenants and collateral, and improving information sharing capabilities. As an area for further research, the study recommended the same research factoring in all the banks and automated credit risk analysis for remote lending transactions.



**Key words:***Internal credit rating (ICR), ICR-based loan origination, ICR-based Setting of credit terms and conditions, ICR-based credit monitoring, ICR-based capital allocation and Bank financial Performance.*

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ANOVA- Analysis of Variance

C&I - Commercial and Industrial

CBK - Central Bank of Kenya

CL - Consumer Loans

CLTV - Combined Loan-to-Value ratio

CRE - Commercial Real Estate

CRM - Credit Risk Mitigation

CWO - Write Offs

EL - Expected Loss

ELR - Expected Loss Rate

FDIC - Federal Deposit Insurance Corporation

FE - Fixed Effects

GDP - Gross Domestic Product

ICR - Internal Credit Rating

IRB - Internal Ratings-Based

KBA - Kenya Bankers Association

LIED - Loss in Event of Default

LLP - Loan Loss Reserve

LTV - Loan-to-Value ratio

NPL - Non - Performing loans

OLS - Ordinary Least Squares

PD - Probability of Default

RE - Random Effects

RMs - Relationship Managers

ROA - Return on Assets

ROE - Return on Equity

RORAC- Return on Risk Adjusted Capital

RRE - Residential Real Estate

RWA - Risk Weighted Assets

SE - Standard Error

UL - Unexpected Loss

VaR - Value-at-Risk

WTO - World Trade Organization

# CHAPTER ONE
# INTRODUCTION

## 1.1 Introduction

Credit risk is the primary financial risk in the banking system and exists in virtually all income producing activities (Ahn & Choi, 2009). Internal Credit Rating (ICR) systems are, designed to differentiate the credit quality of borrowers, providing a summary statistic for that customer's probability of defaulting on credit obligations (Jones & Mingo, 1999).They can be used as the basis for loan approval, pricing, monitoring, and loan loss provisioning; among others (Grunert, Norden, & Weber, 2005). Managing credit risk is thus the ''bread and butter'' of most commercial banks (Heffernan, 2005). More importantly, credit risk management is likely to influence the functioning of the economy, predominantly because bank loans are still the prime source of business finance (Jacobson et al., 2006). As a result, a bank's ability to utilize effective internal credit rating system was likely have a significant effect on the economy since credit risk can raise the marginal cost of debt and equity, which in turn increases the cost of funds for the banks (Heffernan, 2005).

According to Fredriksson and Moro (2014) internal credit rating system is the key determinant of bank performance that is within the control of management. This is underscored by the argument of Nakamura and Roszbach's (2013), that the 2007-2009 financial crisis was an indicator that a large number of banks around the world were insufficiently attentive to risks within their portfolios. However, Barriga, Cancho and Louzad (2015) observes that internal credit ratings have been part of the major changes that have taken place in the world financial system section since 1930s, in addition to deregulation of the interest rates and exchange rates, leading to increased liquidity and lender competition. As a consequence, banks have been concerned that lending decisions have been increasingly becoming important to their profitability leading them to develop tools to supporting allocating resources without losing the agility and quality of credits.

Globally, recent events in the credit markets have indicated the importance of the credit risk as a determinant of performance of not only banking organizations but also of the wider economy.

Hence, Cole & White (2012) find that between 2008-2010 more than 300 commercial banks in the United States were closed at a cost of more than $80 billion by the Federal Deposit Insurance Corporation (FDIC) mainly due to lending risks. Among other economically advanced countries such as within the European Union, Puri, Rocholl and Steffen (2011) observed an extensive use of internal credit rating systems among banks,incorporate both hard and soft information in their lending decisions. The researchers found that loan making process is an entirely codified and follow pre-defined rules but also having the potential for discretion. As Chiaramonte, Croci and Poli (2015) observed, many of the sophisticated internal portfolio models that were built for use mainly in the United States market may need to be adapted for the European market since the two markets have different structural characteristics.

Consequently, the internal credit rating models in use in the emerging markets are more likely to face heightened degree of constrain due in large part to their distinct market structures (Demetriades & Fielding, 2012). Matthews (2010) found that the common characteristics of the Chinese banking sector consist of large number of non-performing loans, lending majorly focused on state-owned enterprises, and the influence of local government and Communist Party officials. Since its entrance into the World Trade Organization (WTO) in 2001, Qian, Strahan and Yang (2015) observe that China's lending decisions have implanted the internal credit rating and have witnessed improved lending decisions with internal credit rating strongly predicting loan interest rates and after hand information on loan performance. Similarly, Fisman, Paravisini and Vig (2012) showed that in India lending decisions are influenced by cultural proximity in terms of religion, ethnic background, and geographic area between lender and borrower are associated with improved repayment performance. They caution, however, that such lending practices may lead to discrimination or favoritism and result in the misallocation of resources. In Brazil, Montes and Peixoto (2014) found evidence that banks increase loans when the economy presents signs of warming, which reinforces the procyclical nature of banking institutions.

Further, Brook and Stein (2009) found that in most emerging markets, the credit markets are not well developed. Thus, banks needed to rely majorly on their own internal ratings since the private credit bureaus have a very small penetration into the market. For instance, the authors found that Philippines has just 5% of the population included in the private credit bureau, a

corresponding percentage for India and the Russian Federation are double that of the Philippines at 10% though still quite low whereas significantly higher in South Africa (65%), El Salvador (83%) and Argentina (100%) are relatively high. They noted that Argentina's full coverage of the population is unusual for developing countries, which however, is not unusual for developed countries.

In Africa, Andrianova, Baltagi, Demetriades and Fielding (2015) pointed out that savings mobilization does not appear to represent a binding constraint on banks' ability to lend in most African countries but that lending problems lie with the lack of credit worthy borrowers. However, there has been an increasing demand for credit among a growing number of households and firms in these countries. In West Africa, for example, Demetriades and Fielding (2012) conducted a study involving eight former French colonies comprising Benin, Burkina Faso, Cote d'Ivoire, Guinea-Bissau, Mali, Niger, Senegal and Togo and found that the countries have a uniform financial system with high loan default rates in the region and those variations in the delinquency rates impact on liquidity and asset growth. According to Odonkor, Osei, Abor, &Adjasi (2011), major Ghanaian banks engage aggressively in risky activities and thus outperform smaller banks suggesting that prudent banking regulation may help reduce fragility in the financial system.

According to Brook and Stein (2009), development of financial infrastructure such as internal credit rating in emerging markets can raise the ability of banks to check the potential borrower's past experiences and also evaluate the suitability of the security or collateral to be used for a loan. The internal credit rating can be used to evaluate the level of risk associated with a loan applicant and assign probabilities that an applicant with a given credit score was good or bad (Puri, Rocholl, & Steffen, 2011). These probabilities or odds can be computed from history of default frequencies of borrowers hence improving the bank's predictive power in separating good and bad customers. Like a public credit rating produced by agencies such as Moody's or Standard & Poor's, a bank's internal rating summarizes the risk of loss due to failure by a given borrower to pay as promised (Treacy & Carey, 2000). Bank internal credit risk evaluation systems go by a number of names, such as expert systems, credit scoring or credit risk rating (Lehmann, 2003). Accordingly, internal credit rating is important throughout the entire loan path,

that is, the sequence of events beginning with an origination and ending with a terminal event, such as maturity or early termination (Roberts, 2015).

### 1.1.2 The Concept of Internal Credit Rating (ICR)

In June 2004, the Basel Committee on Banking Supervision issued a revised framework on International Convergence of Capital Measurement and Capital Standards, often referred to as Basel II (Dohnal, 2008). As a result of the pronouncement, Internal Ratings-Based (IRB) approach of Basel II encouraged banking institutions to use their own internal measures for key drivers of credit risk as primary inputs to their minimum regulatory capital calculation subject to meeting certain conditions and to explicit supervisory approval. However, the origins of use of quantitative credit risk modeling at the portfolio level can be traced back to the 1990s, when JP Morgan in conjunction with several co-sponsors launched CreditMetrics and Credit Suisse First Boston released its CreditRisk (Hahnenstein, 2004). Internal credit ratings can be considered to contain evidence of the private information that banks possess, and can be distinguished from credit bureaus' ratings in that credit bureaus base their ratings on public information which also form an input in banks' internal ratings (Jacobson *et al.,* 2006). Internal credit ratings for borrowers are thus an aggregated valuation procedure of various financial and non-financial factors (Grunert*et al.,* 2005).According to Treacy and Carey (2000), at banks, ratings are kept private and the costs and benefits of rating systems are internal; hence, pressures for accuracy, consistency, and fine distinctions of risk are mainly a function of the ways in which ratings are used in managing the portfolio. Moreover, the researchers add, the rating system can be tailored to fit the requirements of the bank's primary lines of business and can be restructured whenever the internal benefits of doing so exceed the costs.

### 1.1.3Commercial Banks in Kenya

The banking system in Kenya consists of 43 banks, with 1,313 branches and 34,064 employees; 26 local privately owned banks; 14 foreign banks that bring into the Kenyan banking system valuable skills, technology and capital, they can also bring risks; and 3 state owned banks (Mwega, 2014). The system had its foundation when British commercial banks started operations in Kenya during the 1890s (Gitonga, 2014). Up until independence, most of the banks operating in Kenya were foreign owned and had less interest in the African population as they catered

mainly for the immigrant Asian and European settler communities. After independence, there was increased participation of Kenyan banks targeting African population, mostly dominated by state owned banks.

From 1980s, however, the Kenyan the financial sector underwent reforms aimed at achieving efficiency in the delivery of credit and other financial services to ensure that the costs of services became increasingly affordable and the range and quality of services better, catering to the needs of both savers and investing businesses (Mwega, 2014). This saw the emergence of numerous locally owned privately held banking corporations in Kenya to compete side by side with the international banks that had developed networks across the country. According to Waweru and Kalani (2009), the same period also coincided with a number of banking problems culminating in major bank failures of 37 banks between 1886 and 1998 mostly due to non-performing loans.

From 2004, following Basel II recommendations, the banking sector in Kenya have attempted to improve their internal credit rating in line with those recommendations. Most of the local affiliates of international banks (72%) were ready to implement Basel II in 2008 while a majority of the local institutions (76%) indicated deferred full implementation to 2010 (Central Bank of Kenya, 2011). Despite increased efforts at using the internal credit rating for lending decisions and for loan portfolio management, the ratio of non-performing loans as compared to total gross loan amounts has showed an upward trendsince 2011 as evidenced in Figure 1.1 (Central Bank of Kenya, 2015). This has raised the question whether ICR affect key bank financial performance metrics given that Basel II which ushered in the ICR regime was being fully operational from 2010.

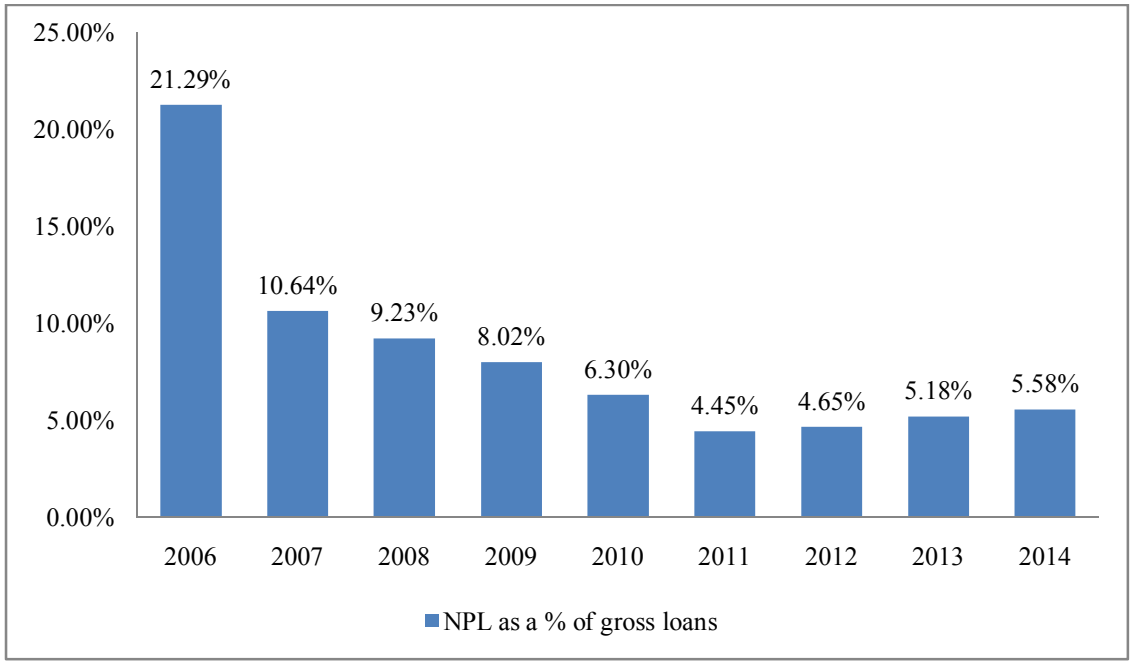


*Figure 1.1*: Non-Performing Loansfrom 2006 to 2014

Source: CBK

Given the background of limited lending by major banks mainly driven by poor credit worthiness, there has been increasing motivation for financial inclusion (Central Bank of Kenya, 2015). Hence, banks have attempted to reduce the prohibitive costs of borrowing by overcoming private information asymmetry via rich arrays of screening contracts (Athreya, Tam, & Young, 2011). Increasingly internal credit rating has become one route of borrower signaling that is used by banks to separate borrowers according to their risk characteristics. Consequently, the ICR has been one of the tools used in decision making on whether or not to grant credit at the beginning of a credit relationship, the determination of terms and conditions under which credit was granted, the monitoring of the credit during its life-time and the management of a bank's credit portfolio risk, and allocation of economic capital (Lehmann, 2003).

## 1.2 Statement of the Problem

The role of commercial banks in Kenya is key, lending being their core business activity, theycreateaccess of credit facilities to borrowers and investors whoborrow and in turn invest to promote development of various sectors of the economy (Mwega, 2014). Lending is associated with high risk through default (Matthews, 2010)According to Andrianova, Baltagi, Demetriades and Fielding(2015), most banks face lending difficulties which originate from credit evaluation. This is where the internal credit rating (ICR) systemsfails to take note and analyze their customers/borrowers information before loans are approve and release to them and also fail to monitor the repayments by the borrowers (Curcio & Gianfrancesco, 2009). As a result, the banks are forced to lend at a level below their capacity implying that they have to spread their costs among a few borrowers leading to high interest rates as well as high default rates (Curcio & Gianfrancesco, 2009).

Commercial Banks generate huge income from their lending activities, but some proportion of their loaned amounts regularly become bad loans and therefore affect the financial performance of these institutions, this is also seen in the Commercial banks annual reports for the year ended December 2014, where bad loans stood at kshs. 108.3 billion (Central Bank of Kenya, 2015). According to the Central Bank of Kenya (2011) internal credit rating can help banks reduce inefficiencies in lending operations since customers whose credit standing indicate having problems with creditworthiness was subjected to stringent terms and conditions in order to accurately predict borrowers' chances of default, determine loan contract terms, monitor loans and capital allocations decisions that are more profitable. Kenyan banks have attempted to implement Basel II recommendations to a varying degree of success (Dohnal, 2008). Despite all these expectations and implementations, banking system in Kenya has showed increasing trend of bad loans in relation to total loans in the recent years as follows, 2011 (4.4%), 2012 (4.7%), 2013 (5.2%) and 2014 (5.6%) as shown in figure 1.1.Bad loans can fuel banking crisis and result in the collapse of some of these institutions. (Central Bank of Kenya, 2015). Therefore this study was intended to investigate the value of ICR in relation to banks financial performance in Kenya.

### 1.3 General objective of the Study

The all-purposeobjective of the study wasto investigateeffects of internal credit rating on the financial performance among the commercial banks in Kenya.

#### 1.3.1 Specific Objectives of the Study

i. To establish the effects of ICR-based loan origination process on the financial performance of commercial banks in Kenya.
ii. To examinethe effects ofICR-based setting of credit terms and conditions on thefinancial performance of commercial banks in Kenya.
iii. To assess the effects ofICR-based credit monitoring on thefinancial performance of commercial banks in Kenya.
iv. To analyze the effects ofICR-based capital allocation on thefinancial performance of commercial banks in Kenya.

### 1.4 Research Hypotheses

The researcher used hypotheses since it allowed determination of focus and direction; clarifies the state of purpose; state the variables to be included and these to be excluded in the research and gave operational definition of variables of interest (Anderson, Dennis, & Williams, 2004).

The hypotheses below was tested at significance level $\alpha = 0.05$

**$H_{01}$**: There is no significant effect between ICR-based loan origination process and the financial performance of commercial banks in Kenya.

**$H_{02}$**: There is no significant effect between ICR-based setting of credit terms and conditions and the financial performance of commercial banks in Kenya.

**$H_{03}$**: There is no significant effect between ICR-based credit monitoring and the performance of commercial banks in Kenya.

**$H_{04}$**: There is no significant effect between ICR-based capital allocation and the financial performance of commercial banks in Kenya.

## 1.5 Significance of the Study

The findings from this studywill contribute to the better understanding of bank credit risk measurement and management as well as use of internal credit rating model for various purposes in the bank loan cycle. Thus the study will be useful to bankers as itwill highlight key principles for setting up an internal risk rating system as well as evaluating the effectiveness of suchsystem. The study will alsobe useful to bank supervisors, mostly drawn from the Central Bank of Kenya. Thiswill be achieved by noting the bank specific differences in key indicators of bank performance affected by the ICR hence allowing CBK supervisors to target their operations to areas where inadequacies are likely to be found and therefore recommending adjustments where necessary to improve such weaknesses. The study will alsobe useful to scholars as it will highlight an avenue for conceptualizing ICR, hence facilitating future theoretical and empirical studies in the area. Finally, the study willbenefit other stakeholder such as policymakers charged with making legislation relating to credit, credit risk management, credit rating and reporting and banking in general as well as the general public who benefit from appropriate lending contracts such as borrowers.

## 1.6 Scope of the Study

This study involved the study of effects of ICR on financial performance of commercial banks in Kenya. By concentrating on the banking sector, the study attempted to uncover various ways developed in the ICR administration by the varied participants yielded increased loan performance, hence, higher bank financial performance over time. Thus the study covered a 10 year period from 2006 to 2015.

## 1.7 Limitations and Delimitations of the Study

The researcher faced a number of challenges in carrying out thisstudy; among them was the process of acquiring data from all the 20 commercial banks,the researcher initially targeted all the 43 Commercial banks but this was not possible since after the preliminary survey carried out it was noted that data for only 20 banks was available. This problem was overcomed by the researcher by purposively targeting those commercial banks whose data was available.It was a tedious process and needed a lot of patience since it wasa very slow process. Some of the banks especially those that are still small in operations were not willing to surrender the required

data.Upon acquiring the data, the researcher noted that some commercial banks published their financial reports during the period but due to inconsistency in the reporting style it lead to their exclusion from the study. The study relied on the published financial statements and accompanying reports for data analysis. This limitation was eased by the use of the introduction letter from the Kabarak University and the researchers' own letter.

### 1.8 Operational Definition of Terms

| | |
|---|---|
| Capital | Is a risk-based performance measurement framework for analyzing risk-adjusted financial performance and providing a consistent view of profitability across businesses (Heffernan, 2005). |
| Collateral coverage: | This is what borrowers pledge against credit from banks. Ccollateral is used by banks to reduce credit risk exposure. This was measured by taking the current collateral value divided by previous year's collateral value (Heffernan 2005). |
| Commercial banks: | Are banking organizations that offer wholesale and retail banking services. Wholesale banking typically involves offering intermediary, liquidity and payment services to large customers such as big corporations and governments. Retail banking offers the same services to numerous personal banking customers and small businesses. Retail banking is largely intra-bank: the bank itself accepts deposits and makes many small loans (Heffernan, 2005). |
| Complete write offs: | Normally are those loans that have been proved difficult to collect. This is normally due to destruction of the subject matter, adverse selection and finally in case of death of the debtor. This was computed by taking the total Write offs divided by the Total loans. (Norden& Weber 2010). |
| ICR-based setting of credit | |
| Terms and Conditions: | Means the terms and conditions available on the Website governing the membership of Lending Works, and use of the Website and Lending Works Platform, as amended from time to time (Prilmeier, 2011) |
| Credit risk: | The potential that a bank borrower or counterparty would fail to meet its obligations in accordance with agreed terms (Dohnal, 2008). |

| | |
|---|---|
| Economic capital: | The amount of capital that a firm, usually in financial services, needed to maintain the bank's solvency in the face of unexpectedly large losses (Carlson, Shan, & Warusawitharana, 2013). |
| Financial covenants: | These are restrictions in debt contracts that are written on hard information, i.e. accounting quantities that are verifiable in court (Prilmeier, 2011). |
| Financial performance: | The degree to which the financial objectives of a bank organization have been accomplished (Odonkor*et al.,* 2011). |
| ICR-based Capital Allocation: | This is the process of how a bank divides its financial resources and other sources of capital to different processes, people and projects (Berger & Bouwman, 2013). |
| ICR-based Credit Monitoring: | The process of identifying control breaches, anomalies and high-risk activities at an early stage and employing a firm remediation strategy often prevents and/or minimize the impact of any potential credit impairment (Nakamura & Roszbach, 2013). |
| ICR-based Loan Origination: | The process by which a borrower applies for a new loan and a lender processes that application (Heffernan, 2005). |
| Internal credit rating: | A structured or formal system for approving loans, portfolio monitoring and management reporting, analysis of the adequacy of loan loss reserves or capital, and profitability and loan pricing analysis used by individual banks (Jacobson *et al.,* 2006). |
| Loan Availability: | Loan availability is the measure of how the bank is able to issue loans efficiently to the credit worthy borrowers Measured by Total loans to Number of transactions. (Demetriades and Fielding 2012) |
| Loan concentration: | Loan concentration is the proportion allocated to various sectors of the economy normally used by banks to improve diversification of |

| | |
|---|---|
| | their credit portfolios. This was measured by Herfindahl-Hirschman Index (Shan, Tang & Yan, 2016) |
| Loan loss reserve: | Loan loss reserves are the provisions used to cover for losses that are likely to occur. These reserves are based on past performances and are expected to cover expected losses over a horizon of one year and were computed by taking Total loss provisions and dividing it by Total loans (Treacy & Carey, 2000). |
| Loan Pricing: | Loan pricing is all about the determination of interest rates charged on a credit facility. It was determined by Interest income divided by Total loans (Curcio & Gianfrancesco, 2009). |
| Non-performing loans: | This are the loans that are not serviced by the borrowers calculated by Total Non-performing loans divided by total loans (Matthews 2010) |
| Regulatory capital: | The amount of capital a bank or other financial institution has to hold as required by its financial regulator (Barth, Lin, Ma, Seade, & Song, 2013). |
| Return on Risk Adjusted | |
| Screening effort: | Is a process carried out at the initial stage on borrowers to determine their credit worthiness before a loan is issued to them. It is measured by Total Loans to Asset Ratio (Cole, Kanz and Klapper 2015). |
| Soft information: | Is the information not verifiable by outsiders (Brunner, Pieter, & Weber, 2000). |
| The collateral value: | Is the bank's own estimate of the assets pledged to secure that particular loan (Liberti & Sturgess, 2014). |
| Tier 1 capital: | Tier 1 capital consists of the book value of the common equity, minus most intangible assets such as goodwill, plus the book value of certain preferred equity, with the total adjusted for a few accounting items (Elliott, 2009) |
| Total Capital: | Total capital relates to the entire firm's capital including intangible assets such as goodwill, Total capital is arrived at by adding tier 1 |

capital to tier 2 capital and dividing by Risk weighted Assets (Beltratti&Stulz 2012).

# CHAPTER TWO
# LITERATURE REVIEW

## 2.1 Introduction

This chapter outlined the theoretical literature supporting the study, the various empirical studies that have been undertaken in the study field, as well as provide a schematic diagram depicting relationship among variables in the study through the conceptual framework.

## 2.2Theoretical Literature Review

Two theories were used to underpin the present study; the Theory of Information Asymmetry and Agency Theory. Theory of InformationAsymmetrygives rise to adverse selection and moral hazard, and the classic principal–agent problem between depositors and shareholders and a bank, and the bank and its officers and debtors (Heffernan, 2005).

### 2.2.1 Theory of Asymmetric Information (Lemons Theory)

The theory of asymmetric information is concerned with separating good borrowers from bad ones which occurs as a result of adverse selection and moral hazards problems. The concept of asymmetric information was first introduced through Lemons Theory which was developed by George Akerlof in 1970, who was later awarded with the Nobel Prize (Ata, Korpi, Ugurlu, & Sahin, 2015). The theory has since then been studied in various contexts including labor, insurance, loan and capital markets.Asymmetric information, or differences in information held by parties to a loan contract, is the reason why banks face the problem of adverse selection because the bank, the principal, normally has less information about the probability of default on a loan than the firm or individual, the agent (Heffernan, 2005). Asymmetric information in credit markets arises due to the failure of lenders and borrowers to exchange complete and correct information between each other (Ata *et al.,* 2015). The principal information failure is information asymmetry, referring to parties to a transaction having different amounts of relevant information (Schwarcz, 2014).

The Theory of Asymmetric Information is relevant to the present study in that information differences between the bank and the borrower/potential borrower apply to ICR Loan origination

as it affects the bank's determination of probability of default (Andrianova*et al.,* 2011). It was also influence the contents of the ICR loan contract terms and conditions(Drucker & Puri, 2009) and collaterallization (Cerqueiro*et al.,* 2012). In relation to ICR loan monitoring,the theory acknowledges that intensity of monitoring was affect the likelyhood of moral hazard once the loan has been granted to the borrower (Nakamura & Roszbach, 2013).

### 2.2.2 Principal-Agent Theory

Differences in information between principal and agent give rise to adverse selection and moral hazard (Heffernan, 2005). Adverse selection occurs when a borrower with a high credit risk and low credibility is willing to borrow loan and pay the high interest rate (Ata *et al.,* 2015). The problem of adverse incentives (higher interest rates encouraging borrowers to undertake riskier activities) is another reason why banks reduce the size of a loan or even refuse loans to some individuals or firms (Heffernan, 2005). Moral hazard is an ex-post problem that occurs as a result of the inability on part of the lenders in monitoring the operations of borrowers and can be mitigated by close monitoring of the borrowers after a loan is issued (Ata *et al.,* 2015). It arises whenever, as a result of entering into a contract, the incentives of the two parties change, such that the riskiness of the contract is altered (Heffernan, 2005). As per the study, borrowers are the agents while the banks assume the position of the principals. Agency problems arise because the principal cannot observe and/or have perfect information about the agent's actions. The bank thus uses a sophisticated internal credit rating system so as to ensure that it minimizes losses from all its credit contracts. Consequently, banks with well adopted internal credit rating systems are supposed to have a superior financial performance as compared to their less sophisticated counterparts.

The theory is relevant to the study in that the bank incur agency costs related to the cost of allocated capital since the bank have to allocate more capital to cover losses that may arise as a result of the relationship between the bank and the borrower (Santos *et al.,* 2012). As the bank enters into more loan contracts, it needs to allocate capital to act as a buffer so that loan losses do not lead to bank closure.

## 2.3 Empirical literature

### 2.3.1:ICR-Based LoanOriginationProcess and Financial Performance of Commercial Banks

According toNakamura and Roszbach (2013), banks are uniquely suited to measuring the risks of their borrowers since they possess their private information derived from the transaction accounts.A bank uses the information at hand todo the assessment of the riskiness of loan applicants, the resulting decision to grant credit or not at some risk-adjusted interest rate, and the way in which monitoring of granted loans takes place, are of great importance for all businesses (Jacobson*et al.,* 2006). Thus bank internal credit ratings are taken to be sufficient statistics for determining the creditworthiness of loans (Nakamura & Roszbach, 2013). Consequently, as Cole *et al.*, (2015) assert, internal credit ratings are often strongly predictive of default which is also highly related to the underlying asset quality.

Banks have been using internal credit rating systems to assess the creditworthiness of borrowers in one way or another not only since internal credit rating systems have received closer attention in the discussion of the new capital requirements (Lehmann, 2003). Where information for inclusion in the credit is not available, however, banks often lend based on the relationship with the customer. This is because banks can use either relationship or transactional banking or both in different ways to minimize information asymmetry; and neither arrangement is without its problems, and different countries display varying degrees of these two types of banking (Heffernan, 2005). According to Repullo and Suarez (2012), relationship banking makes banks privately informed about their borrowers, hence making borrowers become dependent on the banks with whom they first start a lending relationship, which captures the lock-in effects caused by the potential lemons problem faced by banks when a borrower switches from one bank to another.

According to Heffernan (2005), given the potential for adverse selection, most banks do not rely solely on loan rates when taking a lending decision. Instead, the availability of a certain type of loan may be restricted to a selected class of borrowers, especially in retail markets.Credit ratings are, therefore, a way to independently conduct an assessment of the relative credit risk of a

customer (Karagozoglu, Jacobs, & Layish, 2016). They can be interpreted as a screening technology that is applied to alleviate asymmetric information problems between borrowers and lenders (Grunert *et al.,* 2005). The rating assignment influences the approval process in that underwriting limits and approval requirements depend on the grade, while approvers of a credit are expected to review and confirm the grade (Treacy & Carey, 2000).Thus, loan availability, effected through credit rationing, involves limiting the supply of additional credit (loan) to the borrowers who are even willing to repay with higher interest (Ata *et al.,* 2015).

Banks can also use the internal credit rating to help ensure they are properly diversified by setting concentration limits: the bank sets a limit on the amount of exposure in relation to a certain individual or sector (Heffernan, 2005).According to Carlson*et al.* (2013), another interesting aspect of the relationship of capital and loan growth is whether there are differences in the sensitivity of growth rates of different types of loans. The types of loans that we consider are Commercial and Industrial (C&I) loans, Commercial Real Estate (CRE) loans, Residential Real Estate (RRE) loans, and Consumer Loans (CL).

The structure of performance incentives strongly affects screening effort, risk-assessment, and the performance of originated loans (Cole *et al.*, 2015). Loan officers who are incentivized based on lending volume rather than the quality of their loan portfolio originate more loans of lower average quality. According to Demetriades and Fielding (2012) loan availability is an important measure of how the bank is able to issue loans efficiently to the credit worthy borrowers in time. For instance, in West Africa, the authors found that majority of the banks lend between 40% and 70% of their assets. This implies that banks that are more efficient in lending operations are able to lend more from their assets. Thus a superior monitoring technology that results from the access to account information might lower the price of credit (Norden & Weber, 2010).

By contrast, high-powered incentives that reward loan performance and penalize bad lending decisions cause loan officers to exert greater screening effort, reduce exposure to loans with higher perceived credit risk, and induce significantly more profitable lending decisions while leading only to a small reduction in lending volume (Cole*et al.,* 2015).High quality customers enjoy a reduction in loan interest rates in banks that adopt the IRB approach (Ruthenberg

&Landskroner, 2008). Hence, credit rating based on a quantitative score that uses an application scorecard at the loan origination stage facilitates and standardizes the decision process (Puri*et al.,* 2011). The idea of the scorecard is to record all data items that have predictive power related for an applicant's default risk.

The pressure to increase the number of grades can lead to more pronounced competitive forces thereby compressing loan spreads(Treacy & Carey, 2000). They observed that a reduction in expected loss factors by a few basis points, or a small decrease in the amount of capital allocated to a loan, may be the difference between a transaction that meets internal profitability hurdle rate and one that does not. Those individuals such as loan officers facing origination and repayment bonuses, which do not penalize defaulting loans, are dramatically more likely to approve loan applications(Cole *et al.,* 2015). Therefore, when setting the price for a proposed new loan facility, it is now fairly common for a banker to first determine the break-even interest rate needed to cover the loan's expected losses and an appropriate margin for credit risk or unexpected losses, determined so that the expected rate of return on the capital allocated to the loan, that is, the Return on Risk Adjusted Capital, or RORAC, achieves the bank's hurdle rate (Jones & Mingo, 1999).

According toPuri*et al.* (2011)study intended to find out how the process of loan making by banks can be regulated to minimize risks, found no evidence that loans approved based on the loan officer's discretion perform any differently than other loans.According to Horvath, Seidler and Weill (2016), increased competition reduces credit supply, as banks are less likely to grant credit to clients that are not locked-in.Hence, the assessment of credit involves a complex tradeoff between risk and return in an environment with high aggregate and peculiar risk (Cole *et al.,* 2015).

### 2.3.2:ICR-Based Setting of Credit Terms and Conditionsand Financial Performance of Commercial Banks

According to Norden& Weber (2010), access to private and timely information may explain why banks apply different types of lending technologies to certain borrowers, such as relationship lending. Dohnal (2008) defines Credit Risk Mitigation (CRM) as a technique used by a credit

institution to reduce the credit risk associated with an exposure or exposures which the credit institution continues to hold.Roberts (2015)points out that the contractual mechanisms that control the allocation of decision rights with major terms and conditions touches onthe facility maturity, amount, interest rate spread, and covenant package. Loan contract information, therefore, should include all variables used to characterize it, including contractual terms, such as fixed versus adjustable rate status, duration, benchmark rate, payment structure, prepayment penalty structure, loan purpose, including home purchase, refinance, primary vs. secondary lien, loan size, leverage such as Loan-to-Value ratio (LTV) and Combined Loan-to-Value ratio (CLTV)], interest rate, origination channel (broker versus bank origination), documentation requirement (full-documentation versusvarious levels of reduced documentation), and securitization (Jiang, Nelson, & Vytlacil, 2014).

Liberti and Sturgess (2014)also observe that some of the major contractual term items that the lender and the borrower need to agree on include the size of loan, the value and type of any collateral used to secure the loan, and interest rate spread on the loan at initiation. Covenants should not be set so as to bring about renegotiation viatechnical default because control should remain with the better-informed party to avoidinformation distortions and to provide better incentives for informationacquisition (Roberts, 2015).Thus a better internal credit rating leads to a greater reduction in interest rates (Qian*et al.,* 2015).Fredriksson and Moro (2014) observe that the performance of a bank is the result of the margin that the bank is able to extract from each of its relationship with its customers. The margin generated by these relationships is the result of the bank's ability to sell different products to customers at the right price, whether that is a fee on services or the interest rates on loans.Moreover, as Jacobson*et al.* (2006)asserts, determining appropriate risk-based pricing on individual loans should place greater importance on risk-management at the time of the initial screening decision; more so, in emerging credit markets, characterized by severe information asymmetries, limited credit information and poor enforceability of debt contracts (Cole*et al.,* 2015).

If the costs of covenant enforcement or renegotiation are too high, then sold loans could have fewer and looser covenants (Drucker & Puri, 2009). Debt covenants can enhance ability of banks to protect their claims if borrowers' credit quality deteriorates (Vashishtha, 2011). Further, debt

covenant violations generally result in negative consequences on the borrowers, including increases in interest rates, requests for early debt repayment, and additional restrictions on the borrowers' activities (Ahn & Choi, 2009). Similarly, Vashishtha (2011) asserts that covenant violations are associated with a transfer of control rights from shareholders to banks who can then use the threat to demand immediate re-payment of the outstanding principal and interest to wield significant influence over firm policies that fall within or outside the scope of the credit agreement. According to Liberti and Sturgess (2014) collateral has implications on interest rate spreads in that if collateral is used to share default risk then collateral and interest rates are substitutes. Alternatively, interest rates and collateral are positively related in that as interest rates increase, agency problems also increase requiring increase in collateral for mitigation.Perfectly collateralized lending is, by definition, immune to changes in information thereby making private information is simply irrelevant (Athreya*et al.* 2011). By contrast, in the case of unsecured debt, formal collateral is totally absent. As a result, changes in the asymmetry of information waslikely have consequences for prices and allocations.

A collateralized transaction is a transaction where the credit exposure or potential credit exposure of the credit institution to a counterparty is hedged, in whole or in part, by collateral posted by the counterparty or by a third party on behalf of the counterparty (Dohnal, 2008). Collateral may be used as a commitment mechanism against agency risk or for hedging against expected default risk (Liberti & Sturgess, 2014). It is one of the most common characteristics of loan contracts. Adverse selection problem in credit markets can be mitigated through collateral requirements and credit rating services (Ata *et al.,* 2015). Adverse selection is a problem that occurs between lenders and borrowers where banks or financial institutions issue a loan to a risky customer. A collateralized loan is a loan that is secured by a borrower's tangible assets (Ahn & Choi, 2009). Collateral systems provide information to alert lenders to the potential existence of prior interests in collateral and give creditors who register assurance of their priority in the collateral, reducing risk to lenders and facilitating access to credit (Brook & Stein, 2009).

According to Fisman*et al.* (2012), lower default rates should reduce the average cost of borrowing. Since loan interest rates in most cases are fixed, collateral acts as a proxy for the borrowing cost where higher risk borrowers post more collateral holding the interest rate

constant, while collateral to loan ratios are lower for in-group loans with high loan growth rates typically indicate higher credit risk (Wang & Cox, 2013). Collateral, therefore, is one of the most important features of many debt contracts and is used to improve information asymmetries between borrowers and lenders (Cerqueiro, Ongena, & Roszbach, 2012). Losses are generally understood to be influenced by key transaction characteristics such as the presence of collateral and the degree of subordination (Henneke & Trück, 2005).

According to Jiang *et al.* (2014), a bank can obtain costly and imperfectly correlated signals regarding loan quality and can potentially apply incremental information advantage arising from soft information collected at the time of loan origination. According to Demetriades and Fielding (2012) banks, by screening loan applicants, can help to address adverse selection in the credit market and channel funds towards productive uses. Hence, past default appears substantially more correlated with credit terms now than in past decades (Athreya *et al.,* 2011). In particular, the positive correlation of interest rates with past defaults may be seen as a form of "punitive" sanctions imposed by creditors. However, under competitive lending and full information, such penalties were not viable. Nonetheless, given the persistence of shocks, the income events that trigger default may as well persist, and therefore justify risk premium on lending. According to World Bank (2013), the difference between market lending rates and short-term T-bill rates can be interpreted as the risk premium, and reflect the market's perception of risk.

This spread can be taken as a measure of the risk premium faced by banks, without the proper assessment of risks, prediction of banks' performance was biased (Wang & Cox, 2013). Consequently, the bank can improve its pricing since as Qian*et al.* (2015)observed, with better incentives, the bank impounds better information into loan interest rates which in turn leads to interest rates' greater power to predict future default. According to Fredriksson and Moro (2014), it is then extremely important for a bank to price customer services according to their risk where the higher the risk, the higher the interest rate charged and the higher the fees for additional services and vice versa. Improved internal credit rating, by enhancing bank competition are likely to influence bank pricing policies leading to diminished loan rates and increased deposit rates, thus stimulating demand for loans by alleviating financing obstacles (Horvath*et al.,*

2016).The risk premium charged on the loan plus fees should be enough to cover for expected losses (Heffernan, 2005).

Banks are able to benefit from their ability to price according to the risk of loaning to the customer by retaining at least a part of the incremental risk-adjusted profitability (Fredriksson & Moro, 2014).According to Foos, Norden and Weber (2009), new loans that have been granted in order to abnormally expand a bank's credit portfolio are priced at a lower rate than loans granted by banks that intend to maintain their current credit exposure.Likewise, according to Allen and Santomero (1998), the advent of the technological revolution has substantially reduced the cost of information and reduced information asymmetry. Thus moral hazard may make it be in the interest of stakeholders to require risk management as part of standard operating procedures. On the other hand, financial covenants can be used to reduce agency costs between debtholders and shareholders, aid in monitoring the borrower, and give the lender an incentive to monitor in the first place(Prilmeier, 2011). If the restriction stipulated by a covenant is violated, the lender obtains the right to demand immediate repayment of the loan. Debt covenants help reduce agency cost and increase firm value through monitoring and creditor control (Liu, 2015).

According toTreacy and Carey (2000) collateral and loan structure play a role in grading both in practical terms and in the definitions of grades. The usual procedure is to first determine the borrower's grade, that is, its Probability of Default (PD) and then to set the facility grade equal to the borrower grade unless the structure of the facility makes likely a Loss in Event of Default (LIED) that is substantially better or worse than normal.One of the main reasons why banks perform governance activities is to reduce credit risk (Ahn & Choi, 2009). Banks ought to be able to reduce credit risk marginally by turning down less attractive loans and by imposing covenants or other features that reduce the bank's risk of loss (Elliott, 2009).According to Heffernan (2005), credit risk rises if a bank has many medium to low quality loans on its books, but the return was high. The banks was opting for a portfolio of assets with varying degrees of risk, always taking into account that a higher default risk is accompanied by higher expected return. Since much of the default risk arises from moral hazard and information problems, banks must monitor their borrowers to increase their return from the loan portfolio.

### 2.3.3:ICR-Based Credit Monitoringand Financial Performance of Commercial Banks

After loan origination, the bank enters the post-loan management phase, actively monitoring the borrower and continuing to reassess repayment risk (Qian*et al.,* 2015). Bankers have long recognized that knowing your customer is the first line of defense against credit losses (Jones & Mingo, 1999).To those customers who default, the bank can also take a number of other actions, for example, it can take ownership of collateral, ask the guarantor(s), whether they are individuals, firms, or other entities, of the loan to repay, or take the firm to court(Qian*et al.,* 2015). Thus banks by monitoring borrowers can contain moral hazard behavior, for example, by averting excessively risky investment activity that could undermine a borrower's ability to repay a loan (Demetriades & Fielding, 2012).

According to Grunert *et al.* (2005), since the objective of assessing a borrower's creditworthiness is to specify his or her probability of default over a given time horizon, banks should base internal credit rating on borrowers' current condition (point-in-time) and also follow a "through the cycle" for it to be deemed beneficial by leading to a more accurate prediction of default events.Moral hazard is a problem that arises between lenders and borrowers after a transaction occurs, and in credit markets, it stems from the inability on part of the lenders to monitor the operations of borrowers and can be mitigated by close monitoring of the borrowers after a loan is issued(Ata *et al.,* 2015).

According to Treacy and Carey (2000) a bank uses internal credit ratings mainly to identify deteriorating or problem loans to ensure proper monitoring.A bank therefore should devotes more effort in detecting a borrower's opportunistic behavior when the bank lends more money to the firm (Ahn & Choi, 2009).Thus bank loan monitoring involves making decisions based onafter transaction outcomes based on repayment history of the loan (Qian*et al.,* 2015).According to Treacy and Carey (2000), ratings are assigned and monitored either by Relationship Managers (RMs) or the credit staff. All banks evaluate the performance of RMs, and thus set their compensation, on the basis of the profitability of the relationships in question, although the sophistication of methods of assessing performance and determining compensation varies.

According toNorden and Weber (2010), a commercial bank loan officer has access to fine-grained information about a borrower's activities through its operating account, as he or she can observe transactions on an item-by-item basis and compare them to the borrower's pro forma business plan.Therefore, a bank's monitoring activities can provide borrowers with incentives to avoid earnings management, thereby reducing credit risk (Ahn & Choi, 2009). Also, by providing linked financial services, the bank can access information that is private, timely, quasi costless, and reliable (Norden & Weber, 2010).Credit ratings had to be updated at least once every 12 months or whenever a change in the bank's commitment takes place (Jacobson *et al.,* 2006). According to analysis by Norden and Weber (2010), account activity is especially informative for severe and unexpected defaults, and that clear early warning indications increase the likelihood that the bank writes off the loan completely at default.Loan loss reserves can then be used to cover losses already "embedded in the portfolio," and the generally accepted interpretation is that reserves for past loans should cover expected losses over a horizon of one year (Treacy & Carey, 2000).

As Fisman*et al.* (2012)observed, the increase in lending was as a result of credit expansion to (lower-quality) marginal borrowers, leading to a deterioration in average lending quality.Norden and Weber (2010) distinguish between borrowers' account activity before "hard" and "soft" defaults where hard defaults involve bankruptcy filing and soft defaults involve specific loan loss provision. Hard defaults are publicly observable and exogenous, while the timing and occurrence of soft defaults are partly under control of the bank.According to Treacy and Carey (2000) the credit staff responsible formonitoring portfolio credit quality and regular review of individual exposures or directly assigning ratings of individual exposures should be genuinely independent of sales and marketing functions where the two have separate reporting structures and where the performance assessment of the credit staff should be linked to the quality of the bank's credit exposure rather than to loan volume or business line or customer profitability.According to Ahn and Choi (2009), the strength of bank monitoring should be measured by the magnitude of a bank loan, the reputation or rank of a lead bank. Hence, where bank risk management is inadequate, solvency of the bank may be threatened, where insolvency is defined as a negative net worth, that is, liabilities in excess of assets (Heffernan, 2005).

Curcio and Gianfrancesco (2009) observe that credit risk can generate two types of losses, that is, Expected Loss (EL) and Unexpected Loss (UL). EL depends on the borrower's PD and the LIED. Assuming the independence between PD and LIED the Expected Loss Rate (ELR) for a single loan/borrower j is simply given by the following product: PDj×LIEDj, whereas, for a whole credit portfolio, it is the sum of each loan's ELR. Since they are expected, these losses must be hedged by adequate accounting loan-loss provisions and represent a physiological cost of bank lending activity. Asset quality is computed as the ratio of impaired loans to gross loans (Chiaramonte*et al.,* 2015).The banks weresetting aside reserves to cover expected losses. A bank also sets aside capital as a buffer because of unexpected losses, which is measured by the volatility (or standard deviation) of credit losses (Heffernan, 2005).

The reputation of lenders indicates a level of expertise in dealing professionally in the market and indicates credibility in exercising due care as financial intermediaries (Ahn & Choi, 2009). Thus banks with higher credit rating are highly motivated to monitor firms to maintain their credit ratings which stand proxy for reputation.Since much of the default risk arises from moral hazard and information problems, banks must monitor their borrowers to increase their return from the loan portfolio (Heffernan, 2005). Hence, more reputable banks are likely to more intense in loan monitoring, thereby leading to reduced loan losses (Ahn & Choi, 2009).

After approval, the individual that assigned the initial grade is generally responsible for monitoring the loan and for changing the grade promptly as the condition of the borrower changes (Treacy & Carey, 2000).According to Nakamura and Roszbach (2013), banks receive noisy signals of the borrower's creditworthiness which they process and report in a seasoned form as a discrete categorical rating. Covenant violations allow for quick intervention, which protects the buyer from wealth expropriation by the borrower and reduces the importance of the seller's information and effort (Drucker & Puri, 2009).Bank examiners, among other responsibilities, identify high risk and troubled loans and ensure they are properly classified into the regulatory problem asset categories. The volume of assets in such categories has important implications for loan loss reserve requirements and for examiners' appraisal of the general quality of a bank's assets (Treacy & Carey, 2000).Internal credit ratings play an important role not only as a first step in the credit risk measurement process, but also as an important stand-

alone risk management tool. Credit ratings are a basis for continuous loan review processes, under which large credits generally are reviewed and regraded at least annually in order to focus attention on deteriorating credits well before they become criticized by external auditors or examiners (Jones & Mingo, 1999).

In case of loans to medium-size and smaller firms, the RMscan be in the best position to appraise the condition of the borrower on an ongoing basis and thus to ensure that ratings are updated on a timely basis (Treacy & Carey, 2000). Banks that actively monitor borrowers over the course of their relationship acquire private information, which gives them an information advantage relative to competing potential lender banks and other outside investors such as dispersed bondholders and shareholders, who are relatively more reliant on public disclosures to obtain information about the firm (Vashishtha, 2011).

According to Nakamura and Roszbach (2013), if banks collect private information about the borrowers they monitor in addition to public information from a credit bureau, and if internal credit ratings summarize the information included in them, then bank credit ratings should be able to forecast future changes better than the credit bureau ratings. However, monitoring may not be continuous, but is intended to keep the rater well enough informed to recommend changes to the internal risk grade in a timely fashion as needed (Treacy & Carey, 2000). Updates to the risk grade usually require approvals similar to those required to initiate or renew a transaction.According to Shan *et al.* (2016),, banks need to manage their loan concentration and improve diversification of their credit portfolios. However, banks that focus on a concentrated group of firms or sectors may accumulate relatively more information on the borrower hence improving internal credit rating predictive power of loan default. Hence, the researchers recommend the use of Herfindahl-Hirschman Index to measure loan concentration, which can be calculated using the formula:

$$Loanconcentration = \sum_{i=1}^{n} {S_i}^2$$

Where$s_i$ is the share of the $n^{th}$ loan type group in the total population of the bank. This measure is larger for a more concentrated loan portfolio, and n is the number of loan type categories.According to Puri*et al.* (2011)Herfindahl-Hirschman Index measures loan

concentration, by first calculating the ratio of each loan amount relative to the total loan amount from the same bank in the same year, then summing the squared ratios.

### 2.3.4:ICR-Based Capital Allocationand Financial Performance of Commercial Banks

According toJacobson *et al.* (2006), the regulations under Basel II made the size of the required buffer capital contingent on banks appraisal of an individual counterpart risk. UL is function of the PD variability and the correlation between the portfolio assets and must be covered by an appropriate amount of economic capital (Curcio & Gianfrancesco, 2009). Ex post, UL equals the difference between the actual loss and EL. Ex ante, the unexpected loss can be measured through a portfolio model based on a Value-at-Risk (VaR) methodology (Curcio & Gianfrancesco, 2009). Basel II allowed banks to use credit ratings in the calculation of their regulatory capital requirements as well (Lehmann, 2003).The impact of regulatory capital requirements on bank lending has seen renewed attention in the wake of the recent financial crisis as concerns arose that large losses at banks would reduce their capital and restrain their lending (Carlson *et al.,* 2013). Throughout the world, by the end of 2008, many banks had seen most of their equity destroyed by the crisis that started in the US subprime sector in 2007 (Beltratti & Stulz, 2012).

Capital regulations have long been important in the banking industry so as to limit the extent to which individual banks are able to leverage. Higher capital requirements lead to lower leverage so that it takes larger losses to wipe out the equity of a bank. Setting minimum capital requirements is therefore a way to provide a cushion to lessen the likelihood of insolvency of a bank due to lossesBarth *et al.* (2013).The new Basel III rules provide a more restrictive definition of what counts as capital, increase the proportion of capital that must be of proven loss absorbing capacity, that is, core Tier 1 (narrowly defined, equity) capital, over Basel II requirements (Howarth & Quaglia, 2012). Thus, according to Barth*et al.*(2013), before minimum capital adequacy is determined, the following are deducted from the book value of capital: Market value of loan losses not realized in accounting books; unrealized losses in securities portfolios; unrealized foreign exchange losses.Under this approach the amount of capital a bank is required to hold in order to cover potential future losses, is no longer a fixed percentage as in the first accord but determined by a more refined system (Henneke & Trück, 2005). Within economic capital allocation systems, a critical distinction is made between expected credit losses

and the uncertainty of credit losses or credit risk. These systems generally assume that it is the role of reserving policies to cover expected credit losses, while it is the role of equity capital to cover credit risk (Jones & Mingo, 1999).

According to Ojo (2013), the Basel II Capital Accord is an illustration of the operation of meta regulation owing to the fact that bank capitalization is not to be imposed externally by regulators but to be determined by a bank in accordance with its own internal risk management models and this is subject to the fact that such models are regarded by the regulators as being adequate.The Accord has had a major impact on how banks in most countries determine their regulatory capital, since with these new regulations, banks are allowed to use their own credit risk estimates, produced by internal credit rating systems, to determine the minimum capital to be set aside to cover the risk associated with lending (Barriga *et al.,* 2015). Low capital and risky assets are major causes of banks distress (Chiaramonte*et al.,* 2015). One can loosely speak of Value at Risk as the amount of capital which can be lost within the next year, if the next year is a really bad one (Henneke & Trück, 2005). Accordingly, following the financial crisis of 2008, policy makers around the world have concentrated their efforts in designing a regulatory framework that increases the safety of individual institutions as well as the stability of the financial system as a whole (Behn, Haselmann, & Vig, 2014).

Berger and Bouwman (2013), while suggesting that the bank's portfolio, screening, and monitoring choices are influenced by the bank's capital structure, if they are held fixed, then this buffer role immediately implies that higher capital increases the survival probability. This is the mechanical effect of higher capital. Thus according to Mehran and Thakor (2009), each bank has an optimal capital structure since capital affects how banks compete and provide intermediation service. IRB method is arrived at by factoring measures such as unexpected losses and expected losses. Capital requirements for the UL portion is arrived at by using the risk-weighted functions, and the Expected losses are handled separately (Henneke & Trück, 2005). Larger capital cushions allow banks to write-off bad loans in the future and make them less prone to distress during the financial crisis (Chiaramonte*et al.,* 2015).Other questions that remain to be uninvestigated previously relate to the match between the internal credit rating capital allocation and regulatory capital requirements, the sources of rating differences between banks and the

sensitivity of credit loss distributions to both changes in the riskiness of lending policies (intrabank) and risk profiles (interbank) (Jacobson *et al.,* 2006). When the economy takes an unexpected sharp turn, highly leveraged banks must liquidate assets at a price much lower than the fundamental value to meet the required haircut. The liquidation wipes out the banks' capital and causes bank failures (Wang & Cox, 2013).

Simplifying slightly, banks must generally have a ratio of "Tier 1" capital to total assets of at least 4% to be considered well-capitalized. Tier 1 capital consists of the book value of the common equity, minus most intangible assets such as goodwill, plus the book value of certain preferred equity, with the total adjusted for a few accounting items (Elliott, 2009).The process of estimating the additional economic capital needed as a result of making any given loan is complex but, as a practical matter, the loan's internal rating is a primary,if not the sole, operational determinant of the capital allocations imposed by current risk-sensitive profitability models (Treacy & Carey, 2000).

However, excessive amount of such capital may be undesirable given that regulatory capital involves an opportunity cost as it cannot be used for other, profitable purposes (Santos, Nogales, Ruiz, & Van Dijk, 2012). Hence, they recommend that it is more preferable for banks to lower their capital charges through the use of their own system of risk management.The value at risk and its components, the expected and unexpected loss, are critical in defining the volume of bank capital and loan loss reserves necessary to achieve a predefined level of protection for the banking system (Majnoni, Miller, & Powell, 2004).Moreover, risk managers and regulators around the world now share the view that banks ought to meet minimum capital requirements that are sensitive to all the risks borne, including interest rate risk and credit risk (Brunner *et al.,* 2000).It is then important to ensure the proper calibration of bank capital and loan loss reserves is to achieve the desired level of risk coverage (Majnoni *et al.,* 2004). According to Santos *et al.* (2012),banks are required to set aside a minimum amount of regulatory capital to cover potential losses arising from exposure to risks including market, operational and credit.

According toShan*et al.* (2016), measures capital quality and composition include Tier 1/total capital ratio, the Tier 1 leverage ratio (Tier 1 capital/(non-risk-weighted total assets – intangible

assets)) and the tangible equity ratio ((equity capital – goodwill – other intangible assets)/total average assets), respectively. Where economic capital allocations also have been incorporated into risk management processes, including risk-based pricing models for credit products, it facilitates the setting of portfolio concentration and exposure limits, including day-to-day portfolio management (Jones & Mingo, 1999).According to Ojo (2013)the major criticisms leveled against 1988 Basel Accord was that it rewarded risky lending since it required banks to set aside the same amount of capital against loans to shaky borrowers as against those with better credits.

Shan *et al.* (2016) observe that Tier 1 capital ratio is a better measure of bank capital adequacy because compared with the total capital ratio, which includes reserves, general provisions andsubordinated term debt, Tier 1 capital is a core measure of a bank's financial strength.According to Carlson *et al.* (2013), regulatory capital consists of the total risk-adjusted capital ratio and risk-adjusted tier 1 capital ratio, or leverage ratio.

**2.4 Research Gap**

Grunert*et al.* (2005)havereferred to the uses of ICR as a basis for loan approval, pricing, monitoring, and loan loss provisioning; among others. However, no subsequent study followed up on this relationship to establish the impact (Jacobson*et al.,* 2006; Treacy& Carey, 2000; Ruthenberg&Landskroner, 2008). Similarly, while Heffernan(2005) concurs that managing credit risk is the ‘‘bread and butter’’ of most commercial banks. A number of other studies also investigate pre-and post-crisis bank performance based on various measures related to ICR such as credit supply (Ata *et al.,*2015); liquidity (Cornet); loan pricing (Curcio & Gianfrancesco, 2009); risk-taking and loan contracting (Odonkor *et al.,* 2011; Wang& Cox, 2006; Foos*et al.,* 2009; Druker&Puri, 2009; Liu, 2015; Puri*et al.,* 2015); monitoring (Nakamura & Roszbach, 2013); and capital allocation (Jones & Mingo, 1999). None of them links these measures to bank financial performance (Jiang *et al.,* 2014). Therefore this study sought to fill the gap by examining the effects of ICR on financial performance of commercial banks.

## 2.5 Conceptual Framework

The conceptual framework comprises the independent variable ICR-based loan origination, ICR-based setting of credit terms and conditions, ICR-based credit monitoring and ICR-based capital allocation in accordance with loan risk profiles. The study usedRORAC as the measure of bank performance. According to Heffernan (2005), by measuring the risk of the credit portfolio, the bank can decide on how much capital should be set aside to ensure that the exposure of its depositors isminimized, for a given probability of loss. RORAC is used to manage risk related to different business units within a bank and is also employed to evaluate the financial performance. The difference between RORAC and the more traditional measures such as return on assets (ROA) or return on equity (ROE) is that the latter two measures do not adjust for the differences in degree of risk for related activities within the bank.

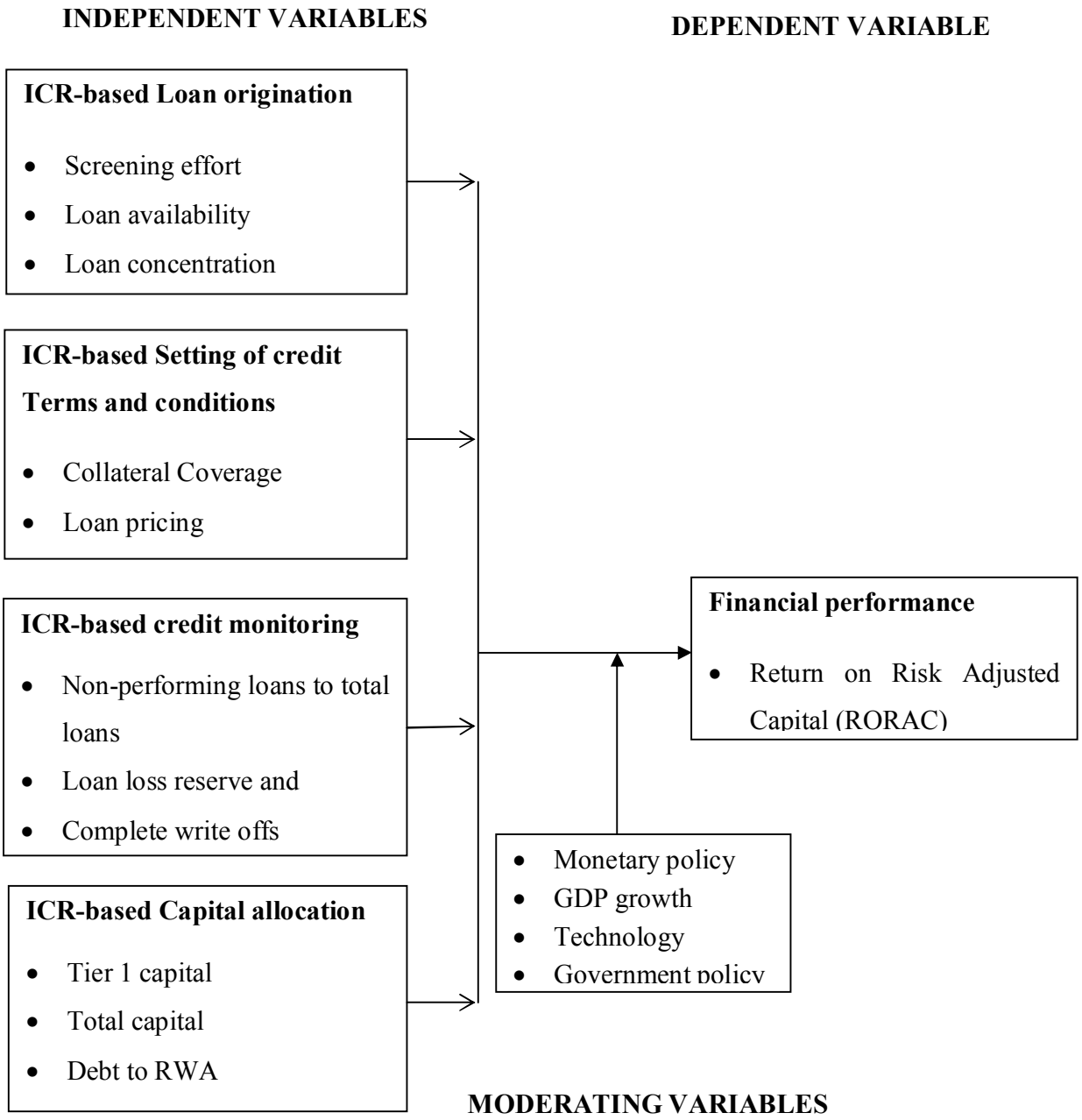


*Figure 2.1*: Conceptual Framework

Source: Researcher (2016)

# CHAPTER THREE
# METHODOLOGY

## 3.1 Introduction

This chapter provided anoutlineof the study research process including the design, study area, target population, sampling design, data collection instruments and procedures, and data analysis.

## 3.2 Research Design

A longitudinal design was used in the study. A longitudinal design is a research study where a sample of the population is studied at intervals to examine the effects of development.The design was suited to the study because it couldallowproviding descriptive accounts of the situations as they exist at the time spanning the study duration.According to Saunders, Lewis and Thornhill(2009) the main strength of longitudinal research is the capacity that it has to study change and development over time. Hence the design helped in portraying an accurate profile of ICR over time among the banks in Kenya resulting in widening of current understanding of the effects of ICR on the financial performance of banks.

## 3.3 Study Area

The study was carried out in Kenya. The choice of country level analysis was informed by Horvath*et al.* (2016)assertionthat such a single country study enables detailed bank-level data at a sufficient level of disaggregation.

## 3.4 Target Population

The study population consisted of the universe of 20commercial banks licensed and operating in Kenya in the years 2006 to 2015. The ten year study period was to ensure more recent data in line with Heffernan (2005) suggestion that risk measured should be based on a 5 or 10-year time horizon.

### 3.5 Sampling Techniques

This studypurposively involved the 20 Commercial banks in the population after a preliminary survey to establish the availability of data. The researcher found that the reports for these 20 commercial banks were reported consistently, thus the researcher used purposive criterion on the 20 commercial banks registered and licensed to operate in Kenya formed the study sample.

### 3.6 Data Collection Instruments and Procedures

To gain access to company data needed for the fulfillment of the study objectives, an introduction letter waspresented to National Commission for Science, Technology and Innovation (NACOSTI), both from the researcher and fromKabarak University for authorization to conduct the study. A request was then submitted to each participating organization for an access to company reports, attaching the detailed authorizations from Kabarak University and NACOSTI. A secondary data capture sheet wasthen used to collect the relevant data items from the annual reports of the commercial banks according to study timeline once the reports have been availed by the banks. Secondary data capture sheet was preferred for data collection since it enabled collection of secondary data that were considered more valid and reliable, hence more useful informationwas captured.

### 3.7 Validity and Reliability of Research Instruments

Validity is the appropriateness, meaningfulness, and usefulness of the specific inferences made from the measures while reliability is the degree to which observed scores are free from errors of measurement (Dooley, 2001). Use of audited reports and official statistics has documentary sources of data helped in ensuring objectivity, credibility and genuine accuracy of the data hence high reliability (Denscombe, 2007). The relianceon published reports/ data ensured that the measures applied matches those needed for the fulfillment of study objectives hence high validity(Saunders, Lewis, & Thornhill, 2009). In addition, reliability was ascertained by collecting data from the source (Dooley, 2001).

### 3.8 Data Analysis

Data analysis involved the process of editing, coding, classification and tabulation of data (Kothari, 2008). The data analysis was carried out using panel data regression technique and was tested via use of STATAcomputer program. The use of descriptive statistics and inferential statistics was applied, descriptive statistics consisted of mean, median, standard, minimum and maximumdeviation while inferential statistics comprised of correlation analysis, and regression analysis. The researcher used the panel data models as follows;

Ordinary Least Squares Model:

$Y_{it} = \alpha+\beta_1X_{1t} + \beta_2X_{2t}+ \beta_3X_3t +\beta_4X_{4t+}\varepsilon_{it}$

FixedEffect model:

$Y_{it}= (\alpha_i +\mu_i) + \beta_1X_{1t}+ \beta_2X_{2t} + \beta_3X_{3t} + \beta_4X_{4t}+v_{it},$

Where, $\varepsilon_{it} = (\mu_i + v_{it})$, and

Random Effect model:

$Y_{it}=\alpha+ \beta_1X_{1t} + \beta_2X_{2t} + \beta_3X_{3t} + \beta_4X_{4+ (}\mu_i+v_{it})$

Where $Y_{it}$ is the measure of bank performance (RORAC) for bank i at time t.

$\beta_0$ = constant,

$\beta_1, \beta_2, \beta_3,\beta_4, (\beta_i)$ = regression coefficients and

$X_1, X_2, X_3, X_4(x_{it})$ = regression variables.

Where:

$X_1$=ICR based Loan Origination,

$X_2$=ICR based Setting of credit terms and conditions,

$X_3$=ICR based credit Monitoring,

$X_4$=ICR based Capital allocation,

$\alpha$ = General intercept

$\alpha_i$= Intercept for each entity,

$\mu_i$= Individual error/ bank specific error and

$v_{it}/\varepsilon_{it=}$ Random error terms.

### 3.9 Ethical Consideration

In any research, the following ethical issues need to be considered: Informed consent, privacy, confidentiality and protection from harm (Johnson & Christensen, 2008). The informed consent protects the participating banks and as such, the researcher cannot include a bank in the study without getting approval from NACSOTI. This protects the individual banks from harm and protects the researcher from litigation or having their research deemed invalid or unethical. With regard to confidentiality, the researcher guaranteedanonymity of the information collected for the banksand its intended purely for research purpose. Moreover, this study will adhere to the Kabarak University research ethics policy. The research will comply with the University's code of conduct throughout the study. In addition, all sources, used in the study are acknowledged.

# CHAPTER FOUR
# DATA ANALYSIS, PRESENTATIONS AND DISCUSSION

## 4.1 Introduction

The purpose of this chapter was to analyse the effects of internal credit rating on the financial performance of commercial bank in Kenya, thereafter presented the results from analysis, findings and discussions.

## 4.2 Response Rate

The researcher's preliminary survey found that 20 commercial banks consistentently reported their financial reports and relevant data necessary for the research, therefore forming the targetpopulation of the study. This means that the response rate was 100% based on data availability, representing 77% market share of the Banking sectorindustry in Kenya (CBK, 2012) as seen on Appendix V. When a sample is chosen well out of a given population, it often gives a good reliability(Mugenda & Mugenda, 2003).

### 4.2.1 Descriptive Statistics

Table 4.1

*Data Description*

| | (1) | (2) | (3) | (4) | (5) |
|---|---|---|---|---|---|
| Variables | N | Mean | Sd | Min | Max |
| RORAC | 144 | 0.190 | 0.144 | -0.433 | 0.612 |
| Screening Effort | 155 | 0.527 | 0.624 | 0.0102 | 5.782 |
| Loan Availability | 155 | 0.609 | 0.138 | 0.201 | 0.975 |
| Loan Concentration | 140 | 0.235 | 0.0907 | 0.0807 | 0.701 |
| Collateral | 136 | 0.399 | 0.716 | 0.00152 | 4.177 |
| Loan Pricing | 150 | 0.184 | 0.0523 | 0.0134 | 0.423 |
| Non-performing loan | 147 | 0.0402 | 0.0342 | 0.00302 | 0.212 |
| Loan Loss Reserve | 154 | 0.0182 | 0.0363 | 0.000365 | 0.373 |
| Complete writes Offs | 134 | 0.0165 | 0.0297 | 7.16e-05 | 0.229 |
| Tier1 Capital | 198 | 0.213 | 0.117 | 0.0749 | 0.705 |
| Total capital | 198 | 0.231 | 0.117 | 0.0939 | 0.716 |
| Debt | 158 | 0.860 | 0.211 | 0 | 1.313 |
| ICR | 141 | 2.700 | 0.538 | 0 | 2.987 |
| ICR-based Loan Origination | 139 | 1.260 | 0.182 | 0.751 | 1.988 |
| ICR-based setting of credit terms and conditions | 136 | 1.043 | 0.149 | 0.267 | 1.234 |
| ICR-based credit monitoring | 133 | 0.0750 | 0.0727 | 0.00993 | 0.407 |
| Capital allocation | 158 | 1.272 | 0.237 | 0.379 | 2.078 |

The study aimed to investigate how bank ICR practices affect their financial performance in Kenya. To operationalize the financial performance of the banks, the study utilized the variable

RORAC referring to the Return on Risk Adjusted Capital. Since banks operate in environments that are characterized by risks stemming from various sources including their own operations, the industry factors as well as macro-economic factors, RORAC was especially suited for the study as it scales the bank returns on capital based on the volatility of those returns during the 10 year period under study. Hence the average bank RORAC per bank ranged from the least of 1.35% to the highest of 36.44% over the study period. These figures indicate that the banking sector performed well during the period with most banks posting positive RORAC. However, there were a few instances of negative financial performance among certain banks accounting for their low general performance. As Figure 4.1 illustrates, bank number 13 did not present all the relevant variables for computation of RORAC and therefore their financial performance figure is missing from the presentation.

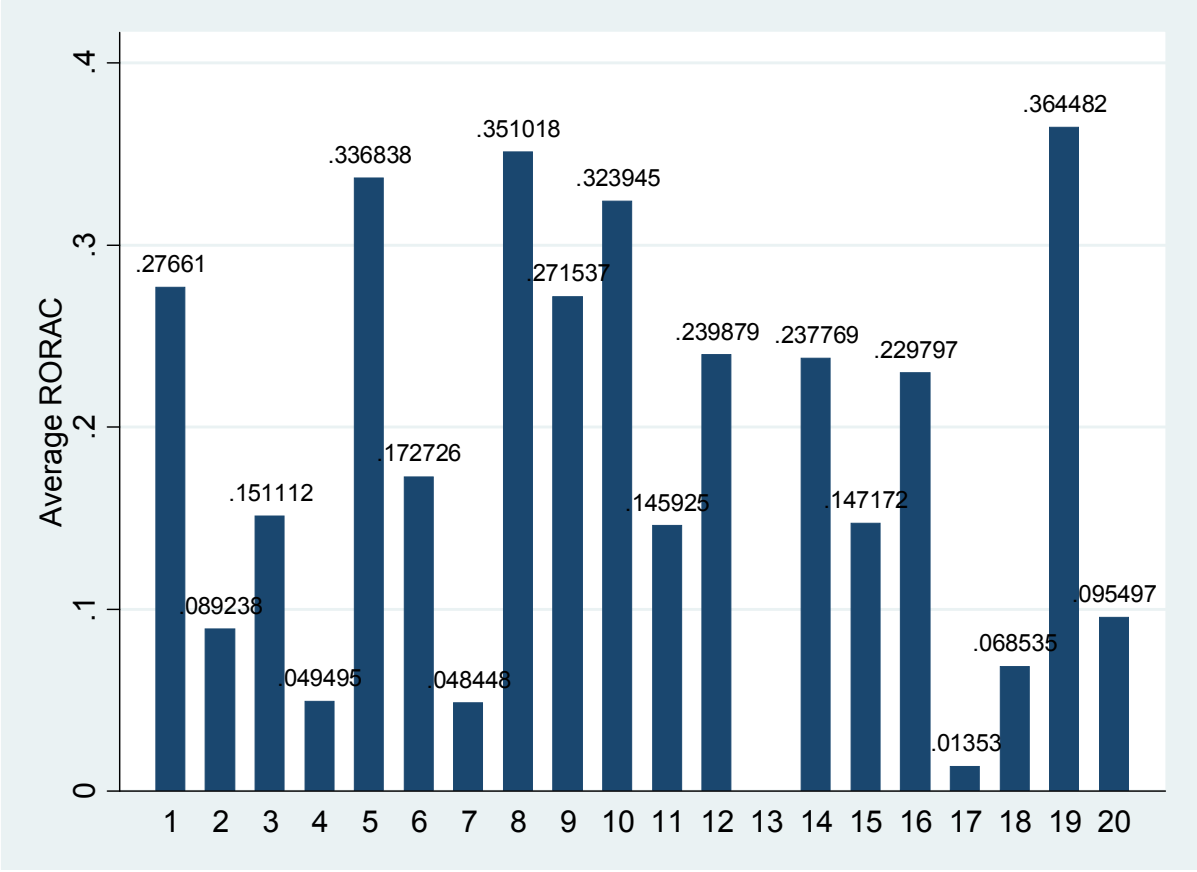


*Figure 4.1*: Average RORAC by Bank

The data used for the analysis incorporated five main compose components, including the dependent variable RORAC and four independent variables ICR-based Loan origination, ICR-based setting of Credit terms and conditions, ICR- based Loan monitoring and the ICR-based Capital allocation. These components in urn had sub-components that were used to measure them and develop a representative index for each main component. Accordingly, RORAC had a mean of 19%, which was reflective of high financial performance in the banking sector in Kenya ($\bar{x}$ = 0.19, sd = 0.144).Under the independent variables, sub-component measures were also recorded so as to provide a holistic picture not only of the main effects but also the attributes of individual components. Thus ICR-based Loan origination had a mean value was 1.26 ($\bar{x}$ = 1.26, sd = 0.182). Components related to ICR-based Loan origination included Screening Effort ($\bar{x}$ = 0.527, sd = 0.624); Loan Availability ($\bar{x}$ = 0.609, sd = 0.138); and Loan Concentration ($\bar{x}$ = 0.235, sd = 0.0907). The screening effort in banks was computed by using the total loans scaled by the number of transactions accounts held by the clients. This is because banks do screen their borrowers mainly through the accounts they maintain with them. Loan concentration, on the other hand, related to the extent to which the banks diversified or alternatively, focussed their lending operations. Finally, loan availability related to how quickly the banks converted their assets into loans. The study assumed that lower levels of credit risks are associated with higher loans value relative to total assets.

Regarding the composite index ICR-based Setting of credit terms and conditions ($\bar{x}$ = 1.043, sd = 0.149), the sub-measures such as Collateral coverage ($\bar{x}$ = 0.399, sd = 0.716) and Loan Pricing ($\bar{x}$ = 0.184, sd = 0.0523) indicated that on average collateral values were 39.9% of the loan values while interest rates were on average 18.4% over the 10 year period, respectively. Collateral was used to mitigate the credit risk by providing the bank the opportunity to take possession of the security pledged whose value could be used to reduce the outstanding debt obligations. Higher collateral coverage implies that the bank limits its exposure to the risk of default and hence could lend more to borrowers whose credit rating would not normally allow credit extension. Similarly, highly priced loans were likely to be those of lower quality with heightened likelihood of default.

ICR-based Credit monitoring ($\bar{x}$ = 0.075, sd = 0.0727) was also assessed using three sub-components including: Non-performing loan ($\bar{x}$ = 0.0402, sd = 0.0342); Loan Loss Reserve ($\bar{x}$ =

0.0182, sd = 0.0363); and Complete writes Offs ($\bar{x}$ = 0.0165, sd = 0.0297). The non-performing loans referred to the loans whose principal and/or interest amounts were no longer being serviced. It was considered an indicator of the underlying risk of the loans made. Loan loss provisions on the other hand related to the accumulated allowances made against outstanding loans considering that some of the loans would turn out to be bad. Complete write off also referred to the loan amounts, whole or in part, that were considered impaired to the extent that recovery was no longer considered possible. The three components were considered under loan monitoring as they consisted of adjustments to be made after loan advancement had been made by the bank.

ICR-based Capital allocation related to the extent to which the bank calibrated its capital in respect of its unexpected losses from credit risk, as measured through internal credit rating. Hence ICR-based Capital Allocation whose values ranged from 0.379 to 2.078 in turn had three constituent components measuring it ($\bar{x}$ = 1.272, sd = 0.237). These consisted of Tier 1 Capital ($\bar{x}$ = 0.213, sd = 0.117); Total capital ($\bar{x}$ = 0.231, sd = 0.117); and Debt ratio ($\bar{x}$ = 0.86, sd = 0.211). Tier 1 capital represented the most important capital that is core to lending operations and is primarily a determinant of ICR. Total capital related to the entirefirm's capital including intangible assets such as goodwill. The bank has to strike a balance between the amounts of capital it must hold to ensure stability while at the same time not lowering profitability due to excessive costs of capital. The study also analysed the banks' internal credit rating systems. Since the rating schemes varied from bank to bank, with rating classes also varying from 1-5 to 1-16, for analysis purposes the loan portfolios were categorised into three rating classes, that is, Class 1 consisted of loans that were neither past due nor impaired, Class 2 consisted of all loans that were past due, and Class three were all impaired loans. To arrive at the internal credit rating index, percentage of all impaired loans was multiplied by 1 then added to percentage of past due loans multiplied by 2, added to percentage of not due loans multiplied by 3. The resultant figure called ICR had values ranging from 0 to 2.987 with a mean of 2.7 ($\bar{x}$ = 2.7, sd = 0.538).

### 4.3 Correlation Analysis between variables

Correlation analyses were used to provide a preliminary exploration of the relationship among a group of variables, for each objective outlined in the study.

#### 4.3.1 Effects of ICR-based Loan Origination on RORAC

Table 4.2

*Correlation Analysis Results Between ICR-based Loan Origination and RORAC*

| | RORAC | ICR-based Loan origination | Screening effort | Loan availability | Loan concentration |
|---|---|---|---|---|---|
| RORAC | 1 | | | | |
| ICR-based Loan origination | 0.1828** | 1 | | | |
| | 0.0345 | | | | |
| Screening effort | 0.0578 | 0.18 | 1 | | |
| | 0.4931 | 0.034 | | | |
| Loan availability | 0.2096** | 0.6373 | 0.3549 | 1 | |
| | 0.012 | 0 | 0 | | |
| Loan concentration | -0.0796 | 0.4756 | -0.2483 | -0.0521 | 1 |
| | 0.359 | 0 | 0.0032 | 0.5428 | |

Note: (Significant level $\alpha$=0.05, P<0.05)

*,**,*** Significance level @ 10%,5% and 1% respectively.

As shown in the table, there was a significantpositive correlation between ICR-based loan origination and RORAC(r= 0.1828; p =0.0345). ICR-basedLoan origination in the study referred to the process leading to loan approval or declining to approve after assessment of the potential borrower. It had three sub-itemsincludingScreening effort and Loan Concentration both which showed no evidence ofaffecting RORAC since they were not statistically significant,(r = 0.0578; p = 0.4931) and (r=-0.0796; p=0.359), respectively.However, Loan availability was significantly

positively correlated with RORAC, implying that as the banks extended more low risk rated loans, more funds were made available for onward lending (r = 0.2096; p =0.012).

### 4.3.2 Effects of ICR-based Setting of Credit Terms and Conditions on RORAC

Table 4.3

*Correlation Analysis Results Between ICR-based Setting of Credit Terms and Conditions and RORAC*

| | RORAC | ICR-based setting of Credit terms & conditions | Collateral Coverage | Credit pricing |
|---|---|---|---|---|
| RORAC | 1 | | | |
| ICR-based setting of Credit terms & conditions | 0.2697*** | 1 | | |
| | 0.0016 | | | |
| Collateral Coverage | 0.2906*** | 0.9377 | 1 | |
| | 0.0007 | 0 | | |
| Credit pricing | -0.016 | 0.2885 | -0.0623 | 1 |
| | 0.85 | 0.0007 | 0.4715 | |

Note: (Significant level $\alpha$=0.05, P<0.05)

*, **, *** Significance level @ 10%,5% and 1% respectively.

ICR- based setting of Credit Terms and Conditions were also assessed on how they correlated with RORAC. It was found that ICR- based setting of credit terms and conditions, overall correlated positively with RORAC, indicating that terms and conditions instituted by the bank to ensure that borrowers repaid their credit obligations corresponded with increased RORAC (r=0.2697; p=-0.0016). The individual items showed thatCollateral coverage had a significant positive relationship with RORAC (r=0.2906; p=0.0007) whereas credit Pricing showed discernible relationship with RORAC (r=-0.016; p=0.85).

### 4.3.3 Effects of ICR-based Credit Monitoring on RORAC

Table 4.4

*Correlation Analysis Results Between ICR-based Credit Monitoring and RORAC*

| | RAROC | ICR-based Credit monitoring | Non-performing loans | Loan loss provision | Complete write offs |
|---|---|---|---|---|---|
| RAROC | 1 | | | | |
| ICR-based Credit monitoring | -0.1765** | 1 | | | |
| | 0.0445 | | | | |
| Non-performing loans | -0.1927** | 0.7117 | 1 | | |
| | 0.022 | 0 | | | |
| Loan loss provision | -0.0704 | 0.6679 | 0.0628 | 1 | |
| | 0.4054 | 0 | 0.4511 | | |
| Complete write offs | -0.0183 | 0.7589 | 0.4489 | 0.2566 | 1 |
| | 0.8355 | 0 | 0 | -0.0028 | |

Note: (Significant level $\alpha$=0.05, P<0.05

*, **, *** Significance level @ 10%,5% and 1% respectively.

ICR-based credit monitoringwas also assessed against its effect on RORAC. It was found that overall Loan monitoring had a significant negative relationship with RORAC (r=-0.1765; p=0.0445). The sub-components included Non-Performing Loans(r=-0.1927;p=0.022);Loan Loss Provision (r=-0.0704; p=0.4054); and Complete Write Offs (r=-.0183;p=0.8355). Out of the three sub-components, only non-performing loans correlated significantly with RORAC, indicating that higher non-performing loans were associated with lower RORAC.

### 4.3.4 Effects of ICR-based Capital Allocation on RORAC

Table 4.5

*Correlation Analysis Results Between ICR-based Capital Allocation and RORAC*

| | RORAC | ICR-based Capital allocation | Tier1 capital | Total capital | Debt ratio |
|---|---|---|---|---|---|
| RORAC | 1 | | | | |
| ICR-based Capital Allocation | -0.061 | 1 | | | |
| | 0.4679 | | | | |
| Tier1 capital | -0.1742** | 0.4964 | 1 | | |
| | 0.0368 | 0 | | | |
| Total capital | -0.1927** | 0.5314 | 0.9848 | 1 | |
| | 0.0206 | 0 | 0 | | |
| Debt ratio | 0.16 | 0.6833 | -0.291 | -0.2515 | 1 |
| | 0.0553 | 0 | 0.0002 | 0.0014 | |

Note: (Significant level $\alpha$=0.05, P<0.05

*, **, *** Significance level @ 10%,5% and 1% respectively.

Internal credit rating is central to bank capital allocation and hence, the study sought to find out the correlation relationship between RORAC. Generally, there wasa negative relationship but not significant effect of Capital allocationon RORAC (r=-0.061;p=0.4679). There were however, significant negative correlation between Tier 1 capital and RORAC (r=-0.1742;p=0.0368); a similar result was also found in relation to the effect of Total Capital to RORAC (r=-0.1927;p=0.0206). There was no significanteffect of Debt on RORAC (r=0.16;p= 0.0553). Thus the results showed that increasing capital of the bank was associated with lower financial performance as measured by RORAC, most likely due to increased cost of capital relative to earnings generated from the additional investments. Due to varied debt ratios in the banking

sector, coupled with attendant signalling effects of debt and bankruptcy costs, the effects of debt on RORAC were not clear cut, in spite of leverage effects.

### 4.4 Panel Data Regressions

Table 4.6

*Panel Data Regression Results on Effects of ICR on RORAC*

| Variables | (1)<br>OLS | (2)<br>FE | (3)<br>RE |
|---|---|---|---|
| Loan origination | 0.172*** | -0.0454 | -0.0217 |
| | (0.0634) | (0.0648) | (0.0619) |
| ICR-based setting of credit terms and conditions | 0.368*** | 0.154* | 0.177** |
| | (0.0858) | (0.0863) | (0.0849) |
| ICR-based Credit monitoring | -0.157 | 0.136 | 0.0818 |
| | (0.153) | (0.122) | (0.121) |
| ICR-based Capital allocation | -0.104* | -0.105* | -0.0720 |
| | (0.0586) | (0.0577) | (0.0500) |
| Constant | -0.250* | 0.191 | 0.172 |
| | (0.149) | (0.134) | (0.133) |
| Observations | 119 | 119 | 119 |
| R-squared | 0.206 | 0.732 | 0.382 |
| F value | 7.386 | 11.92 | 14.11 |
| Degrees of freedom | 114 | 96 | 114 |
| Prob> F | 2.51e-05 | 0 | 9.85e-11 |
| Adjusted R2 | 0.178 | 0.671 | 0.355 |
| Fixed group effect | | 10.48*** | |
| LM test | | | 86.34*** |
| Hausman test | | 8.51 | |

Note: (Significant level α=0.05, P<0.05)

(Standard error in parentheses***p<0.01, **p<0.05 and *p<0. 1)

Three models were comparatively used to further test the relationship between the independent variables and the dependent variable. According to OLS model,17.8%, of total variation in RORAC was accounted for. The model was significant implying that at least one of the explanatory variables related significantly with RORAC ($F=114$, $p < 0.05$).ICR-based loan origination was positively related with RORAC ($\beta=0.172$***, SE = 0.0634); ICR-based setting of credit terms and conditions also showed significant positive relationship with RORAC ($\beta$ = 0.368***; SE = 0.0858). However, ICR-based Credit Monitoring ($\beta$ = -0.157; SE=0.153) and ICR-based Capital Allocation ($\beta$ = -0.104*; SE = 0.0586) were negatively related with RORAC.

Consequently, fixed effects model which explained 67.1%, of total variation in RORAC was then used to further assess the nature of relationship between independent variables and the dependent variable ($F= 96$, $p < 0.05$).ICR-based loan origination was negatively related with RORAC ($\beta$ = -0.0454; SE = 0.0648); ICR-based setting of credit terms and conditions was positively related with RORAC ($\beta$ = 0.154*; SE = 0.0863); ICR-based loan monitoring showed positive relationship with RORAC ($\beta$ = 0.136; SE = 0.122) while ICR-based capital allocation resulted in negative relationship with RORAC ($\beta$ =-0.105*; SE = 0.0577). None of the relationships with RORAC under the fixed effects model were significant implying that the firm specific differences were responsible for the differences in the performance of commercial banksin Kenya and therefore not the variables assessed in the model.

Additionally, the random effects model was used to assess the relationship between explanatory variables and RORAC. The model explained 35.5% of total variation in RORAC, where the model was significant ($F=114$, $p < 0.05$).ICR-based loan origination was negatively related with RORAC ($\beta$ = -0.0217; SE = 0.0619) while ICR-based setting of credit terms and conditions was significantly positively related with RORAC ($\beta$ = 0.177**; SE = 0.0849) indicating that as the bank tightened its lending terms and conditions, its RORAC was also likely to go up. ICR-based credit monitoring related positively with RORAC ($\beta$ = 0.0818; SE = 0.121) whereas ICR-based capital allocation related negatively with ($\beta$ = -0.0720; SES = 0.0500).

### 4.5 Hausman Test

Hausman test was used to test the better model between fixed effects model and the random effects model.The null hypothesis is that the preferred model is the random effect against Fixed effect model. According to Kapoor, Kelejian&Prucha(2007), OLS assumes homoscedasticity; that is the error terms have some variables in each observation; errors are uncorrelated between variables and also assume that errors are normally distributed. This makes it not suitable to apply in this study confirmed after conducting a fixed group effect test which showed that FE was significant at 10.48***this makes FE model superiority over OLS model.The researcher also carried out an LM test to test the most relevant model to use between the OLS and RE. The results was that RE model was significant at 86.34*** therefore being more superior to OLS.Finally the researcher carried out Hausman test between FE and RE as shown in table 4.7

Table 4.7

*Hausman Test Results*

| | Coefficients | | | |
|---|---|---|---|---|
| | Fixed Effects | Random Effects | Difference | S.E. |
| ICR-based loan Origination | -.0453878 | -.0051613 | -.0402265 | .0233132 |
| ICR-based setting of credit terms and conditions | .1541205 | .1876446 | -.033524 | .0347452 |
| ICR-based credit monitoring | .1356718 | .0858397 | .0498321 | .0261265 |
| ICR-based capital allocation | -.1051998 | -.1049905 | -.0002093 | .0173878 |

b = consistent under Ho and Ha; obtained from xtreg

B = inconsistent under Ha, efficient under Ho; obtained from xtreg

Test: Ho: difference in coefficients not systematic

chi2 (4) = (b-B)'[(V b-V_B) ^ (-1)] (b-B) = 8.51, Prob>chi2 = 0.0746

The test showed that the random effects model offered better assessment of the relationship between the explanatory variables and the RORAC since it was not significant [chi2(4) = (b-B)'[(V_b-V_B)^(-1)](b-B) = 8.51, Prob>chi2 = 0.0746].

### 4.6 Discussions

According to Shanker, Singh and Wadud(2009), banks provide one of the basic institutional functions for national growth and as such play a critical role in a country's economic development. This is mainly done through acceptance of deposits and providing loans to various categories of borrowers (Beltratti & Stulz, 2012). In the course of lending, banks have been utilizing internal credit rating for various purposes including being the basis for loan approval, pricing, monitoring, and loan loss provisioning since the 1990s (Grunert*et al.*, 2005). However, broad scale use of ICR was ushered in by the Basel II of 2004. In the intervening period Kenyan banks have used the system to manage their loan portfolios, yet not so many studies have been carried out in the area. This background informed the present study.

Hence the present study soughed to find out the effects of internal credit rating on financial performance of commercial banks in Kenya. Specifically, the study sought to analyze ICR as a basic for loan origination, setting of terms and conditions regarding the loan, loan monitoring as well as capital allocation based on the risk profile of the loan portfolio. According to Fabac, Calopa, Hrustek and Kocijan(2015), efficient bank credit risk management has many benefits including prevention of bank crisis, raising bank financial performance, protecting the reputation of the bank and increasing firm value. Mainly, the study attempted to link the benefit of superior financial performance with the various purposes of ICR.

ICR-based loan origination process was thus assessed against the financial performance measured using RORAC. It was found that when banks increased in their portfolio of loans credit facilities that were rated less risky, there was also simultaneous rise in RORAC. This finding had been attested to by Jang and Sheridan (2012) who pointed out that potentially risky loans associated with high risk rated loans can lead to loan losses, but can be mitigated by a

conservative approach by implementing the Basel II framework for ICR. Since ICR-based loan origination is associated with determining the amount of effort to be expended in screening potential borrowers, credit limits, and loan concentration, the study examined the relationship between RORAC and variables Screening effort, Loan availability, and Loan concentration simultaneously under loan origination. The findings revealed that, besides ICR rating being affected by RORAC, Loan availability was also related with ICR. This implies that banks which were able to lend a larger percentage of low risk loans were also likely to perform better on risk adjusted financial performance measures. Additionally, banks that were able to have a larger proportion of the assets in form of loans were also likely to perform better on RORAC. This findings contrasts those arrived at by Foos*et al.* (2009) who argue that the growth in loans, especially subprime mortgage lending, fueled by low interest rates, booming housing markets, credit securitization, and lax credit standards, led to unprecedented credit losses and serious consequences for the global economy. However, panel data regressions did not give significant results for the variables included among the explanatory variables. This may be attributed to firm specific differences and omitted variables that confounded the nature of the relationship.

In regard to ICR based setting of terms and conditions for lending, the study found a significant negative relationship between collateral coverage and RORAC. According to Heffernan(2005), banks use collateral to reduce credit risk exposure. However, if the price of the collateral becomes more volatile, then for an unchanged loan rate, banks have to demand more collateral to offset the increased probability of loss on the credit. Hence, it was concluded that the negative relationship could be attributed to the fact that the in most cases, banks that have proportion of secured loans using collateral use it as a substitute for ICR, but since not all of the their loans are secured, they tend to incur higher lending costs. According to Foos*et al*. (2009) banks sometimes grant new loans that abnormally expand their credit portfolio and are priced at a lower rate than loans granted by banks that intend to maintain their current credit exposure.

Loan concentration was not found to be significant even though Treacy acknowledged fact that credit-related businesses have become progressively more diverse and complex and the number of their counterparties has grown rapidly, straining the limits of traditional methods of controlling and managing credit risk (Treacy & Carey, 2000). Therefore given the potential for

adverse selection, most banks do not rely solely on loan rates when taking a lending decision (Heffernan, 2005).

ICR-based loan monitoring was also assessed and the results showed that NPL and loan write offs were significantly negatively related with RORAC, as expected. This is because highly risky loans lead to defaults in loans that eventually culminate into write offs. According to Heffernan (2005), additional volatility created from an increase in the number of risky loans can be offset either by new injections of capital into the bank or by diversification. Moreover, instead, the availability of a certain type of loan may be restricted to a selected class of borrowers, especially in retail markets. Branch managers are given well-defined credit constraints, and borrowers usually discover they may not borrow above some ceiling. Again, Matthews (2010) adds that the training and practice of risk managers remain poor compared in most developing nations leading to large non-performing loan (NPL) ratios.

If banks fund loan growth mainly with new debt, the capital structure becomes more risky. According to Foos*et al*, (2009) past abnormal loan growth is significantly positively related to loan losses and significantly negatively associated with bank profitability and solvency. This leads to an increase in loan loss provisions during the subsequent years due to a decrease in relative interest income, and to lower capital ratios resulting from the experience that borrowers do not immediately default after they have received a bank loan hence an increase of loan loss provisions come after a time lag of several years. Income smoothing has also been attributed to high levels of NPL and CWOs (Majnoni, Miller, & Powell, 2004).

In respect of ICR based capital allocation, the study found that both tier 1 and total capital related negatively with RORAC. Beltratti and Stulz(2012) also found that insufficient capital, excessive reliance on short-term financing, and poor governance all contributed to making the crisis as serious as it was. Demirguc-Kunt, Detragiache and Merrouche (2010) too observe that when capital is low relative to the regulatory minimum banks choose a very risky loan portfolio to maximize the option value of deposit insurance. Capital requirements for banks must balance a number of factors, including any effects on the cost of capital and in turn the rates available to borrowers (Baker & Wurgler, 2013). In competitive lending markets, a change of in capital

would spreads since it causes the cost of capital to rise. Having more capital therefore helps banks to better absorb adverse shocks and thus reduces the probability of financial distress (Nguyen, 2014). Carlson *et al.* (2013) also found enough evidence in favor of capital ratios impacting loan availability.

### 4.6.1 Hypothesis Tests

**$H_{01:}$ There is no significant effect between ICR-based loan origination process and the financial performance of commercial banks in Kenya.**

According to the analysis, ICR-based Loan origination had a positive relationship with RORAC. This was provided by correlation analysis but was not confirmed by regression analysis since the RE model that fitted the best did not post a significant relationship between the two variables. This may be attributed to the aggregation of the component variables that neutralized the various component effects in the regression equation. Consequently, the correlation results were deemed more instructive in that they were carried out on the disaggregated data. The results therefore confirmed that internal credit rating systems as used in new credit application incorporates personal information and the financial status of a loan applicant as inputs to calculate a score which guide loan approval (Zhao, Xu, Kang, Kabir, & Liu, 2015). The general trend was that the ICR-base Loan origination was closely linked to high probability of exhibiting good credit behavior hence positive correlation with RORAC (Wang & Cox, 2013). Nonetheless, the regression analysis under RE model did not give a significant relationship but instead showed a negative relationship. Therefore since the two tests could not agree, this study concluded that the null hypothesis could not be rejected. That is ICR–based loan origination did not have any significant effect on the financial performance of commercial banks in Kenya. This could have been attributed by the information asymmetry during the process of analyzing the information at the initial stagesi.e screening effort stage.

**$H_{02:}$ There is no significant effect between ICR-based setting of credit terms and conditions and the financial performance of commercial banks in Kenya.**

Under the correlation analysis, ICR-base setting of credit terms and conditions as well as loan collateral coverage was significantly positively correlated with RORAC. The RE regression analysis which fitted the data showed that there was a significant relationship between the two

variables ICR-base setting of credit terms and conditions and RORAC. As Barriga*et al,*(2015) points out, granting of credit is important in the profitability of companies in the financial sector and one of the main sources of revenue for lenders, such banks and financial institutions in general. Moreover, according to Atta *et al.* (2015), banks experience adverse selection and moral hazard problem that arise due to asymmetry of information which they can use loan security mechanism in order to mitigate the losses that arise due to asymmetric information. Debt covenants help reduce agency cost and increase firm value through monitoring and creditor control (Liu, 2015). The study therefore held that there was enough ground to reject the null hypothesis of the study objective two, upholding that there was a relationship between ICR-based setting of credit terms and conditions and RORAC. Additionally, the study did not lend support to the view that costly contracting entailed in ICR-based setting of credit terms and conditions of the covenants hurt firms that will lose most from inefficient restrictions.

**$H_{03:}$ There is no significant effect between ICR-based credit monitoring and the performance of commercial banks in Kenya.**

Regarding the third Hypothesis ($H_{03)}$, the study found that there were significant negative correlations with the measures of ICR-based credit monitoring, Non-performing loans and Loan loss provision but not with complete write offs.The RE model regression was not significant leading to the conclusion that the relationship between bank ICR-based credit monitoring and RORAC was not evidenced in the model.

ICR-based credit monitoring focuses on the credit record of existing customers by continually assessing the payment history of a customer with the view of enabling a financial institution to predict a customer's payment ability and alter his/her credit level (Zhao, Xu, Kang, Kabir, & Liu, 2015). The core function of a bank is to monitor borrowers in order to reduce information asymmetry in lending, and to provide payment services to depositors and borrowers (Atta *et al.,* 2015). From the analysis therefore, the hypothesis that there was no significant effect between ICR-based credit monitoring and RORAC was not supported, hence accept the hypothesis.

**$H_{04:}$ There is no significant effect between ICR-based capital allocation and the financial performance of commercial banks in Kenya.**

The individual components were significantly negatively correlated with RORAC except Debt ratio. Consequently, Tier 1 capital which included shareholders' equity and retained earnings and tier 2 which related to all the additional internal and external resources available to the bank showed that they were negatively correlated with RORAC (Wang & Cox, 2013). Under the Basel-II approach, the amount of capital a bank is required to hold in order to cover potential future losses, is no longer a fixed percentage as in the first accord but determined by a more refined system (Henneke & Trück, 2005). Notwithstanding the fact that higher capitalization increases the cost of capital and hence are associated with lower profits, the results on tier 1 and total capital ratios also indicated that the higher this ratios the greater financial strength and ability to weather the storm in dire times, as was argued by (Wang & Cox, 2013). Therefore there is a need for the bank to strike a balance between profitability and stability. The results did not provide insights on to how these conflicting aims could be achieved hence the need for panel data regression for further clarification. The panel data regression under the RE model indicated that the results were just marginally not significant. A further query of the individual components revealed that due to industry convention which relies on debt funding using deposits, the results provided a distorted view due to relative weight of the deposits. Additionally, since the results under the RE maintained the same signs as the signs under the correlation analysis, the Hypothesis was validly rejected leading to the conclusion that ICR-based capital allocation affects financial performance of the banks operating in Kenya.

# CHAPTER FIVE
# SUMMARY OF FINDIGS, CONCLUSSIONS AND RECOMMENDATIONS

## 5.1 Introduction

This chapter gives the summary of the study, expounding on the findings, drawing conclusions from those findings and providing recommendations as appropriate. It also highlights an area related to the current study that may require furtherconsideration.

## 5.2 Summary of the Findings

This study was mainly driven by the information that banks play a very key role in the national economic development. Their credit creation ability is what is needed to spur growth in various sectors of the economy. Thus using refined internal credit rating models, they can perform this role in a manner that allows them to impact the society while at the same time making financial gains of their own. Consequently, the study soughed to explain the effects of ICR on financial performance of commercial banks in Kenya. The internal credit rating indexes were computed for each bank, each year and the result used to weight the firm returns. The returns were further adjusted for volatility using 10 year standard deviations before being scaled by respective bank capital. This was considered appropriate measure for infusing ICR along the entire loan path.

### 5.2.1 Effects of ICR-Based Loan origination on RAROC

The first use of ICR that was assessed was on Loan origination where customers are screened and assessed for possible lending. In order to make the lending decision, the banker would have to score the customer on various metrics, determine the loan limits or loan availability based on such assessment as well as determine where the related credit risks would have to be diversified away or if the bank has the in-depth knowledge about a particular setting that can allow it to focus its lending operations in such a setting. This determines the degree of loan concentration by the bank, hence credit risk. The study found that internal credit rating of loans was a significantly associated with financial performance measures of the bank, in this case RORAC. This implied that as the banks increased their lending to mainly low risk borrowers, according to their internal ratings, the RORAC of the bank also improves.

Related to loan origination were the specific components screening effort, Loan availability and Loan concentration. The only component that significantly related with RORAC was Loan availability. According to DeYoung, Gron, Torna and Winton(2014), stress in the financial sector can cause banks to reduce the amount of new credit they supplied to borrowers. The finding therefore supported the view that ICR may be associated with less stress in the banking sector by improving predictability of loan repayment, hence leading to less instances of loan rationing or credit crunch. A panel regression showed that there was no statistically significant relationship between loan origination and RORAC. The contrasting results indicated the influence of bank's inability to mobilize sufficient amounts of saving to satisfy the demand for credit which is associated with financial under-development (Andrianova *et al.*, 2015).

### 5.2.2 Effects of ICR-Based Setting of Credit Terms on RAROC

In regard to ICR-based setting of credit terms and conditions, there was a highly significant correlation with RORAC. These findings were also confirmed by the panel data regression analysis. Collateral, as Liberti and Sturgess (2014) point out, is one of the most common characteristics of loan contracts and can be used both as an ex-ante commitment mechanism against agency risk or for hedging against expected default risk. Thus, ICR-based setting of credit terms and conditions were found to significantly encourage shifting of risks to borrowers as a mechanism for encouraging them to make greater loan repayment effort. The results therefore indicated that collateralization plays a more significant role among elements of a loan contract that were always being considered in negotiations, such as the price and the volume of the loan (Menkhoff, Neuberger, & Suwanaporn, 2006). Hence, as a large part of the loan volume gets secured usually by physical assets, the more the bank reduces its lending risk.

### 5.2.3 Effects of ICR-Based Credit Monitoring on RAROC

ICR-based credit monitoring correlated significantly with RORAC, even though additional analysis using panel data regression did not provide confirmation to the existence of such a relationship. The lack of supported relationship between ICR credit monitoring and RORAC thus wasassumed to imply the inadequacy of ICR to help monitor and identify bank's lending risks position in real time. Since much of the default risk arises from moral hazard and information

problems, banks must monitor their borrowers to increase their return from the loan portfolio (Heffernan, 2005).

### 5.2.4 Effects of ICR-Based Capital Allocation on RAROC

As per ICR-based capital allocation, both tier 1 and total capital ratios were significantly negatively correlated with RORAC. Leverage was on the other hand marginally not significantly correlated with RORAC, though with a positive coefficient sign. Overall, Capital allocation was negatively but not correlated with RORAC. Similarly, panel data regression showed that capital allocation was not significantly related with RORAC, but the p-value was just marginal. Hence the study held that high amounts of capital were related with lower firm financial performance. However, leverage which is often associated with increases in risks and rewards were not significant in the study. This findingsshowed that unlike during crisis when higher capitalization is associated with better financial performance, normal times would likely have tier 1 and total capital ratios with negative significant coefficient (Beltratti & Stulz, 2012). The study also found that most of the banks in the study have tier 1 capital ratio higher than 8% recommended by Nguyen(2014) who pointed out that having more capital helps banks better absorb adverse shocks and thus reduces the probability of financial distress.

## 5.3 Conclusions

Commercial Banks generate huge income from their lending activities, but some proportion of their loaned amounts regularly become bad loans. This was reflected in the Commercial banks annual reports for the year ended December 2014, where bad loans stood at kshs. 108.3 billion. internal credit rating was intended to help banks reduce inefficiencies in lending operations since customers whose credit standing indicate having problems with creditworthiness was subjected to stringent terms and conditions in order to accurately predict borrowers' chances of default, determine loan contract terms, monitor loans and capital allocations decisions that are more profitable. Kenyan banks have attempted to implement Basel II recommendations to a varying degree of success. Despite all these expectations and implementations, banking system in Kenya has showed increasing trend of bad loans in relation to total loans in the recent years as follows, 2011 (4.4%), 2012 (4.7%), 2013 (5.2%) and 2014 (5.6%). Therefore this study was intended to

investigate the effect of ICR in relation to banks financial performance in Kenya considering the loan path.

The study concluded that ICR-based setting of Credit Terms and conditions (r = 0.2697***; p = -0.0016); (β = 0.177**; SE = 0.0849) as well as ICR-based Capital allocation (r = -0.061; p = 0.4679); (β = -0.0720; SE = 0.0500)affected the financial performance of commercial banks in Kenya, this was measured by use of RORAC. It was also observed that loans covered by collateral were more likely to be repaid than those that were not leading to better performance for banks that had higher collateral coverage values. ICR-based capital allocation, increases in tier 1 and total capital ratios were associated with decreases in financial performance of the banks in the study. There was however, no significant relationship between leverage and financial performance. On the other hand, ICR-based loan origination(r= 0.1828**; p = 0.0345);(β = -0.0217; SE = 0.0619) and ICR-based credit monitoring(r = -0.1765**; p = 0.0445); (β = 0.0818; SE = 0.121) did not have any effect on the financial performance of commercial banks in Kenya.

### 5.4 Recommendations

The study examined the effects of ICR on financial performance of commercial banks operating in Kenya. The effects were inevitably through reduction of adverse selection and moral hazard problem that arise due to asymmetry of information is often observed in banking sector. From the study results, the following recommendations can be made: Banks need to find mechanisms of updating their ICR to enable real time identification, assessment and monitoring of lending risks, not only at the time of origination, but also during the duration of the loans; banks to intensify use of lending covenants and collateral to increase the efforts of the borrowers towards loan repayments as this will also narrow the information gap between the parties; and finally; to expand their use of credit sharing capabilities with a view of enriching their internally generated data to more accurately reflect public and private as well as hard and soft information so as to improve their credit risk profiles.

## 5.5 Suggested Area for Further Research

First, researchers can research on the effects of internal credit rating on the financial Performance commercial of commercial banks, factoring in all the commercial banks licensed and registered during the time of the study.

Secondly, due to increased automation in the banking sector, the study suggestsan area for further research; the study suggests research on automated ICR risk analysis for remote lending transactions among commercial banks in Kenya. This will provide useful insights, especially in relation remotely executed transactions such as mobile, internet and agency lending which have shown an upward trend recently in the Kenyan banking prospect.

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# APPENDICES

## APPENDIX I

### Letter of Introduction

NICKSON K. KIPTIONY
PO BOX 10-20157
NAKURU.

Dear Sir/Madam

RE: **REQUEST TO ACCESS DATA.**

I' am a post graduate student in the Faculty of commerce, Kabarak University pursuing Master of Business Administration. In order to fulfil the degree requirements, I am currently undertaking a research project study on the **"Effects Of Internal Credit Rating On Financial Performance Of Commercial Banks In Kenya".** I am kindly requesting that you permit me access your company's annual audited reports from 2006 to 2015.

Yours Faithfully,

NicksonKiptisiaKiptiony.

## APPENDIX II

### Data Capture Sheet

| | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
|---|---|---|---|---|---|---|---|---|---|---|
| **Income statement** | | | | | | | | | | |
| Interest income | | | | | | | | | | |
| Interest expense | | | | | | | | | | |
| Non-performing loans | | | | | | | | | | |
| Loan loss reserves | | | | | | | | | | |
| Loans completely written of | | | | | | | | | | |
| **Balance sheet** | | | | | | | | | | |
| Total loans | | | | | | | | | | |
| Residential Real Estate loans | | | | | | | | | | |
| Consumer loans | | | | | | | | | | |
| Commercial and Industrial loans | | | | | | | | | | |
| Commercial Real Estate loans | | | | | | | | | | |
| Collateral value | | | | | | | | | | |
| Guarantees and letter of credit | | | | | | | | | | |
| Tier 1 capital | | | | | | | | | | |
| Tier 2 capital | | | | | | | | | | |
| Total capital | | | | | | | | | | |
| Risk weighted assets | | | | | | | | | | |

## APPENDIX III

### Operationalization of Variables

| | |
|---|---|
| **ICR based Loan origination.** | |
| Screening effort | Total loans/Number of transaction accounts |
| Loan availability | Loans-to-assets ratio (Total loans/Total assets). |
| Loan concentration | Herfindahl-Hirschman Index |
| **ICR based setting of credit Terms and conditions.** | |
| Collateral coverage | [Log(collateral value$_t$/Collateral value$_{t-1}$)] |
| Loan pricing | Interest income/Total loans |
| **ICR based credit monitoring** | |
| Non-performing loans to total loans | NPL/TL |
| Loan loss reserve | Loan loss provisions/Total loans |
| Complete write offs | write offs/Total loans |
| **ICR-based capital allocation** | |
| Tier 1 capital | Tier 1 capital/Risk-weighted assets |
| Total capital | (Tier 1 + Tier 2)/Risk weighted assets |
| Debt to RWA | Total debt/Total assets |
| **Financial performance** | |
| RORAC | Return ÷ Total Capital Adjusted for Risk |
| Where: | Return = (interest income – interest expense - % of overheads) |
| | Risk adjusted capital = (total capital/std. dev of returns) |
| | % of overhead = interest revenue / total revenue x overheads |

## APPENDIX IV

### List of Commercial Banks in Kenya

1. African Banking Corporation Ltd
2. Bank of Africa (K) Ltd
3. Bank of Baroda
4. Bank of India
5. Barclays Bank of Kenya Ltd
6. CfCStanbic Bank (K) Ltd
7. Chase Bank Ltd
8. Citibank N.A. Kenya
9. Co - operative Bank of Kenya Ltd
10. Commercial Bank of Africa Ltd
11. Consolidated Bank of Kenya Ltd
12. Credit Bank Ltd
13. Development Bank of Kenya Ltd
14. Diamond Trust Bank (K) Ltd
15. Dubai Bank Ltd
16. Ecobank Kenya Ltd
17. Equatorial Commercial Bank Ltd (Currently Spire Bank)
18. Equity Bank Ltd
19. Family Bank Ltd.
20. Fidelity Commercial Bank Ltd
21. First Community Bank Ltd
22. Giro Commercial Bank Ltd
23. Guaranty Trust Bank Ltd
24. Guardian Bank Ltd
25. Gulf African Bank Ltd
26. Habib Bank A.G. Zurich
27. Habib Bank Ltd
28. Housing Finance Co. of Kenya Ltd

29. I&M Bank Ltd
30. Imperial Bank Ltd
31. Jamii Bora Bank Ltd
32. K - Rep Bank Ltd (Currently Sidian Bank)
33. Kenya Commercial Bank Ltd
34. Middle East Bank (K) Ltd
35. National Bank of Kenya Ltd
36. NIC Bank Ltd
37. Oriental Commercial Bank Ltd
38. Paramount Universal Bank Ltd
39. Prime Bank Ltd
40. Standard Chartered Bank (K) Ltd
41. Trans - National Bank Ltd
42. UBA Kenya Ltd
43. Victoria Commercial Bank Ltd

**Source**: CBK, 2015.

## APPENDIX V

### Commercial Banks Market Share

| | Bank | Assets (Million K shs.) Weighting:0.33 | Market share |
|---|---|---|---|
| **Large Peer Group>5%** | Kenya Commercial Bank Ltd | 304,112 | 13.10% |
| | Equity Bank Ltd | 215,829 | 9.30% |
| | Cooperative Bank Ltd | 199,663 | 8.60% |
| | Standard Chartered Bank (K) Ltd | 195,493 | 8.40% |
| | Barclays Bank of Kenya Ltd | 185,102 | 7.90% |
| | **Sub-total** | **1,100,199** | **47.30%** |
| **Medium Peer Group> 1% &< 5%** | NIC Bank Ltd | 101,772 | 4.40% |
| | Diamond Trust Bank Ltd | 94,512 | 4.10% |
| | Commercial Bank of Africa (Ltd) | 100,456 | 4.30% |
| | I&M Bank Ltd | 91,520 | 3.90% |
| | National Bank of Kenya Ltd | 67,155 | 2.90% |
| | Baroda Bank Ltd | 46,138 | 2.00% |
| | Bank of Africa Ltd | 48,958 | 2.10% |
| | Imperial Bank Ltd | 34,590 | 1.50% |
| | Family Bank Ltd | 30,985 | 1.30% |
| | **Sub-Total** | **616,086** | **26.50%** |
| | African Banking Corporation Ltd | 19,071 | 0.80% |
| **Small Peer Group<1%** | Consolidated Bank of Kenya Ltd | 18,001 | 0.80% |
| | Giro Commercial Bank Ltd | 12,280 | 0.50% |
| | Trans-National Bank Ltd | 8,801 | 0.40% |
| | Paramount Universal Bank Ltd | 7,255 | 0.30% |
| | Oriental Commercial Bank Ltd | 6,220 | 0.30% |
| | **Sub-Total** | **71,628** | **3.10%** |
| | **Grand-Total** | **1,787,913** | **77%** |

**Source:**CBK 2012

## APPENDIX VI

## Commercial Banks Data

Table 4.8

*ICR-based Loan Origination Variables and RORAC*

| Year | I.D | Bank | RORAC | Loan Originatio nratio | Screenin g effortrati o | Loan Availabil ity ratio | Loan concentr ation ratio |
|---|---|---|---|---|---|---|---|
| 2006 | 1 | Barclays Bank Of Kenya Ltd | 0.38966 | 1.3451483 | 0.226304 | 0.666078 | 0.2456 |
| 2007 | 1 | Barclays Bank Of Kenya Ltd | 0.273857 | 1.4187033 | 0.253587 | 0.689286 | 0.2914 |
| 2008 | 1 | Barclays Bank Of Kenya Ltd | 0.223914 | 1.3642262 | 0.173105 | 0.649022 | 0.2906 |
| 2009 | 1 | Barclays Bank Of Kenya Ltd | 0.235102 | 1.3351746 | 0.125717 | 0.570468 | 0.348 |
| 2010 | 1 | Barclays Bank Of Kenya Ltd | 0.246532 | 1.2856413 | 0.102474 | 0.512409 | 0.3604 |
| 2011 | 1 | Barclays Bank Of Kenya Ltd | 0.273008 | 1.4005343 | 0.100358 | 0.613355 | 0.3747 |
| 2012 | 1 | Barclays Bank Of Kenya Ltd | 0.304467 | 1.4010946 | 0.045987 | 0.578777 | 0.4189 |
| 2013 | 1 | Barclays Bank Of Kenya Ltd | 0.284237 | 1.6930242 | 0.052524 | 0.587717 | 0.7008 |
| 2014 | 1 | Barclays Bank Of Kenya Ltd | 0.278772 | 1.3832604 | 0.093891 | 0.571159 | 0.4007 |
| 2015 | 1 | Barclays Bank Of Kenya Ltd | 0.256548 | 1.40601 | 0.099728 | 0.622035 | 0.3716 |
| 2006 | 2 | Cooperative Bank of Kenya Ltd | 0.247473 | 1.490181 | 0.091851 | 0.774719 | 0.3044 |
| 2007 | 2 | Cooperative Bank of Kenya Ltd | 0.303483 | 1.4706452 | 0.081666 | 0.695181 | 0.3661 |
| 2008 | 2 | Cooperative Bank of Kenya Ltd | 0.163592 | 1.6123378 | 0.086966 | 0.72369 | 0.4784 |
| 2009 | 2 | Cooperative Bank of Kenya Ltd | 0.166473 | 1.4813149 | 0.068612 | 0.601926 | 0.4722 |
| 2010 | 2 | Cooperative Bank of Kenya Ltd | 0.218199 | 1.3153765 | 0.062633 | 0.589384 | 0.3198 |
| 2011 | 2 | Cooperative Bank of Kenya Ltd | -0.43344 | 1.365231 | 0.060984 | 0.677914 | 0.2814 |
| 2012 | 2 | Cooperative Bank of Kenya Ltd | 0.155424 | 1.2736301 | 0.053231 | 0.617305 | 0.2517 |
| 2013 | 2 | Cooperative Bank of Kenya Ltd | -0.17269 | 1.2592074 | 0.061215 | 0.612452 | 0.2408 |
| 2014 | 2 | Cooperative Bank of Kenya Ltd | 0.115539 | 1.2668726 | 0.071426 | 0.644515 | 0.2147 |
| 2015 | 2 | Cooperative Bank of Kenya Ltd | 0.128326 | 1.2449859 | 0.075722 | 0.629912 | 0.2067 |
| 2006 | 3 | African Banking Corporation Ltd | 0 | 0 | 0 | 0 | 0 |
| 2007 | 3 | African Banking Corporation Ltd | 0 | 0 | 0 | 0 | 0 |
| 2008 | 3 | African Banking Corporation Ltd | 0 | 0 | 0 | 0 | 0 |
| 2009 | 3 | African Banking Corporation Ltd | 0 | 0 | 0 | 0 | 0 |
| 2010 | 3 | African Banking Corporation Ltd | 0.228417 | 1.433815 | 0.576103 | 0.779644 | 0.1624 |
| 2011 | 3 | African Banking Corporation Ltd | 0.174047 | 0 | 0 | 0 | 0.1916 |
| 2012 | 3 | African Banking Corporation Ltd | 0.148238 | 1.2560707 | 0.549209 | 0.531383 | 0.2374 |
| 2013 | 3 | African Banking Corporation Ltd | 0.199374 | 1.2867211 | 0.485139 | 0.585111 | 0.225 |
| 2014 | 3 | African Banking Corporation Ltd | 0.078982 | 1.3230956 | 0.437117 | 0.638089 | 0.2164 |
| 2015 | 3 | African Banking Corporation Ltd | 0.077612 | 1.3529236 | 0.465043 | 0.693263 | 0.1864 |
| 2006 | 4 | Bank of Africa Ltd | -0.03884 | 0.9616762 | 1.476135 | 0.4431 | 0.2638 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2007 | 4 | Bank of Africa Ltd | 0.047069 | 0.9996259 | 1.27905 | 0.565798 | 0.2119 |
| 2008 | 4 | Bank of Africa Ltd | 0.028061 | 1.2962528 | 1.812146 | 0.798175 | 0.1873 |
| 2009 | 4 | Bank of Africa Ltd | 0.034108 | 1.2348102 | 1.57418 | 0.808694 | 0.155 |
| 2010 | 4 | Bank of Africa Ltd | 0.084725 | 1.0928723 | 1.042317 | 0.732499 | 0.1779 |
| 2011 | 4 | Bank of Africa Ltd | 0.079577 | 1.1539445 | 1.150455 | 0.774049 | 0.1794 |
| 2012 | 4 | Bank of Africa Ltd | 0.072929 | 1.3144196 | 0.812893 | 0.612484 | 0.1707 |
| 2013 | 4 | Bank of Africa Ltd | 0.070189 | 1.4303914 | 0.852118 | 0.720119 | 0.1725 |
| 2014 | 4 | Bank of Africa Ltd | 0.028554 | 1.2969887 | 0.692078 | 0.618289 | 0.1676 |
| 2015 | 4 | Bank of Africa Ltd | 0.088585 | 1.2070458 | 0.45837 | 0.545598 | 0.1893 |
| 2006 | 5 | Bank of Baroda | 0 | 0 | 0 | 0 | 0 |
| 2007 | 5 | Bank of Baroda | 0 | 0 | 0 | 0 | 0 |
| 2008 | 5 | Bank of Baroda | 0 | 0 | 0 | 0 | 0 |
| 2009 | 5 | Bank of Baroda | 0 | 0 | 0 | 0 | 0 |
| 2010 | 5 | Bank of Baroda | 0 | 0 | 0 | 0 | 0 |
| 2011 | 5 | Bank of Baroda | 0.44036 | 1.2578532 | 0.551875 | 0.521621 | 0.2485 |
| 2012 | 5 | Bank of Baroda | 0.282256 | 1.2106446 | 0.566109 | 0.47514 | 0.2454 |
| 2013 | 5 | Bank of Baroda | 0.361504 | 1.1709367 | 0.574513 | 0.453231 | 0.2262 |
| 2014 | 5 | Bank of Baroda | 0.313385 | 1.1812693 | 0.646431 | 0.458277 | 0.2195 |
| 2015 | 5 | Bank of Baroda | 0.286684 | 1.1946563 | 0.713681 | 0.454956 | 0.225 |
| 2006 | 6 | Commercial Bank of Africa Ltd | 0 | 0 | 0 | 0 | 0 |
| 2007 | 6 | Commercial Bank of Africa Ltd | 0 | 0 | 0 | 0 | 0 |
| 2008 | 6 | Commercial Bank of Africa Ltd | 0 | 0 | 1.150884 | 0.571535 | 0 |
| 2009 | 6 | Commercial Bank of Africa Ltd | 0 | 0 | 1.21667 | 0.585325 | 0 |
| 2010 | 6 | Commercial Bank of Africa Ltd | 0 | 0 | 1.415977 | 0.607655 | 0 |
| 2011 | 6 | Commercial Bank of Africa Ltd | 0.21246 | 0.9755576 | 1.357757 | 0.568712 | 0.1718 |
| 2012 | 6 | Commercial Bank of Africa Ltd | 0.228259 | 1.1132661 | 0.049945 | 0.528789 | 0.1804 |
| 2013 | 6 | Commercial Bank of Africa Ltd | 0.210083 | 1.1298158 | 0.012141 | 0.549639 | 0.1824 |
| 2014 | 6 | Commercial Bank of Africa Ltd | 0.040102 | 0 | 0.01066 | 0.566945 | 0 |
| 2015 | 6 | Commercial Bank of Africa Ltd | 0 | 0 | 0 | 0 | 0 |
| 2006 | 7 | Consolidated Bank of Kenya Ltd | 0.04503 | 1.0749441 | 0.083418 | 0.400488 | 0.2648 |
| 2007 | 7 | Consolidated Bank of Kenya Ltd | 0.089 | 1.094231 | 0.089521 | 0.416358 | 0.2672 |
| 2008 | 7 | Consolidated Bank of Kenya Ltd | 0.079021 | 1.1167651 | 0.089344 | 0.496121 | 0.21 |
| 2009 | 7 | Consolidated Bank of Kenya Ltd | 0.131118 | 1.1768662 | 0.104464 | 0.511302 | 0.2524 |
| 2010 | 7 | Consolidated Bank of Kenya Ltd | 0.120574 | 1.2482429 | 0.135784 | 0.577059 | 0.2528 |
| 2011 | 7 | Consolidated Bank of Kenya Ltd | 0.032568 | 1.3017752 | 0.254504 | 0.600405 | 0.2632 |
| 2012 | 7 | Consolidated Bank of Kenya Ltd | -0.02414 | 1.2651207 | 0.222992 | 0.559802 | 0.2724 |
| 2013 | 7 | Consolidated Bank of Kenya Ltd | 0.020761 | 1.3946744 | 0.23989 | 0.64694 | 0.312 |
| 2014 | 7 | Consolidated Bank of Kenya Ltd | -0.0579 | 1.3371353 | 0.190111 | 0.610997 | 0.2987 |
| 2015 | 7 | Consolidated Bank of Kenya Ltd | 0 | 0 | 0 | 0 | 0 |
| 2006 | 8 | Diamond Trust Bank Kenya Ltd | 0 | 0 | 0 | 0 | 0 |
| 2007 | 8 | Diamond Trust Bank Kenya Ltd | 0 | 0 | 0 | 0 | 0 |
| 2008 | 8 | Diamond Trust Bank Kenya Ltd | 0 | 0 | 0 | 0 | 0 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2009 | 8 | Diamond Trust Bank Kenya Ltd | 0.236637 | 1.5970055 | 0.944127 | 0.873898 | 0.17 |
| 2010 | 8 | Diamond Trust Bank Kenya Ltd | 0.333955 | 1.6052504 | 0.998656 | 0.874654 | 0.1684 |
| 2011 | 8 | Diamond Trust Bank Kenya Ltd | 0.394368 | 1.2838386 | 1.110995 | 0.920519 | 0.1694 |
| 2012 | 8 | Diamond Trust Bank Kenya Ltd | 0.428013 | 1.6521699 | 0.957709 | 0.927998 | 0.1688 |
| 2013 | 8 | Diamond Trust Bank Kenya Ltd | 0.381759 | 1.652271 | 0.652054 | 0.972042 | 0.1758 |
| 2014 | 8 | Diamond Trust Bank Kenya Ltd | 0.329142 | 1.5987934 | 0.236326 | 0.975052 | 0.1886 |
| 2015 | 8 | Diamond Trust Bank Kenya Ltd | 0.353251 | 1.5562954 | 0.270835 | 0.929803 | 0.1856 |
| 2006 | 9 | Equity Bank Ltd | 0 | 0 | 0 | 0 | 0 |
| 2007 | 9 | Equity Bank Ltd | 0 | 0 | 0 | 0 | 0 |
| 2008 | 9 | Equity Bank Ltd | 0 | 0 | 0 | 0 | 0 |
| 2009 | 9 | Equity Bank Ltd | 0 | 0 | 0 | 0 | 0 |
| 2010 | 9 | Equity Bank Ltd | 0.197131 | 0 | 0.014485 | 0.584816 | 0 |
| 2011 | 9 | Equity Bank Ltd | 0.279055 | 0 | 0.017281 | 0.643391 | 0 |
| 2012 | 9 | Equity Bank Ltd | 0.269292 | 1.1868738 | 0.019315 | 0.628701 | 0.1592 |
| 2013 | 9 | Equity Bank Ltd | 0.300282 | 1.273443 | 0.023181 | 0.719426 | 0.1544 |
| 2014 | 9 | Equity Bank Ltd | 0.296303 | 1.3370373 | 0.025385 | 0.772853 | 0.1642 |
| 2015 | 9 | Equity Bank Ltd | 0.287157 | 1.3593857 | 0.030739 | 0.790709 | 0.1678 |
| 2006 | 10 | Family Bank Ltd | 0 | 0 | 0 | 0 | 0 |
| 2007 | 10 | Family Bank Ltd | 0 | 0 | 0 | 0 | 0 |
| 2008 | 10 | Family Bank Ltd | 0.611885 | 1.1548668 | 0.010245 | 0.549706 | 0.2077 |
| 2009 | 10 | Family Bank Ltd | 0.586357 | 1.1710373 | 0.014214 | 0.560915 | 0.212 |
| 2010 | 10 | Family Bank Ltd | 0.151086 | 1.1803675 | 0.013254 | 0.510105 | 0.2723 |
| 2011 | 10 | Family Bank Ltd | 0.155167 | 1.365797 | 0.01703 | 0.628106 | 0.3391 |
| 2012 | 10 | Family Bank Ltd | 0.203458 | 1.2984079 | 0.015531 | 0.576666 | 0.3234 |
| 2013 | 10 | Family Bank Ltd | 0.268521 | 1.4024175 | 0.021067 | 0.642353 | 0.3608 |
| 2014 | 10 | Family Bank Ltd | 0.342149 | 1.2682071 | 0.024659 | 0.613544 | 0.2548 |
| 2015 | 10 | Family Bank Ltd | 0.27294 | 1.3871727 | 0.031139 | 0.68793 | 0.2983 |
| 2006 | 11 | Giro Commercial Bank Ltd | 0 | 0 | 0 | 0 | 0 |
| 2007 | 11 | Giro Commercial Bank Ltd | 0 | 0 | 0 | 0 | 0 |
| 2008 | 11 | Giro Commercial Bank Ltd | 0 | 0 | 0 | 0 | 0 |
| 2009 | 11 | Giro Commercial Bank Ltd | 0.139581 | 1.0794147 | 0.473447 | 0.524054 | 0.0807 |
| 2010 | 11 | Giro Commercial Bank Ltd | 0.168114 | 1.0943952 | 0.558727 | 0.482021 | 0.1235 |
| 2011 | 11 | Giro Commercial Bank Ltd | 0.154936 | 1.2028308 | 0.679124 | 0.53689 | 0.157 |
| 2012 | 11 | Giro Commercial Bank Ltd | 0.071662 | 1.0991982 | 0.60849 | 0.44943 | 0.1526 |
| 2013 | 11 | Giro Commercial Bank Ltd | 0.168015 | 1.1847131 | 0.731857 | 0.507084 | 0.1599 |
| 2014 | 11 | Giro Commercial Bank Ltd | 0.154753 | 1.2142987 | 0.809654 | 0.511603 | 0.172 |
| 2015 | 11 | Giro Commercial Bank Ltd | 0.164411 | 0.9503152 | 1.126313 | 0.589943 | 0.1639 |
| 2006 | 12 | Investment & Mortgages Bank Ltd | 0.292839 | 0 | 0.804928 | 0.489186 | 0 |
| 2007 | 12 | Investment & Mortgages Bank Ltd | 0.267809 | 0 | 0.871265 | 0.632268 | 0 |
| 2008 | 12 | Investment & Mortgages Bank Ltd | -0.25864 | 0 | 1.111671 | 0.804252 | 0 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2009 | 12 | Investment & Mortgages Bank Ltd | 0.210083 | 1.3927054 | 0.955157 | 0.685159 | 0.1526 |
| 2010 | 12 | Investment & Mortgages Bank Ltd | 0.29369 | 1.2095728 | 1.297055 | 0.803444 | 0.1812 |
| 2011 | 12 | Investment & Mortgages Bank Ltd | 0.347024 | 1.2877846 | 1.404967 | 0.86297 | 0.1819 |
| 2012 | 12 | Investment & Mortgages Bank Ltd | 0.31726 | 1.3928852 | 1.510178 | 0.959736 | 0.1727 |
| 2013 | 12 | Investment & Mortgages Bank Ltd | 0.327486 | 1.9878813 | 5.782379 | 0.832898 | 0.1825 |
| 2014 | 12 | Investment & Mortgages Bank Ltd | 0.299545 | 1.1384186 | 1.243209 | 0.740064 | 0.1824 |
| 2015 | 12 | Investment & Mortgages Bank Ltd | 0.301691 | 1.1612362 | 1.161841 | 0.777343 | 0.1815 |
| 2006 | 13 | Imperial Bank Ltd | 0 | 0 | 0.792928 | 0.477419 | 0 |
| 2007 | 13 | Imperial Bank Ltd | 0 | 0 | 0.616349 | 0.623365 | 0 |
| 2008 | 13 | Imperial Bank Ltd | 0 | 1.5637965 | 0.562029 | 0.654572 | 0.4198 |
| 2009 | 13 | Imperial Bank Ltd | 0 | 1.4298809 | 0.535699 | 0.660044 | 0.2848 |
| 2010 | 13 | Imperial Bank Ltd | 0 | 1.2103359 | 0.431445 | 0.574875 | 0.1678 |
| 2011 | 13 | Imperial Bank Ltd | 0 | 1.2974789 | 0.475654 | 0.61125 | 0.2112 |
| 2012 | 13 | Imperial Bank Ltd | 0 | 1.3212271 | 0.522721 | 0.615554 | 0.2228 |
| 2013 | 13 | Imperial Bank Ltd | 0 | 0 | 0 | 0 | 0 |
| 2014 | 13 | Imperial Bank Ltd | 0 | 0 | 0 | 0 | 0 |
| 2015 | 13 | Imperial Bank Ltd | 0 | 0 | 0 | 0 | 0 |
| 2006 | 14 | Kenya Commercial Bank Ltd | 0 | 0 | 0 | 0 | 0 |
| 2007 | 14 | Kenya Commercial Bank Ltd | 0 | 0 | 0 | 0 | 0 |
| 2008 | 14 | Kenya Commercial Bank Ltd | 0.283934 | 1.2387893 | 0.184833 | 0.513931 | 0.2983 |
| 2009 | 14 | Kenya Commercial Bank Ltd | 0.250417 | 1.3810664 | 0.160227 | 0.669109 | 0.2895 |
| 2010 | 14 | Kenya Commercial Bank Ltd | 0.185668 | 0 | 0.110453 | 0.664109 | 0 |
| 2011 | 14 | Kenya Commercial Bank Ltd | 0.238645 | 0 | 0.1202 | 0.703463 | 0 |
| 2012 | 14 | Kenya Commercial Bank Ltd | 0.246278 | 1.3863463 | 0.164918 | 0.696007 | 0.2671 |
| 2013 | 14 | Kenya Commercial Bank Ltd | 0.211384 | 1.3805473 | 0.132334 | 0.704338 | 0.2584 |
| 2014 | 14 | Kenya Commercial Bank Ltd | 0.210157 | 1.4778678 | 0.122087 | 0.752667 | 0.3091 |
| 2015 | 14 | Kenya Commercial Bank Ltd | 0.27567 | 1.4791062 | 0.091174 | 0.739657 | 0.3285 |
| 2006 | 15 | National Bank of Kenya Ltd | 0 | 0 | 0 | 0 | 0 |
| 2007 | 15 | National Bank of Kenya Ltd | 0 | 0 | 0 | 0 | 0 |
| 2008 | 15 | National Bank of Kenya Ltd | 0.22142 | 0.75124 | 0.03216 | 0.200727 | 0.1494 |
| 2009 | 15 | National Bank of Kenya Ltd | 0.176268 | 0.8208342 | 0.038172 | 0.251419 | 0.1673 |
| 2010 | 15 | National Bank of Kenya Ltd | 0.211057 | 0.9520159 | 0.052314 | 0.347244 | 0.2003 |
| 2011 | 15 | National Bank of Kenya Ltd | 0.213808 | 1.0027617 | 0.063247 | 0.408767 | 0.1877 |
| 2012 | 15 | National Bank of Kenya Ltd | 0.057052 | 0.998804 | 0.059716 | 0.422098 | 0.171 |
| 2013 | 15 | National Bank of Kenya Ltd | 0.097677 | 1.0169561 | 0.075779 | 0.427773 | 0.1808 |
| 2014 | 15 | National Bank of Kenya Ltd | 0.148625 | 1.1835315 | 0.11475 | 0.534253 | 0.2344 |
| 2015 | 15 | National Bank of Kenya Ltd | 0.051465 | 1.1643507 | 0.097503 | 0.541147 | 0.2112 |
| 2006 | 16 | National Industrial Credit Bank Ltd | 0.207351 | 0 | 0.901867 | 0.566689 | 0 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2007 | 16 | National Industrial Credit Bank Ltd | 0.185359 | 1.0454369 | 1.035288 | 0.679735 | 0.1844 |
| 2008 | 16 | National Industrial Credit Bank Ltd | 0.193234 | 1.0821872 | 1.191345 | 0.686876 | 0.188 |
| 2009 | 16 | National Industrial Credit Bank Ltd | 0.211047 | 1.0709755 | 1.117409 | 0.701787 | 0.1742 |
| 2010 | 16 | National Industrial Credit Bank Ltd | 0.281426 | 1.138356 | 1.243144 | 0.744012 | 0.1784 |
| 2011 | 16 | National Industrial Credit Bank Ltd | 0.275775 | 1.1982765 | 1.47466 | 0.769547 | 0.1742 |
| 2012 | 16 | National Industrial Credit Bank Ltd | 0.239977 | 1.1252449 | 1.371286 | 0.702944 | 0.185 |
| 2013 | 16 | National Industrial Credit Bank Ltd | 0.325626 | 1.1389809 | 1.22885 | 0.739419 | 0.186 |
| 2014 | 16 | National Industrial Credit Bank Ltd | 0.176348 | 1.1444298 | 1.26971 | 0.733658 | 0.1904 |
| 2015 | 16 | National Industrial Credit Bank Ltd | 0.201831 | 1.1458416 | 1.262881 | 0.731408 | 0.1952 |
| 2006 | 17 | Oriental Commercial Bank Ltd | 0 | 0 | 0 | 0 | 0 |
| 2007 | 17 | Oriental Commercial Bank Ltd | 0 | 0 | 0 | 0 | 0 |
| 2008 | 17 | Oriental Commercial Bank Ltd | 0 | 0 | 0 | 0 | 0 |
| 2009 | 17 | Oriental Commercial Bank Ltd | -0.07715 | 1.4066428 | 0.303357 | 0.44373 | 0.5166 |
| 2010 | 17 | Oriental Commercial Bank Ltd | -0.01414 | 1.2200031 | 0.4532 | 0.537516 | 0.2112 |
| 2011 | 17 | Oriental Commercial Bank Ltd | 0.012056 | 1.2810735 | 0.482747 | 0.556262 | 0.2486 |
| 2012 | 17 | Oriental Commercial Bank Ltd | 0.045127 | 1.2844399 | 0.582616 | 0.554984 | 0.2366 |
| 2013 | 17 | Oriental Commercial Bank Ltd | 0.108389 | 1.4881378 | 0.691991 | 0.575853 | 0.4012 |
| 2014 | 17 | Oriental Commercial Bank Ltd | 0.025535 | 1.5751249 | 0.881669 | 0.588827 | 0.4436 |
| 2015 | 17 | Oriental Commercial Bank Ltd | -0.00511 | 1.3220409 | 1.08323 | 0.617349 | 0.5154 |
| 2006 | 18 | Paramount-Universal Bank Ltd | 0 | 0 | 0 | 0 | 0 |
| 2007 | 18 | Paramount-Universal Bank Ltd | 0 | 0 | 0 | 0 | 0 |
| 2008 | 18 | Paramount-Universal Bank Ltd | 0 | 0 | 0 | 0 | 0 |
| 2009 | 18 | Paramount-Universal Bank Ltd | 0 | 0 | 0 | 0 | 0 |
| 2010 | 18 | Paramount-Universal Bank Ltd | 0 | 0 | 0 | 0 | 0 |
| 2011 | 18 | Paramount-Universal Bank Ltd | 0 | 0 | 0 | 0 | 0 |
| 2012 | 18 | Paramount-Universal Bank Ltd | -0.04904 | 0.997214 | 0.282167 | 0.377533 | 0.1769 |
| 2013 | 18 | Paramount-Universal Bank Ltd | 0.08812 | 1.0246918 | 0.307895 | 0.407523 | 0.1701 |
| 2014 | 18 | Paramount-Universal Bank Ltd | 0.069385 | 1.1140802 | 0.638478 | 0.427514 | 0.1844 |
| 2015 | 18 | Paramount-Universal Bank Ltd | 0.165671 | 1.2408258 | 0.685865 | 0.557762 | 0.173 |
| 2006 | 19 | Standard Chartered Bank Ltd | 0 | 0 | 0.299272 | 0.327736 | 0 |
| 2007 | 19 | Standard Chartered Bank Ltd | 0 | 0 | 0.311698 | 0.44129 | 0 |
| 2008 | 19 | Standard Chartered Bank Ltd | 0.330527 | 1.089994 | 0.353533 | 0.446819 | 0.1885 |
| 2009 | 19 | Standard Chartered Bank Ltd | 0.438443 | 1.159984 | 0.399488 | 0.464849 | 0.2328 |
| 2010 | 19 | Standard Chartered Bank Ltd | 0.447063 | 1.0742362 | 0.395753 | 0.431124 | 0.1814 |
| 2011 | 19 | Standard Chartered Bank Ltd | 0.364368 | 1.2738874 | 0.610719 | 0.593348 | 0.183 |
| 2012 | 19 | Standard Chartered Bank Ltd | 0.374932 | 1.278012 | 0.668316 | 0.585873 | 0.185 |
| 2013 | 19 | Standard Chartered Bank Ltd | 0.363413 | 1.3217957 | 0.674561 | 0.598416 | 0.2152 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2014 | 19 | Standard Chartered Bank Ltd | 0.324603 | 1.3124777 | 0.587058 | 0.567181 | 0.2517 |
| 2015 | 19 | Standard Chartered Bank Ltd | 0.272512 | 1.2788693 | 0.566533 | 0.527094 | 0.2616 |
| 2006 | 20 | Transnational Bank Ltd | 0 | 0 | 0 | 0 | 0 |
| 2007 | 20 | Transnational Bank Ltd | 0 | 0 | 0 | 0 | 0 |
| 2008 | 20 | Transnational Bank Ltd | 0 | 0 | 0 | 0 | 0 |
| 2009 | 20 | Transnational Bank Ltd | 0.06076 | 1.1792617 | 0.108969 | 0.523347 | 0.242 |
| 2010 | 20 | Transnational Bank Ltd | 0.068636 | 1.0350715 | 0.093883 | 0.448971 | 0.1747 |
| 2011 | 20 | Transnational Bank Ltd | 0.134999 | 1.0213213 | 0.112254 | 0.453959 | 0.1529 |
| 2012 | 20 | Transnational Bank Ltd | 0.087689 | 1.0473337 | 0.116065 | 0.481536 | 0.1507 |
| 2013 | 20 | Transnational Bank Ltd | 0.081966 | 1.1078058 | 0.130423 | 0.532615 | 0.1577 |
| 2014 | 20 | Transnational Bank Ltd | 0.114628 | 1.1735476 | 0.130068 | 0.586816 | 0.1693 |
| 2015 | 20 | Transnational Bank Ltd | 0.1198 | 1.2205187 | 0.119468 | 0.631254 | 0.1736 |

Source: CBK 2006,2007,2008,2009,2010,2011,2012,2013,2014,2015

Table 4.9

*ICR-based Setting of Credit terms and Conditions Variables and RORAC*

| ID | Bank | RORAC | Setting of credit terms & conditions ratio | Collateral coverage ratio | Loan Pricing ratio |
|---|---|---|---|---|---|
| 1 | Barclays Bank Of Kenya Ltd | 0.38966 | 1.06498849 | 0.035607 | 0.13299 |
| 1 | Barclays Bank Of Kenya Ltd | 0.273857 | 1.05545378 | 0.045643 | 0.125462 |
| 1 | Barclays Bank Of Kenya Ltd | 0.223914 | 1.09463537 | 0.03715 | 0.162945 |
| 1 | Barclays Bank Of Kenya Ltd | 0.235102 | 1.11450911 | 0.054255 | 0.18624 |
| 1 | Barclays Bank Of Kenya Ltd | 0.246532 | 1.12439847 | 0.043137 | 0.193906 |
| 1 | Barclays Bank Of Kenya Ltd | 0.273008 | 1.10385728 | 0.036848 | 0.172107 |
| 1 | Barclays Bank Of Kenya Ltd | 0.304467 | 1.12762737 | 0.040936 | 0.196694 |
| 1 | Barclays Bank Of Kenya Ltd | 0.284237 | 1.10316074 | 0.056187 | 0.175278 |
| 1 | Barclays Bank Of Kenya Ltd | 0.278772 | 1.10350823 | 0.067307 | 0.17785 |
| 1 | Barclays Bank Of Kenya Ltd | 0.256548 | 1.08544326 | 0.112184 | 0.16876 |
| 2 | Cooperative Bank of Kenya Ltd | 0.247473 | 1.01668644 | 0.105992 | 0.098765 |
| 2 | Cooperative Bank of Kenya Ltd | 0.303483 | 1.04661584 | 0.106624 | 0.128821 |
| 2 | Cooperative Bank of Kenya Ltd | 0.163592 | 1.00534856 | 0.283326 | 0.122894 |
| 2 | Cooperative Bank of Kenya Ltd | 0.166473 | 0.97174984 | 0.538442 | 0.140318 |
| 2 | Cooperative Bank of Kenya Ltd | 0.218199 | 0.94851482 | 0.62037 | 0.133469 |
| 2 | Cooperative Bank of Kenya Ltd | -0.43344 | 0.96511281 | 0.608768 | 0.147746 |
| 2 | Cooperative Bank of Kenya Ltd | 0.155424 | 0.96506006 | 0.767945 | 0.179529 |
| 2 | Cooperative Bank of Kenya Ltd | -0.17269 | 0.48696336 | 2.328011 | 0.013446 |
| 2 | Cooperative Bank of Kenya Ltd | 0.115539 | 0.82633668 | 1.303552 | 0.147927 |
| 2 | Cooperative Bank of Kenya Ltd | 0.128326 | 0.85937768 | 1.172078 | 0.154673 |
| 3 | African Banking Corporation Ltd | 0 | 0 | 0 | 0 |
| 3 | African Banking Corporation Ltd | 0 | 0 | 0 | 0 |
| 3 | African Banking Corporation Ltd | 0 | 0 | 0 | 0 |
| 3 | African Banking Corporation Ltd | 0 | 0 | 0 | 0 |
| 3 | African Banking Corporation Ltd | 0.228417 | 0.85329556 | 1.086198 | 0.131415 |
| 3 | African Banking Corporation Ltd | 0.174047 | 0 | 0 | 0 |
| 3 | African Banking Corporation Ltd | 0.148238 | 0.89358997 | 1.345175 | 0.223505 |
| 3 | African Banking Corporation Ltd | 0.199374 | 0.91539711 | 1.222087 | 0.220694 |
| 3 | African Banking Corporation Ltd | 0.078982 | 0.91539186 | 1.116813 | 0.199635 |
| 3 | African Banking Corporation Ltd | 0.077612 | 0.90208101 | 1.157926 | 0.194546 |
| 4 | Bank of Africa Ltd | -0.03884 | 0 | 0 | 0.115028 |
| 4 | Bank of Africa Ltd | 0.047069 | 1.05569565 | 0.010046 | 0.118585 |
| 4 | Bank of Africa Ltd | 0.028061 | 1.07129383 | 0.007914 | 0.133757 |
| 4 | Bank of Africa Ltd | 0.034108 | 1.09071505 | 0.007138 | 0.153023 |
| 4 | Bank of Africa Ltd | 0.084725 | 1.07915175 | 0.016209 | 0.143274 |
| 4 | Bank of Africa Ltd | 0.079577 | 1.08279288 | 0.013908 | 0.146454 |
| 4 | Bank of Africa Ltd | 0.072929 | 1.18107283 | 0.024812 | 0.246915 |
| 4 | Bank of Africa Ltd | 0.070189 | 1.10843837 | 0.051321 | 0.179583 |
| 4 | Bank of Africa Ltd | 0.028554 | 1.07307553 | 0.062706 | 0.146497 |
| 4 | Bank of Africa Ltd | 0.088585 | 1.07047796 | 0.257785 | 0.182915 |
| 5 | Bank of Baroda | 0 | 0 | 0 | 0 |
| 5 | Bank of Baroda | 0 | 0 | 0 | 0 |
| 5 | Bank of Baroda | 0 | 0 | 0 | 0 |
| 5 | Bank of Baroda | 0 | 0 | 0 | 0 |
| 5 | Bank of Baroda | 0 | 0 | 0 | 0 |

| | | | | | |
|---|---|---|---|---|---|
| 5 | Bank of Baroda | 0.44036 | 1.13737535 | 0.033849 | 0.205025 |
| 5 | Bank of Baroda | 0.282256 | 1.20298278 | 0.026594 | 0.269182 |
| 5 | Bank of Baroda | 0.361504 | 1.19212699 | 0.025363 | 0.25808 |
| 5 | Bank of Baroda | 0.313385 | 1.1714083 | 0.037481 | 0.239784 |
| 5 | Bank of Baroda | 0.286684 | 1.16860616 | 0.076214 | 0.244729 |
| 6 | Commercial Bank of Africa Ltd | 0 | 0 | 0 | 0 |
| 6 | Commercial Bank of Africa Ltd | 0 | 0 | 0 | 0 |
| 6 | Commercial Bank of Africa Ltd | 0 | 0 | 0 | 0 |
| 6 | Commercial Bank of Africa Ltd | 0 | 0 | 0 | 0 |
| 6 | Commercial Bank of Africa Ltd | 0 | 0 | 0 | 0 |
| 6 | Commercial Bank of Africa Ltd | 0.21246 | 1.07259274 | 0.031163 | 0.139705 |
| 6 | Commercial Bank of Africa Ltd | 0.228259 | 1.13775325 | 0.023494 | 0.203332 |
| 6 | Commercial Bank of Africa Ltd | 0.210083 | 0 | 0 | 0.172756 |
| 6 | Commercial Bank of Africa Ltd | 0.040102 | 0 | 0 | 0.149006 |
| 6 | Commercial Bank of Africa Ltd | 0 | 0 | 0 | 0 |
| 7 | Consolidated Bank of Kenya Ltd | 0.04503 | 0.78345621 | 1.682704 | 0.180877 |
| 7 | Consolidated Bank of Kenya Ltd | 0.089 | 0.73885268 | 1.823163 | 0.164365 |
| 7 | Consolidated Bank of Kenya Ltd | 0.079021 | 0.74610192 | 1.797818 | 0.166545 |
| 7 | Consolidated Bank of Kenya Ltd | 0.131118 | 1.00147784 | 0.510341 | 0.164426 |
| 7 | Consolidated Bank of Kenya Ltd | 0.120574 | 1.02412081 | 0.308417 | 0.146684 |
| 7 | Consolidated Bank of Kenya Ltd | 0.032568 | 1.06744444 | 0.220072 | 0.172339 |
| 7 | Consolidated Bank of Kenya Ltd | -0.02414 | 1.14906347 | 0.258212 | 0.261586 |
| 7 | Consolidated Bank of Kenya Ltd | 0.020761 | 1.0597465 | 0.47287 | 0.2152 |
| 7 | Consolidated Bank of Kenya Ltd | -0.0579 | 1.07127368 | 0.454082 | 0.22297 |
| 7 | Consolidated Bank of Kenya Ltd | 0 | 0 | 0 | 0 |
| 8 | Diamond Trust Bank Kenya Ltd | 0 | 0 | 0 | 0 |
| 8 | Diamond Trust Bank Kenya Ltd | 0 | 0 | 0 | 0 |
| 8 | Diamond Trust Bank Kenya Ltd | 0 | 0 | 0 | 0 |
| 8 | Diamond Trust Bank Kenya Ltd | 0.236637 | 1.09162247 | 0.015584 | 0.155619 |
| 8 | Diamond Trust Bank Kenya Ltd | 0.333955 | 1.07903028 | 0.018748 | 0.14366 |
| 8 | Diamond Trust Bank Kenya Ltd | 0.394368 | 1.0753417 | 0.022918 | 0.140805 |
| 8 | Diamond Trust Bank Kenya Ltd | 0.428013 | 1.12264466 | 0.027512 | 0.189027 |
| 8 | Diamond Trust Bank Kenya Ltd | 0.381759 | 1.08830202 | 0.028302 | 0.154842 |
| 8 | Diamond Trust Bank Kenya Ltd | 0.329142 | 1.0849973 | 0.026421 | 0.151162 |
| 8 | Diamond Trust Bank Kenya Ltd | 0.353251 | 1.07859635 | 0.029902 | 0.145457 |
| 9 | Equity Bank Ltd | 0 | 0 | 0 | 0 |
| 9 | Equity Bank Ltd | 0 | 0 | 0 | 0 |
| 9 | Equity Bank Ltd | 0 | 0 | 0 | 0 |
| 9 | Equity Bank Ltd | 0 | 0 | 0 | 0 |
| 9 | Equity Bank Ltd | 0.197131 | 1.10741162 | 0.03816 | 0.175924 |
| 9 | Equity Bank Ltd | 0.279055 | 1.10626543 | 0.013793 | 0.169904 |
| 9 | Equity Bank Ltd | 0.269292 | 1.1653043 | 0.005734 | 0.227331 |
| 9 | Equity Bank Ltd | 0.300282 | 1.12060606 | 0.023021 | 0.18609 |
| 9 | Equity Bank Ltd | 0.296303 | 1.10237718 | 0.009366 | 0.16513 |
| 9 | Equity Bank Ltd | 0.287157 | 1.09856963 | 0.007777 | 0.161005 |
| 10 | Family Bank Ltd | 0 | 0 | 0 | 0 |
| 10 | Family Bank Ltd | 0 | 0 | 0 | 0 |
| 10 | Family Bank Ltd | 0.611885 | 1.14971602 | 0.065206 | 0.223637 |
| 10 | Family Bank Ltd | 0.586357 | 1.13708746 | 0.060977 | 0.210163 |
| 10 | Family Bank Ltd | 0.151086 | 1.11563969 | 0.037969 | 0.184113 |
| 10 | Family Bank Ltd | 0.155167 | 1.10812569 | 0.025655 | 0.174137 |
| 10 | Family Bank Ltd | 0.203458 | 1.19910431 | 0.036266 | 0.267238 |
| 10 | Family Bank Ltd | 0.268521 | 1.12371004 | 0.035071 | 0.191604 |
| 10 | Family Bank Ltd | 0.342149 | 1.11245155 | 0.072169 | 0.187765 |

| | | | | | |
|---|---|---|---|---|---|
| 10 | Family Bank Ltd | 0.27294 | 1.1104126 | 0.041609 | 0.179614 |
| 11 | Giro Commercial Bank Ltd | 0 | 0 | 0 | 0 |
| 11 | Giro Commercial Bank Ltd | 0 | 0 | 0 | 0 |
| 11 | Giro Commercial Bank Ltd | 0 | 0 | 0 | 0 |
| 11 | Giro Commercial Bank Ltd | 0.139581 | 1.12700701 | 0.015209 | 0.190929 |
| 11 | Giro Commercial Bank Ltd | 0.168114 | 1.11025321 | 0.012974 | 0.173728 |
| 11 | Giro Commercial Bank Ltd | 0.154936 | 1.12415147 | 0.006446 | 0.186321 |
| 11 | Giro Commercial Bank Ltd | 0.071662 | 1.23439085 | 0.01214 | 0.297699 |
| 11 | Giro Commercial Bank Ltd | 0.168015 | 1.14656067 | 0.053561 | 0.218153 |
| 11 | Giro Commercial Bank Ltd | 0.154753 | 1.13199198 | 0.060783 | 0.205029 |
| 11 | Giro Commercial Bank Ltd | 0.164411 | 1.13210809 | 0.028412 | 0.198671 |
| 12 | Investment & Mortgages Bank Ltd | 0.292839 | 1.07948184 | 0.01408 | 0.143178 |
| 12 | Investment & Mortgages Bank Ltd | 0.267809 | 1.08047533 | 0.012751 | 0.143906 |
| 12 | Investment & Mortgages Bank Ltd | -0.25864 | 1.06067169 | 0.052527 | 0.132057 |
| 12 | Investment & Mortgages Bank Ltd | 0.210083 | 1.10189557 | 0.019619 | 0.166699 |
| 12 | Investment & Mortgages Bank Ltd | 0.29369 | 1.06893682 | 0.008636 | 0.131544 |
| 12 | Investment & Mortgages Bank Ltd | 0.347024 | 1.07450163 | 0.003496 | 0.136081 |
| 12 | Investment & Mortgages Bank Ltd | 0.31726 | 1.09802485 | 0.002823 | 0.15947 |
| 12 | Investment & Mortgages Bank Ltd | 0.327486 | 1.09526813 | 0.007172 | 0.157583 |
| 12 | Investment & Mortgages Bank Ltd | 0.299545 | 1.0927918 | 0.006564 | 0.154985 |
| 12 | Investment & Mortgages Bank Ltd | 0.301691 | 1.10465813 | 0.027765 | 0.171091 |
| 13 | Imperial Bank Ltd | 0 | 0 | 0 | 0.278547 |
| 13 | Imperial Bank Ltd | 0 | 0 | 0 | 0.257609 |
| 13 | Imperial Bank Ltd | 0 | 0 | 0 | 0.267406 |
| 13 | Imperial Bank Ltd | 0 | 0 | 0 | 0.257429 |
| 13 | Imperial Bank Ltd | 0 | 0 | 0 | 0.25 |
| 13 | Imperial Bank Ltd | 0 | 1.17428184 | 0.231049 | 0.281372 |
| 13 | Imperial Bank Ltd | 0 | 1.2145381 | 0.244646 | 0.324347 |
| 13 | Imperial Bank Ltd | 0 | 0 | 0 | 0 |
| 13 | Imperial Bank Ltd | 0 | 0 | 0 | 0 |
| 13 | Imperial Bank Ltd | 0 | 0 | 0 | 0 |
| 14 | Kenya Commercial Bank Ltd | 0 | 0 | 0 | 0 |
| 14 | Kenya Commercial Bank Ltd | 0 | 0 | 0 | 0 |
| 14 | Kenya Commercial Bank Ltd | 0.283934 | 0 | 0 | 0.157663 |
| 14 | Kenya Commercial Bank Ltd | 0.250417 | 0 | 0 | 0.148987 |
| 14 | Kenya Commercial Bank Ltd | 0.185668 | 0 | 0 | 0.156023 |
| 14 | Kenya Commercial Bank Ltd | 0.238645 | 0 | 0 | 0.14342 |
| 14 | Kenya Commercial Bank Ltd | 0.246278 | 0.93426418 | 1.041977 | 0.20354 |
| 14 | Kenya Commercial Bank Ltd | 0.211384 | 0.9140498 | 1.039035 | 0.182737 |
| 14 | Kenya Commercial Bank Ltd | 0.210157 | 0.3129558 | 3.967438 | 0.167323 |
| 14 | Kenya Commercial Bank Ltd | 0.27567 | 0.26683575 | 4.177132 | 0.163142 |
| 15 | National Bank of Kenya Ltd | 0 | 0 | 0 | 0 |
| 15 | National Bank of Kenya Ltd | 0 | 0 | 0 | 0 |
| 15 | National Bank of Kenya Ltd | 0.22142 | 1.07806969 | 1.418101 | 0.42257 |
| 15 | National Bank of Kenya Ltd | 0.176268 | 1.08808625 | 0.959714 | 0.340909 |
| 15 | National Bank of Kenya Ltd | 0.211057 | 1.07395971 | 0.628334 | 0.260507 |
| 15 | National Bank of Kenya Ltd | 0.213808 | 1.07136309 | 0.489027 | 0.230048 |
| 15 | National Bank of Kenya Ltd | 0.057052 | 1.13298869 | 0.517639 | 0.297397 |
| 15 | National Bank of Kenya Ltd | 0.097677 | 0.99870151 | 0.733913 | 0.206364 |
| 15 | National Bank of Kenya Ltd | 0.148625 | 0.95767546 | 0.722034 | 0.162962 |
| 15 | National Bank of Kenya Ltd | 0.051465 | 0.90542835 | 1.071663 | 0.180641 |
| 16 | National Industrial Credit Bank Ltd | 0.207351 | 0 | 0 | 0.142728 |
| 16 | National Industrial Credit Bank Ltd | 0.185359 | 1.06076443 | 0.021928 | 0.12603 |
| 16 | National Industrial Credit Bank Ltd | 0.193234 | 1.06147432 | 0.013688 | 0.125092 |

| | | | | | |
|---|---|---|---|---|---|
| 16 | National Industrial Credit Bank Ltd | 0.211047 | 1.07285941 | 0.011842 | 0.136108 |
| 16 | National Industrial Credit Bank Ltd | 0.281426 | 1.06010437 | 0.001521 | 0.121289 |
| 16 | National Industrial Credit Bank Ltd | 0.275775 | 1.05880427 | 0.004768 | 0.120638 |
| 16 | National Industrial Credit Bank Ltd | 0.239977 | 1.09750688 | 0.009505 | 0.160288 |
| 16 | National Industrial Credit Bank Ltd | 0.325626 | 1.07393849 | 0.023092 | 0.139437 |
| 16 | National Industrial Credit Bank Ltd | 0.176348 | 1.07275951 | 0.013433 | 0.136326 |
| 16 | National Industrial Credit Bank Ltd | 0.201831 | 1.06928039 | 0.09115 | 0.14839 |
| 17 | Oriental Commercial Bank Ltd | 0 | 0 | 0 | 0 |
| 17 | Oriental Commercial Bank Ltd | 0 | 0 | 0 | 0 |
| 17 | Oriental Commercial Bank Ltd | 0 | 0 | 0 | 0 |
| 17 | Oriental Commercial Bank Ltd | -0.07715 | 0.95110947 | 0.572464 | 0.126482 |
| 17 | Oriental Commercial Bank Ltd | -0.01414 | 0.94875264 | 0.621225 | 0.133878 |
| 17 | Oriental Commercial Bank Ltd | 0.012056 | 0 | 0 | 0.164403 |
| 17 | Oriental Commercial Bank Ltd | 0.045127 | 0.64653599 | 2.672364 | 0.241889 |
| 17 | Oriental Commercial Bank Ltd | 0.108389 | 0.6722551 | 2.37026 | 0.207187 |
| 17 | Oriental Commercial Bank Ltd | 0.025535 | 0.71690261 | 2.132267 | 0.204236 |
| 17 | Oriental Commercial Bank Ltd | -0.00511 | 0.83891034 | 1.54204 | 0.208198 |
| 18 | Paramount-Universal Bank Ltd | 0 | 0 | 0 | 0 |
| 18 | Paramount-Universal Bank Ltd | 0 | 0 | 0 | 0 |
| 18 | Paramount-Universal Bank Ltd | 0 | 0 | 0 | 0 |
| 18 | Paramount-Universal Bank Ltd | 0 | 0 | 0 | 0 |
| 18 | Paramount-Universal Bank Ltd | 0 | 0 | 0 | 0 |
| 18 | Paramount-Universal Bank Ltd | 0 | 0 | 0 | 0 |
| 18 | Paramount-Universal Bank Ltd | -0.04904 | 1.16701341 | 0.098211 | 0.247536 |
| 18 | Paramount-Universal Bank Ltd | 0.08812 | 1.22292197 | 0.072433 | 0.298288 |
| 18 | Paramount-Universal Bank Ltd | 0.069385 | 1.15477097 | 0.065213 | 0.228694 |
| 18 | Paramount-Universal Bank Ltd | 0.165671 | 1.15921879 | 0.040709 | 0.228241 |
| 19 | Standard Chartered Bank Ltd | 0 | 0 | 0 | 0 |
| 19 | Standard Chartered Bank Ltd | 0 | 0 | 0 | 0 |
| 19 | Standard Chartered Bank Ltd | 0.330527 | 1.08782375 | 0.086341 | 0.165972 |
| 19 | Standard Chartered Bank Ltd | 0.438443 | 1.09401512 | 0.031078 | 0.161111 |
| 19 | Standard Chartered Bank Ltd | 0.447063 | 1.08471322 | 0.065634 | 0.15872 |
| 19 | Standard Chartered Bank Ltd | 0.364368 | 1.05505455 | 0.036801 | 0.123295 |
| 19 | Standard Chartered Bank Ltd | 0.374932 | 1.10023892 | 0.040224 | 0.169164 |
| 19 | Standard Chartered Bank Ltd | 0.363413 | 1.0897584 | 0.062403 | 0.163119 |
| 19 | Standard Chartered Bank Ltd | 0.324603 | 1.0879333 | 0.116832 | 0.17218 |
| 19 | Standard Chartered Bank Ltd | 0.272512 | 1.10477078 | 0.087725 | 0.183196 |
| 20 | Transnational Bank Ltd | 0 | 0 | 0 | 0 |
| 20 | Transnational Bank Ltd | 0 | 0 | 0 | 0 |
| 20 | Transnational Bank Ltd | 0 | 0 | 0 | 0 |
| 20 | Transnational Bank Ltd | 0.06076 | 1.09249806 | 0.30067 | 0.213512 |
| 20 | Transnational Bank Ltd | 0.068636 | 1.0625999 | 0.420954 | 0.207671 |
| 20 | Transnational Bank Ltd | 0.134999 | 1.08071613 | 0.35006 | 0.211608 |
| 20 | Transnational Bank Ltd | 0.087689 | 1.11311722 | 0.292119 | 0.232421 |
| 20 | Transnational Bank Ltd | 0.081966 | 1.10688829 | 0.222589 | 0.212286 |
| 20 | Transnational Bank Ltd | 0.114628 | 1.03810477 | 0.555999 | 0.210185 |
| 20 | Transnational Bank Ltd | 0.1198 | 1.05230999 | 0.52068 | 0.217326 |

Source: CBK 2006,2007,2008,2009,2010,2011,2012,2013,2014,2015

Table 4.10

*ICR-based Credit Monitoring Variables and RORAC*

| Year | ID | Bank | RORAC | Credit monitoring ratio | Non-performing loans ratio | Loan Loss Provision ratio | Complete Write Offs ratio |
|---|---|---|---|---|---|---|---|
| 2006 | 1 | Barclays Bank Of Kenya Ltd | 0.38966 | 0.0837626 | 0.0574529 | 0.011235 | 0.015074 |
| 2007 | 1 | Barclays Bank Of Kenya Ltd | 0.273857 | 0.0550474 | 0.030588 | 0.006322 | 0.018137 |
| 2008 | 1 | Barclays Bank Of Kenya Ltd | 0.223914 | 0.0558847 | 0.0345439 | 0.011722 | 0.009619 |
| 2009 | 1 | Barclays Bank Of Kenya Ltd | 0.235102 | 0.0549566 | 0.0396147 | 0.005454 | 0.009888 |
| 2010 | 1 | Barclays Bank Of Kenya Ltd | 0.246532 | 0.0726341 | 0.0428198 | 0.013583 | 0.016231 |
| 2011 | 1 | Barclays Bank Of Kenya Ltd | 0.273008 | 0.0537834 | 0.0329533 | 0.007116 | 0.013714 |
| 2012 | 1 | Barclays Bank Of Kenya Ltd | 0.304467 | 0.041487 | 0.025885 | 0.001346 | 0.014256 |
| 2013 | 1 | Barclays Bank Of Kenya Ltd | 0.284237 | 0.0450191 | 0.0258592 | 0.010065 | 0.009094 |
| 2014 | 1 | Barclays Bank Of Kenya Ltd | 0.278772 | 0.0484452 | 0.0276608 | 0.010892 | 0.009892 |
| 2015 | 1 | Barclays Bank Of Kenya Ltd | 0.256548 | 0.049655 | 0.0297329 | 0.011786 | 0.008136 |
| 2006 | 2 | Cooperative Bank of Kenya Ltd | 0.247473 | 0.4049942 | 0.0318849 | 0.372662 | 0.000448 |
| 2007 | 2 | Cooperative Bank of Kenya Ltd | 0.303483 | 0.4067206 | 0.0154144 | 0.162226 | 0.22908 |
| 2008 | 2 | Cooperative Bank of Kenya Ltd | 0.163592 | 0 | 0.0066702 | 0.124284 | 0 |
| 2009 | 2 | Cooperative Bank of Kenya Ltd | 0.166473 | 0.1274242 | 0.0094266 | 0.065236 | 0.052762 |
| 2010 | 2 | Cooperative Bank of Kenya Ltd | 0.218199 | 0.0621008 | 0.0087836 | 0.047777 | 0.005541 |
| 2011 | 2 | Cooperative Bank of Kenya Ltd | -0.43344 | 0 | 0.0062226 | 0.041122 | 0 |
| 2012 | 2 | Cooperative Bank of Kenya Ltd | 0.155424 | 0.051767 | 0.0080679 | 0.038248 | 0.005451 |
| 2013 | 2 | Cooperative Bank of Kenya Ltd | -0.17269 | 0.0411206 | 0.005494 | 0.031926 | 0.0037 |
| 2014 | 2 | Cooperative Bank of Kenya Ltd | 0.115539 | 0.0357721 | 0.0063933 | 0.024225 | 0.005154 |
| 2015 | 2 | Cooperative Bank of Kenya Ltd | 0.128326 | 0 | 0.0093583 | 0.033248 | 0 |
| 2006 | 3 | African Banking Corporation Ltd | 0 | 0 | 0 | 0 | 0 |
| 2007 | 3 | African Banking Corporation Ltd | 0 | 0 | 0 | 0 | 0 |
| 2008 | 3 | African Banking Corporation Ltd | 0 | 0 | 0 | 0 | 0 |
| 2009 | 3 | African Banking Corporation Ltd | 0 | 0 | 0 | 0 | 0 |
| 2010 | 3 | African Banking Corporation Ltd | 0.228417 | 0.0322621 | 0.0255356 | 0.004983 | 0.001744 |
| 2011 | 3 | African Banking Corporation Ltd | 0.174047 | 0 | 0 | 0 | 0 |
| 2012 | 3 | African Banking Corporation Ltd | 0.148238 | 0.0225972 | 0.0191435 | 0.003059 | 0.000395 |
| 2013 | 3 | African Banking Corporation Ltd | 0.199374 | 0.0254112 | 0.0159255 | 0.004264 | 0.005222 |
| 2014 | 3 | African Banking Corporation Ltd | 0.078982 | 0.0370614 | 0.0208333 | 0.011842 | 0.004386 |
| 2015 | 3 | African Banking Corporation Ltd | 0.077612 | 0.0302118 | 0.01661 | 0.005755 | 0.007847 |
| 2006 | 4 | Bank of Africa Ltd | -0.03884 | 0 | 0.0076862 | 0 | 0 |
| 2007 | 4 | Bank of Africa Ltd | 0.047069 | 0 | 0.0085171 | 0.002402 | 0 |
| 2008 | 4 | Bank of Africa Ltd | 0.028061 | 0.0162189 | 0.011236 | 0.004885 | 9.77E-05 |
| 2009 | 4 | Bank of Africa Ltd | 0.034108 | 0.0146395 | 0.0096868 | 0.003277 | 0.001675 |
| 2010 | 4 | Bank of Africa Ltd | 0.084725 | 0.0161068 | 0.0078744 | 0.005471 | 0.002761 |
| 2011 | 4 | Bank of Africa Ltd | 0.079577 | 0.0136082 | 0.0052698 | 0.005737 | 0.002602 |
| 2012 | 4 | Bank of Africa Ltd | 0.072929 | 0.0170413 | 0.0141066 | 0.002535 | 0.0004 |
| 2013 | 4 | Bank of Africa Ltd | 0.070189 | 0.0304444 | 0.0186093 | 0.003453 | 0.008382 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2014 | 4 | Bank of Africa Ltd | 0.028554 | 0.0370726 | 0.021864 | 0.014585 | 0.000624 |
| 2015 | 4 | Bank of Africa Ltd | 0.088585 | 0.1698458 | 0.0943147 | 0.073494 | 0.002037 |
| 2006 | 5 | Bank of Baroda | 0 | 0 | 0 | 0 | 0 |
| 2007 | 5 | Bank of Baroda | 0 | 0 | 0 | 0 | 0 |
| 2008 | 5 | Bank of Baroda | 0 | 0 | 0 | 0 | 0 |
| 2009 | 5 | Bank of Baroda | 0 | 0 | 0 | 0 | 0 |
| 2010 | 5 | Bank of Baroda | 0 | 0 | 0 | 0 | 0 |
| 2011 | 5 | Bank of Baroda | 0.44036 | 0.0645111 | 0.0276327 | 0.010395 | 0.026484 |
| 2012 | 5 | Bank of Baroda | 0.282256 | 0.0242678 | 0.0163762 | 0.000365 | 0.007527 |
| 2013 | 5 | Bank of Baroda | 0.361504 | 0.0207821 | 0.0176012 | 0.003011 | 0.00017 |
| 2014 | 5 | Bank of Baroda | 0.313385 | 0.0206073 | 0.0174017 | 0.002994 | 0.000211 |
| 2015 | 5 | Bank of Baroda | 0.286684 | 0.0580953 | 0.0329164 | 0.019376 | 0.005803 |
| 2006 | 6 | Commercial Bank of Africa Ltd | 0 | 0 | 0 | 0 | 0 |
| 2007 | 6 | Commercial Bank of Africa Ltd | 0 | 0 | 0 | 0 | 0 |
| 2008 | 6 | Commercial Bank of Africa Ltd | 0 | 0 | 0 | 0.009286 | 0 |
| 2009 | 6 | Commercial Bank of Africa Ltd | 0 | 0 | 0 | 0.007628 | 0 |
| 2010 | 6 | Commercial Bank of Africa Ltd | 0 | 0 | 0 | 0.020651 | 0 |
| 2011 | 6 | Commercial Bank of Africa Ltd | 0.21246 | 0.0491724 | 0.0381091 | 0.006545 | 0.004518 |
| 2012 | 6 | Commercial Bank of Africa Ltd | 0.228259 | 0.0357681 | 0.0259601 | 0.003257 | 0.006551 |
| 2013 | 6 | Commercial Bank of Africa Ltd | 0.210083 | 0.0584499 | 0.0279283 | 0.00711 | 0.023412 |
| 2014 | 6 | Commercial Bank of Africa Ltd | 0.040102 | 0.0740614 | 0.0307001 | 0.017337 | 0.026025 |
| 2015 | 6 | Commercial Bank of Africa Ltd | 0 | 0 | 0 | 0 | 0 |
| 2006 | 7 | Consolidated Bank of Kenya Ltd | 0.04503 | 0.3191231 | 0.2119367 | 0.031669 | 0.075518 |
| 2007 | 7 | Consolidated Bank of Kenya Ltd | 0.089 | 0.2432071 | 0.1492205 | 0.044098 | 0.049889 |
| 2008 | 7 | Consolidated Bank of Kenya Ltd | 0.079021 | 0.1625455 | 0.1236364 | 0.022909 | 0.016 |
| 2009 | 7 | Consolidated Bank of Kenya Ltd | 0.131118 | 0.1365046 | 0.0886763 | 0.02637 | 0.021458 |
| 2010 | 7 | Consolidated Bank of Kenya Ltd | 0.120574 | 0.091781 | 0.0598644 | 0.019348 | 0.012568 |
| 2011 | 7 | Consolidated Bank of Kenya Ltd | 0.032568 | 0.052191 | 0.0414266 | 0.008807 | 0.001957 |
| 2012 | 7 | Consolidated Bank of Kenya Ltd | -0.02414 | 0.0662896 | 0.0402898 | 0.016572 | 0.009427 |
| 2013 | 7 | Consolidated Bank of Kenya Ltd | 0.020761 | 0.1122063 | 0.0684477 | 0.037402 | 0.006357 |
| 2014 | 7 | Consolidated Bank of Kenya Ltd | -0.0579 | 0.1778116 | 0.119518 | 0.048524 | 0.00977 |
| 2015 | 7 | Consolidated Bank of Kenya Ltd | 0 | 0 | 0 | 0 | 0 |
| 2006 | 8 | Diamond Trust Bank Kenya Ltd | 0 | 0 | 0 | 0 | 0 |
| 2007 | 8 | Diamond Trust Bank Kenya Ltd | 0 | 0 | 0 | 0 | 0 |
| 2008 | 8 | Diamond Trust Bank Kenya Ltd | 0 | 0 | 0 | 0 | 0 |
| 2009 | 8 | Diamond Trust Bank Kenya Ltd | 0.236637 | 0.0269282 | 0.015969 | 0.007105 | 0.003854 |
| 2010 | 8 | Diamond Trust Bank Kenya Ltd | 0.333955 | 0.0346664 | 0.0227858 | 0.010866 | 0.001014 |
| 2011 | 8 | Diamond Trust Bank Kenya Ltd | 0.394368 | 0.0328204 | 0.0229182 | 0.008247 | 0.001655 |
| 2012 | 8 | Diamond Trust Bank Kenya Ltd | 0.428013 | 0.0417755 | 0.0275121 | 0.011219 | 0.003044 |
| 2013 | 8 | Diamond Trust Bank Kenya Ltd | 0.381759 | 0.0380369 | 0.0283023 | 0.008094 | 0.001641 |
| 2014 | 8 | Diamond Trust Bank Kenya Ltd | 0.329142 | 0.0352841 | 0.0264213 | 0.006182 | 0.002681 |
| 2015 | 8 | Diamond Trust Bank Kenya Ltd | 0.353251 | 0.0441693 | 0.0299024 | 0.01211 | 0.002157 |
| 2006 | 9 | Equity Bank Ltd | 0 | 0 | 0 | 0 | 0 |
| 2007 | 9 | Equity Bank Ltd | 0 | 0 | 0 | 0 | 0 |
| 2008 | 9 | Equity Bank Ltd | 0 | 0 | 0 | 0 | 0 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2009 | 9 | Equity Bank Ltd | 0 | 0 | 0 | 0 | 0 |
| 2010 | 9 | Equity Bank Ltd | 0.197131 | 0.0918635 | 0.0558614 | 0.024316 | 0.011686 |
| 2011 | 9 | Equity Bank Ltd | 0.279055 | 0.0526871 | 0.0285531 | 0.014312 | 0.009822 |
| 2012 | 9 | Equity Bank Ltd | 0.269292 | 0.0560682 | 0.0296112 | 0.01185 | 0.014607 |
| 2013 | 9 | Equity Bank Ltd | 0.300282 | 0.0536522 | 0.0240309 | 0.014011 | 0.01561 |
| 2014 | 9 | Equity Bank Ltd | 0.296303 | 0.0767101 | 0.0348742 | 0.024345 | 0.017491 |
| 2015 | 9 | Equity Bank Ltd | 0.287157 | 0.0596498 | 0.025462 | 0.019263 | 0.014925 |
| 2006 | 10 | Family Bank Ltd | 0 | 0 | 0 | 0 | 0 |
| 2007 | 10 | Family Bank Ltd | 0 | 0 | 0 | 0 | 0 |
| 2008 | 10 | Family Bank Ltd | 0.611885 | 0.1093564 | 0.0545084 | 0.016132 | 0.038716 |
| 2009 | 10 | Family Bank Ltd | 0.586357 | 0.0852117 | 0.0518567 | 0.009251 | 0.024104 |
| 2010 | 10 | Family Bank Ltd | 0.151086 | 0.133521 | 0.070402 | 0.03156 | 0.03156 |
| 2011 | 10 | Family Bank Ltd | 0.155167 | 0.1104579 | 0.0691893 | 0.020634 | 0.020634 |
| 2012 | 10 | Family Bank Ltd | 0.203458 | 0.1808261 | 0.0993396 | 0.036098 | 0.045388 |
| 2013 | 10 | Family Bank Ltd | 0.268521 | 0.0864976 | 0.0353577 | 0.011488 | 0.039652 |
| 2014 | 10 | Family Bank Ltd | 0.342149 | 0.0465656 | 0.0350956 | 0.010257 | 0.001213 |
| 2015 | 10 | Family Bank Ltd | 0.27294 | 0.0314039 | 0.0275545 | 0.003778 | 7.16E-05 |
| 2006 | 11 | Giro Commercial Bank Ltd | 0 | 0 | 0 | 0 | 0 |
| 2007 | 11 | Giro Commercial Bank Ltd | 0 | 0 | 0 | 0 | 0 |
| 2008 | 11 | Giro Commercial Bank Ltd | 0 | 0 | 0 | 0 | 0 |
| 2009 | 11 | Giro Commercial Bank Ltd | 0.139581 | 0.047257 | 0.0293319 | 0.003531 | 0.014394 |
| 2010 | 11 | Giro Commercial Bank Ltd | 0.168114 | 0.046422 | 0.0277721 | 0.005676 | 0.012974 |
| 2011 | 11 | Giro Commercial Bank Ltd | 0.154936 | 0.0308176 | 0.0174528 | 0.00283 | 0.010535 |
| 2012 | 11 | Giro Commercial Bank Ltd | 0.071662 | 0.1699584 | 0.0173945 | 0.147128 | 0.005436 |
| 2013 | 11 | Giro Commercial Bank Ltd | 0.168015 | 0.0550087 | 0.0127389 | 0.001013 | 0.041256 |
| 2014 | 11 | Giro Commercial Bank Ltd | 0.154753 | 0.0342147 | 0.0085537 | 0.002203 | 0.023458 |
| 2015 | 11 | Giro Commercial Bank Ltd | 0.164411 | 0.0212287 | 0.0061113 | 0.00193 | 0.013187 |
| 2006 | 12 | Investment & Mortgages Bank Ltd | 0.292839 | 0.034009 | 0.0242824 | 0.005237 | 0.004489 |
| 2007 | 12 | Investment & Mortgages Bank Ltd | 0.267809 | 0.0319039 | 0.021755 | 0.006506 | 0.003643 |
| 2008 | 12 | Investment & Mortgages Bank Ltd | -0.25864 | 0.0764064 | 0.0648195 | 0.005575 | 0.006012 |
| 2009 | 12 | Investment & Mortgages Bank Ltd | 0.210083 | 0.0331037 | 0.0100722 | 0.003478 | 0.019554 |
| 2010 | 12 | Investment & Mortgages Bank Ltd | 0.29369 | 0.0301649 | 0.0093519 | 0.005969 | 0.014844 |
| 2011 | 12 | Investment & Mortgages Bank Ltd | 0.347024 | 0.0148874 | 0.0089505 | 0.003752 | 0.002185 |
| 2012 | 12 | Investment & Mortgages Bank Ltd | 0.31726 | 0.0102465 | 0.0071953 | 0.000683 | 0.002368 |
| 2013 | 12 | Investment & Mortgages Bank Ltd | 0.327486 | 0.0179361 | 0.0117107 | 0.005137 | 0.001088 |
| 2014 | 12 | Investment & Mortgages Bank Ltd | 0.299545 | 0.0140242 | 0.0055703 | 0.007745 | 0.000709 |
| 2015 | 12 | Investment & Mortgages Bank Ltd | 0.301691 | 0.009928 | 0.0030193 | 0.006047 | 0.000861 |
| 2006 | 13 | Imperial Bank Ltd | 0 | 0 | 0.0589527 | 0.008277 | 0 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2007 | 13 | Imperial Bank Ltd | 0 | 0 | 0.0432586 | 0.005958 | 0 |
| 2008 | 13 | Imperial Bank Ltd | 0 | 0.0482261 | 0.0384701 | 0.004878 | 0.004878 |
| 2009 | 13 | Imperial Bank Ltd | 0 | 0.0493317 | 0.0380806 | 0.005577 | 0.005674 |
| 2010 | 13 | Imperial Bank Ltd | 0 | 0 | 0 | 0.011298 | 0 |
| 2011 | 13 | Imperial Bank Ltd | 0 | 0.0703749 | 0.0432978 | 0.006578 | 0.020499 |
| 2012 | 13 | Imperial Bank Ltd | 0 | 0 | 0.0387 | 0.007327 | 0 |
| 2013 | 13 | Imperial Bank Ltd | 0 | 0 | 0 | 0 | 0 |
| 2014 | 13 | Imperial Bank Ltd | 0 | 0 | 0 | 0 | 0 |
| 2015 | 13 | Imperial Bank Ltd | 0 | 0 | 0 | 0 | 0 |
| 2006 | 14 | Kenya Commercial Bank Ltd | 0 | 0 | 0 | 0 | 0 |
| 2007 | 14 | Kenya Commercial Bank Ltd | 0 | 0 | 0 | 0 | 0 |
| 2008 | 14 | Kenya Commercial Bank Ltd | 0.283934 | 0 | 0.0976669 | 0.015055 | 0 |
| 2009 | 14 | Kenya Commercial Bank Ltd | 0.250417 | 0.1802319 | 0.1215188 | 0.005952 | 0.052761 |
| 2010 | 14 | Kenya Commercial Bank Ltd | 0.185668 | 0.1587774 | 0.0984586 | 0.014475 | 0.045843 |
| 2011 | 14 | Kenya Commercial Bank Ltd | 0.238645 | 0.0974417 | 0.0615326 | 0.009541 | 0.026368 |
| 2012 | 14 | Kenya Commercial Bank Ltd | 0.246278 | 0.1233322 | 0.0696859 | 0.017745 | 0.035901 |
| 2013 | 14 | Kenya Commercial Bank Ltd | 0.211384 | 0.1268789 | 0.0844323 | 0.012757 | 0.02969 |
| 2014 | 14 | Kenya Commercial Bank Ltd | 0.210157 | 0.1158276 | 0.064864 | 0.017827 | 0.033137 |
| 2015 | 14 | Kenya Commercial Bank Ltd | 0.27567 | 0 | 0 | 0.013623 | 0 |
| 2006 | 15 | National Bank of Kenya Ltd | 0 | 0 | 0 | 0 | 0 |
| 2007 | 15 | National Bank of Kenya Ltd | 0 | 0 | 0 | 0 | 0 |
| 2008 | 15 | National Bank of Kenya Ltd | 0.22142 | 0.4065922 | 0.1603352 | 0.040335 | 0.205922 |
| 2009 | 15 | National Bank of Kenya Ltd | 0.176268 | 0.1292187 | 0.0679538 | 0.01087 | 0.050395 |
| 2010 | 15 | National Bank of Kenya Ltd | 0.211057 | 0.07417 | 0.0328632 | 0.017367 | 0.02394 |
| 2011 | 15 | National Bank of Kenya Ltd | 0.213808 | 0.0725737 | 0.0305686 | 0.024654 | 0.017351 |
| 2012 | 15 | National Bank of Kenya Ltd | 0.057052 | 0 | 0.0558456 | 0.025577 | 0 |
| 2013 | 15 | National Bank of Kenya Ltd | 0.097677 | 0 | 0.0472881 | 0.007254 | 0 |
| 2014 | 15 | National Bank of Kenya Ltd | 0.148625 | 0 | 0.0365016 | 0.007998 | 0 |
| 2015 | 15 | National Bank of Kenya Ltd | 0.051465 | 0.1445364 | 0.0533752 | 0.05485 | 0.036311 |
| 2006 | 16 | National Industrial Credit Bank Ltd | 0.207351 | 0 | 0 | 0.008027 | 0.016717 |
| 2007 | 16 | National Industrial Credit Bank Ltd | 0.185359 | 0.0295826 | 0.0240893 | 0.004503 | 0.000991 |
| 2008 | 16 | National Industrial Credit Bank Ltd | 0.193234 | 0.0310477 | 0.0236029 | 0.006477 | 0.000968 |
| 2009 | 16 | National Industrial Credit Bank Ltd | 0.211047 | 0.0523822 | 0.0373412 | 0.014241 | 0.0008 |
| 2010 | 16 | National Industrial Credit Bank Ltd | 0.281426 | 0.0444373 | 0.0364381 | 0.007754 | 0.000245 |
| 2011 | 16 | National Industrial Credit Bank Ltd | 0.275775 | 0.0359564 | 0.0305524 | 0.005245 | 0.000159 |
| 2012 | 16 | National Industrial Credit Bank Ltd | 0.239977 | 0.0316047 | 0.0246016 | 0.003606 | 0.003397 |
| 2013 | 16 | National Industrial Credit Bank Ltd | 0.325626 | 0.0467344 | 0.0330806 | 0.013079 | 0.000575 |
| 2014 | 16 | National Industrial Credit Bank Ltd | 0.176348 | 0.0336863 | 0.0272931 | 0.003271 | 0.003122 |
| 2015 | 16 | National Industrial Credit Bank | 0.201831 | 0.0527312 | 0.0255632 | 0.014408 | 0.01276 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | Ltd | | | | | |
| 2006 | 17 | Oriental Commercial Bank Ltd | 0 | 0 | 0 | 0 | 0 |
| 2007 | 17 | Oriental Commercial Bank Ltd | 0 | 0 | 0 | 0 | 0 |
| 2008 | 17 | Oriental Commercial Bank Ltd | 0 | 0 | 0 | 0 | 0 |
| 2009 | 17 | Oriental Commercial Bank Ltd | -0.07715 | 0.2549408 | 0.1488801 | 0.005929 | 0.100132 |
| 2010 | 17 | Oriental Commercial Bank Ltd | -0.01414 | 0.1236735 | 0.0657143 | 0.020408 | 0.037551 |
| 2011 | 17 | Oriental Commercial Bank Ltd | 0.012056 | 0.0864903 | 0.0571837 | 0.016083 | 0.013224 |
| 2012 | 17 | Oriental Commercial Bank Ltd | 0.045127 | 0.0486674 | 0.0466396 | 0.000869 | 0.001159 |
| 2013 | 17 | Oriental Commercial Bank Ltd | 0.108389 | 0.04114 | 0.0314746 | 0.00347 | 0.006196 |
| 2014 | 17 | Oriental Commercial Bank Ltd | 0.025535 | 0 | 0.0365247 | 0.012535 | 0 |
| 2015 | 17 | Oriental Commercial Bank Ltd | -0.00511 | 0.0564347 | 0.0127741 | 0.016587 | 0.027073 |
| 2006 | 18 | Paramount-Universal Bank Ltd | 0 | 0 | 0 | 0 | 0 |
| 2007 | 18 | Paramount-Universal Bank Ltd | 0 | 0 | 0 | 0 | 0 |
| 2008 | 18 | Paramount-Universal Bank Ltd | 0 | 0 | 0 | 0 | 0 |
| 2009 | 18 | Paramount-Universal Bank Ltd | 0 | 0 | 0 | 0 | 0 |
| 2010 | 18 | Paramount-Universal Bank Ltd | 0 | 0 | 0 | 0 | 0 |
| 2011 | 18 | Paramount-Universal Bank Ltd | 0 | 0 | 0 | 0 | 0 |
| 2012 | 18 | Paramount-Universal Bank Ltd | -0.04904 | 0.0587806 | 0.0554947 | 0.002921 | 0.000365 |
| 2013 | 18 | Paramount-Universal Bank Ltd | 0.08812 | 0.054401 | 0.049511 | 0.003973 | 0.000917 |
| 2014 | 18 | Paramount-Universal Bank Ltd | 0.069385 | 0.0411514 | 0.0386778 | 0.002249 | 0.000225 |
| 2015 | 18 | Paramount-Universal Bank Ltd | 0.165671 | 0.0333844 | 0.0177142 | 0.002044 | 0.013626 |
| 2006 | 19 | Standard Chartered Bank Ltd | 0 | 0 | 0 | 0.013417 | 0 |
| 2007 | 19 | Standard Chartered Bank Ltd | 0 | 0 | 0 | 0.005021 | 0 |
| 2008 | 19 | Standard Chartered Bank Ltd | 0.330527 | 0.0477072 | 0.0294491 | 0.008137 | 0.010121 |
| 2009 | 19 | Standard Chartered Bank Ltd | 0.438443 | 0.0491762 | 0.0268547 | 0.00817 | 0.014151 |
| 2010 | 19 | Standard Chartered Bank Ltd | 0.447063 | 0.0347084 | 0.0205036 | 0.00539 | 0.008815 |
| 2011 | 19 | Standard Chartered Bank Ltd | 0.364368 | 0.0240512 | 0.0135397 | 0.004229 | 0.006282 |
| 2012 | 19 | Standard Chartered Bank Ltd | 0.374932 | 0.0260796 | 0.0160651 | 0.006251 | 0.003763 |
| 2013 | 19 | Standard Chartered Bank Ltd | 0.363413 | 0.0270223 | 0.0173758 | 0.005933 | 0.003713 |
| 2014 | 19 | Standard Chartered Bank Ltd | 0.324603 | 0.0368877 | 0.0279232 | 0.008291 | 0.000673 |
| 2015 | 19 | Standard Chartered Bank Ltd | 0.272512 | 0 | 0.0671264 | 0.037202 | 0 |
| 2006 | 20 | Transnational Bank Ltd | 0 | 0 | 0 | 0 | 0 |
| 2007 | 20 | Transnational Bank Ltd | 0 | 0 | 0 | 0 | 0 |
| 2008 | 20 | Transnational Bank Ltd | 0 | 0 | 0 | 0 | 0 |
| 2009 | 20 | Transnational Bank Ltd | 0.06076 | 0.1578133 | 0.1289324 | 0.017019 | 0.011862 |
| 2010 | 20 | Transnational Bank Ltd | 0.068636 | 0.1739944 | 0.0935454 | 0.028531 | 0.051918 |
| 2011 | 20 | Transnational Bank Ltd | 0.134999 | 0.0994559 | 0.0767836 | 0.019347 | 0.003325 |
| 2012 | 20 | Transnational Bank Ltd | 0.087689 | 0.0840019 | 0.0589901 | 0.012034 | 0.012978 |
| 2013 | 20 | Transnational Bank Ltd | 0.081966 | 0.0822317 | 0.062014 | 0.016913 | 0.003305 |
| 2014 | 20 | Transnational Bank Ltd | 0.114628 | 0.0748877 | 0.0540855 | 0.015144 | 0.005658 |
| 2015 | 20 | Transnational Bank Ltd | 0.1198 | 0.0779065 | 0.064521 | 0.011581 | 0.001805 |

Source: CBK 2006,2007,2008,2009,2010,2011,2012,2013,2014,2015

Table 4.11

*ICR-based Capital Allocation Variables and RORAC*

| Year | ID | Bank | RORAC | Capital Allocation ratio | Tier1 ratio | Total capital ratio | Debt WRA ratio |
|---|---|---|---|---|---|---|---|
| 2006 | 1 | Barclays Bank Of Kenya Ltd | 0.38966 | 1.1162436 | 0.121245 | 0.121245 | 0.8737534 |
| 2007 | 1 | Barclays Bank Of Kenya Ltd | 0.273857 | 1.1587851 | 0.13027 | 0.139922 | 0.8885929 |
| 2008 | 1 | Barclays Bank Of Kenya Ltd | 0.223914 | 1.2160169 | 0.150179 | 0.187461 | 0.8783766 |
| 2009 | 1 | Barclays Bank Of Kenya Ltd | 0.235102 | 1.2829655 | 0.191457 | 0.238341 | 0.8531675 |
| 2010 | 1 | Barclays Bank Of Kenya Ltd | 0.246532 | 1.3948554 | 0.265824 | 0.311527 | 0.8175043 |
| 2011 | 1 | Barclays Bank Of Kenya Ltd | 0.273008 | 1.3442172 | 0.24104 | 0.278135 | 0.8250424 |
| 2012 | 1 | Barclays Bank Of Kenya Ltd | 0.304467 | 1.3245239 | 0.226922 | 0.257682 | 0.8399197 |
| 2013 | 1 | Barclays Bank Of Kenya Ltd | 0.284237 | 1.1824158 | 0.165915 | 0.173084 | 0.8434161 |
| 2014 | 1 | Barclays Bank Of Kenya Ltd | 0.278772 | 1.2013867 | 0.184543 | 0.186676 | 0.8301681 |
| 2015 | 1 | Barclays Bank Of Kenya Ltd | 0.256548 | 1.1770818 | 0.158035 | 0.183927 | 0.8351192 |
| 2006 | 2 | Cooperative Bank of Kenya Ltd | 0.247473 | 1.1947495 | 0.132931 | 0.145614 | 0.9162044 |
| 2007 | 2 | Cooperative Bank of Kenya Ltd | 0.303483 | 1.1884249 | 0.142184 | 0.145133 | 0.9011083 |
| 2008 | 2 | Cooperative Bank of Kenya Ltd | 0.163592 | 1.2918438 | 0.220072 | 0.234781 | 0.8369907 |
| 2009 | 2 | Cooperative Bank of Kenya Ltd | 0.166473 | 1.2661101 | 0.203255 | 0.210056 | 0.8527982 |
| 2010 | 2 | Cooperative Bank of Kenya Ltd | 0.218199 | 1.1935583 | 0.161562 | 0.165437 | 0.86656 |
| 2011 | 2 | Cooperative Bank of Kenya Ltd | -0.43344 | 1.2001003 | 0.160408 | 0.164175 | 0.8755169 |
| 2012 | 2 | Cooperative Bank of Kenya Ltd | 0.155424 | 1.2941031 | 0.202594 | 0.237914 | 0.8535954 |
| 2013 | 2 | Cooperative Bank of Kenya Ltd | -0.17269 | 1.2089077 | 0.156582 | 0.210551 | 0.841775 |
| 2014 | 2 | Cooperative Bank of Kenya Ltd | 0.115539 | 1.2123051 | 0.146044 | 0.216497 | 0.8497632 |
| 2015 | 2 | Cooperative Bank of Kenya Ltd | 0.128326 | 1.2137879 | 0.145178 | 0.21256 | 0.8560497 |
| 2006 | 3 | African Banking Corporation Ltd | 0 | 0 | 0.17353 | 0.175343 | 0 |
| 2007 | 3 | African Banking Corporation Ltd | 0 | 0 | 0.170933 | 0.171568 | 0 |
| 2008 | 3 | African Banking Corporation Ltd | 0 | 0 | 0.212591 | 0.213478 | 0 |
| 2009 | 3 | African Banking Corporation Ltd | 0 | 0 | 0.205802 | 0.20689 | 0 |
| 2010 | 3 | African Banking Corporation Ltd | 0.228417 | 1.2340374 | 0.193241 | 0.201329 | 0.8394678 |
| 2011 | 3 | African Banking Corporation Ltd | 0.174047 | 1.2074428 | 0.168501 | 0.175985 | 0.8629568 |
| 2012 | 3 | African Banking Corporation Ltd | 0.148238 | 1.1892847 | 0.136187 | 0.143969 | 0.909129 |
| 2013 | 3 | African Banking Corporation Ltd | 0.199374 | 1.2026888 | 0.142731 | 0.150696 | 0.9092622 |
| 2014 | 3 | African Banking Corporation Ltd | 0.078982 | 1.1817676 | 0.112775 | 0.172263 | 0.8967302 |
| 2015 | 3 | African Banking Corporation Ltd | 0.077612 | 1.1716856 | 0.119154 | 0.164554 | 0.8879771 |
| 2006 | 4 | Bank of Africa Ltd | -0.03884 | 0.9765091 | 0.160465 | 0.169069 | 0.6469759 |
| 2007 | 4 | Bank of Africa Ltd | 0.047069 | 1.0699568 | 0.13587 | 0.144022 | 0.7900655 |
| 2008 | 4 | Bank of Africa Ltd | 0.028061 | 1.5457127 | 0.1242 | 0.131955 | 1.2895581 |
| 2009 | 4 | Bank of Africa Ltd | 0.034108 | 1.6236315 | 0.151644 | 0.159111 | 1.312876 |
| 2010 | 4 | Bank of Africa Ltd | 0.084725 | 1.4869218 | 0.107385 | 0.151662 | 1.227874 |
| 2011 | 4 | Bank of Africa Ltd | 0.079577 | 1.5052462 | 0.126748 | 0.160034 | 1.218464 |
| 2012 | 4 | Bank of Africa Ltd | 0.072929 | 1.1995388 | 0.103263 | 0.131633 | 0.9646432 |

| 2013 | 4 | Bank of Africa Ltd | 0.070189 | 1.3561145 | 0.109351 | 0.1272 | 1.1195641 |
|---|---|---|---|---|---|---|---|
| 2014 | 4 | Bank of Africa Ltd | 0.028554 | 1.1498992 | 0.1179 | 0.159209 | 0.8727898 |
| 2015 | 4 | Bank of Africa Ltd | 0.088585 | 1.1733428 | 0.132063 | 0.163913 | 0.8773672 |
| 2006 | 5 | Bank of Baroda | 0 | 0.5504468 | 0.275223 | 0.275223 | 0 |
| 2007 | 5 | Bank of Baroda | 0 | 0.3787136 | 0.189357 | 0.189357 | 0 |
| 2008 | 5 | Bank of Baroda | 0 | 0.3823691 | 0.185311 | 0.197058 | 0 |
| 2009 | 5 | Bank of Baroda | 0 | 0.4021349 | 0.19658 | 0.205555 | 0 |
| 2010 | 5 | Bank of Baroda | 0 | 0.4617215 | 0.22566 | 0.236062 | 0 |
| 2011 | 5 | Bank of Baroda | 0.44036 | 1.2841033 | 0.204658 | 0.213965 | 0.8654805 |
| 2012 | 5 | Bank of Baroda | 0.282256 | 1.3365631 | 0.225923 | 0.235462 | 0.8751788 |
| 2013 | 5 | Bank of Baroda | 0.361504 | 1.2796919 | 0.209092 | 0.216115 | 0.8544846 |
| 2014 | 5 | Bank of Baroda | 0.313385 | 1.3153503 | 0.232844 | 0.241809 | 0.8406974 |
| 2015 | 5 | Bank of Baroda | 0.286684 | 1.3689249 | 0.262841 | 0.271445 | 0.8346387 |
| 2006 | 6 | Commercial Bank of Africa Ltd | 0 | 0 | 0.148399 | 0.152855 | 0 |
| 2007 | 6 | Commercial Bank of Africa Ltd | 0 | 0 | 0.13467 | 0.141016 | 0 |
| 2008 | 6 | Commercial Bank of Africa Ltd | 0 | 0 | 0.124457 | 0.130223 | 0 |
| 2009 | 6 | Commercial Bank of Africa Ltd | 0 | 0 | 0.121106 | 0.128461 | 0 |
| 2010 | 6 | Commercial Bank of Africa Ltd | 0 | 0 | 0.137848 | 0.145068 | 0 |
| 2011 | 6 | Commercial Bank of Africa Ltd | 0.21246 | 1.293696 | 0.13861 | 0.145432 | 1.009654 |
| 2012 | 6 | Commercial Bank of Africa Ltd | 0.228259 | 1.3653282 | 0.155124 | 0.16073 | 1.049474 |
| 2013 | 6 | Commercial Bank of Africa Ltd | 0.210083 | 1.30909 | 0.128029 | 0.134801 | 1.04626 |
| 2014 | 6 | Commercial Bank of Africa Ltd | 0.040102 | 1.3107606 | 0.113707 | 0.179114 | 1.01794 |
| 2015 | 6 | Commercial Bank of Africa Ltd | 0 | 0 | 0.121611 | 0.179234 | 0 |
| 2006 | 7 | Consolidated Bank of Kenya Ltd | 0.04503 | 1.0686551 | 0.192179 | 0.214525 | 0.6619512 |
| 2007 | 7 | Consolidated Bank of Kenya Ltd | 0.089 | 0.9807325 | 0.168843 | 0.188744 | 0.6231454 |
| 2008 | 7 | Consolidated Bank of Kenya Ltd | 0.079021 | 1.0447134 | 0.170769 | 0.18641 | 0.6875339 |
| 2009 | 7 | Consolidated Bank of Kenya Ltd | 0.131118 | 1.089251 | 0.14305 | 0.156776 | 0.789425 |
| 2010 | 7 | Consolidated Bank of Kenya Ltd | 0.120574 | 1.1000285 | 0.109202 | 0.131871 | 0.858956 |
| 2011 | 7 | Consolidated Bank of Kenya Ltd | 0.032568 | 1.1421202 | 0.109232 | 0.126569 | 0.9063194 |
| 2012 | 7 | Consolidated Bank of Kenya Ltd | -0.02414 | 1.1768212 | 0.114044 | 0.150273 | 0.9125049 |
| 2013 | 7 | Consolidated Bank of Kenya Ltd | 0.020761 | 1.1089653 | 0.074907 | 0.108139 | 0.9259193 |
| 2014 | 7 | Consolidated Bank of Kenya Ltd | -0.0579 | 1.0887092 | 0.082807 | 0.109902 | 0.8960005 |
| 2015 | 7 | Consolidated Bank of Kenya Ltd | 0 | 0 | 0.077716 | 0.093889 | 0 |
| 2006 | 8 | Diamond Trust Bank Kenya Ltd | 0 | 0 | 0.172906 | 0.206449 | 0 |
| 2007 | 8 | Diamond Trust Bank Kenya Ltd | 0 | 0 | 0.191044 | 0.191401 | 0 |
| 2008 | 8 | Diamond Trust Bank Kenya Ltd | 0 | 0 | 0.156243 | 0.197714 | 0 |
| 2009 | 8 | Diamond Trust Bank Kenya Ltd | 0.236637 | 1.5767606 | 0.153799 | 0.189721 | 1.23324 |
| 2010 | 8 | Diamond Trust Bank Kenya Ltd | 0.333955 | 1.5892193 | 0.15346 | 0.184351 | 1.251408 |
| 2011 | 8 | Diamond Trust Bank Kenya Ltd | 0.394368 | 1.5302002 | 0.142129 | 0.167847 | 1.220224 |
| 2012 | 8 | Diamond Trust Bank Kenya Ltd | 0.428013 | 1.6111966 | 0.176627 | 0.198388 | 1.236182 |
| 2013 | 8 | Diamond Trust Bank Kenya Ltd | 0.381759 | 1.6380067 | 0.176594 | 0.210483 | 1.250929 |
| 2014 | 8 | Diamond Trust Bank Kenya Ltd | 0.329142 | 1.6275356 | 0.168174 | 0.189493 | 1.269869 |
| 2015 | 8 | Diamond Trust Bank Kenya Ltd | 0.353251 | 1.5471274 | 0.148417 | 0.176896 | 1.221814 |
| 2006 | 9 | Equity Bank Ltd | 0 | 0 | 0.138602 | 0.138602 | 0 |
| 2007 | 9 | Equity Bank Ltd | 0 | 0 | 0.456767 | 0.589157 | 0 |
| 2008 | 9 | Equity Bank Ltd | 0 | 0 | 0.292255 | 0.407708 | 0 |
| 2009 | 9 | Equity Bank Ltd | 0 | 0 | 0.236264 | 0.314887 | 0 |
| 2010 | 9 | Equity Bank Ltd | 0.197131 | 1.3633251 | 0.219492 | 0.278839 | 0.8649936 |
| 2011 | 9 | Equity Bank Ltd | 0.279055 | 1.2859892 | 0.153581 | 0.216648 | 0.9157599 |
| 2012 | 9 | Equity Bank Ltd | 0.269292 | 1.427406 | 0.198608 | 0.300962 | 0.9278364 |
| 2013 | 9 | Equity Bank Ltd | 0.300282 | 1.3707319 | 0.185534 | 0.235666 | 0.9495327 |
| 2014 | 9 | Equity Bank Ltd | 0.296303 | 1.3420622 | 0.151696 | 0.177091 | 1.013276 |
| 2015 | 9 | Equity Bank Ltd | 0.287157 | 1.3516773 | 0.146425 | 0.162487 | 1.042765 |
| 2006 | 10 | Family Bank Ltd | 0 | 0 | 0 | 0 | 0 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2007 | 10 | Family Bank Ltd | 0 | 0 | 0.220512 | 0.222244 | 0 |
| 2008 | 10 | Family Bank Ltd | 0.611885 | 1.2265309 | 0.189995 | 0.191208 | 0.8453281 |
| 2009 | 10 | Family Bank Ltd | 0.586357 | 1.2130166 | 0.182152 | 0.183097 | 0.8477673 |
| 2010 | 10 | Family Bank Ltd | 0.151086 | 1.3237474 | 0.238441 | 0.23916 | 0.8461462 |
| 2011 | 10 | Family Bank Ltd | 0.155167 | 1.2040931 | 0.161834 | 0.170096 | 0.8721637 |
| 2012 | 10 | Family Bank Ltd | 0.203458 | 1.2884203 | 0.218951 | 0.226868 | 0.8426012 |
| 2013 | 10 | Family Bank Ltd | 0.268521 | 1.2324855 | 0.180904 | 0.189417 | 0.8621641 |
| 2014 | 10 | Family Bank Ltd | 0.342149 | 1.2256356 | 0.195594 | 0.202643 | 0.8273988 |
| 2015 | 10 | Family Bank Ltd | 0.27294 | 1.1953421 | 0.153914 | 0.188626 | 0.8528021 |
| 2006 | 11 | Giro Commercial Bank Ltd | 0 | 0 | 0.159571 | 0.172093 | 0 |
| 2007 | 11 | Giro Commercial Bank Ltd | 0 | 0 | 0.158325 | 0.170756 | 0 |
| 2008 | 11 | Giro Commercial Bank Ltd | 0 | 0 | 0.175428 | 0.187869 | 0 |
| 2009 | 11 | Giro Commercial Bank Ltd | 0.139581 | 1.3165544 | 0.220946 | 0.233525 | 0.8620837 |
| 2010 | 11 | Giro Commercial Bank Ltd | 0.168114 | 1.3551389 | 0.237282 | 0.248793 | 0.8690639 |
| 2011 | 11 | Giro Commercial Bank Ltd | 0.154936 | 1.3291572 | 0.225293 | 0.237158 | 0.8667061 |
| 2012 | 11 | Giro Commercial Bank Ltd | 0.071662 | 1.4321954 | 0.281676 | 0.295145 | 0.8553746 |
| 2013 | 11 | Giro Commercial Bank Ltd | 0.168015 | 1.4141909 | 0.278009 | 0.289379 | 0.8468032 |
| 2014 | 11 | Giro Commercial Bank Ltd | 0.154753 | 1.3058676 | 0.228745 | 0.237777 | 0.8393449 |
| 2015 | 11 | Giro Commercial Bank Ltd | 0.164411 | 1.2917806 | 0.230456 | 0.240642 | 0.8206831 |
| 2006 | 12 | Investment & Mortgages Bank Ltd | 0.292839 | 0.9073774 | 0.128179 | 0.128602 | 0.6505956 |
| 2007 | 12 | Investment & Mortgages Bank Ltd | 0.267809 | 1.1292666 | 0.144048 | 0.144355 | 0.8408635 |
| 2008 | 12 | Investment & Mortgages Bank Ltd | -0.25864 | 1.2534758 | 0.109512 | 0.126218 | 1.017746 |
| 2009 | 12 | Investment & Mortgages Bank Ltd | 0.210083 | 1.4128268 | 0.169879 | 0.187088 | 1.05586 |
| 2010 | 12 | Investment & Mortgages Bank Ltd | 0.29369 | 1.5556563 | 0.188966 | 0.199165 | 1.1675251 |
| 2011 | 12 | Investment & Mortgages Bank Ltd | 0.347024 | 0.8497945 | 0.181161 | 0.192813 | 0.4758202 |
| 2012 | 12 | Investment & Mortgages Bank Ltd | 0.31726 | 0.8902379 | 0.169826 | 0.173362 | 0.5470498 |
| 2013 | 12 | Investment & Mortgages Bank Ltd | 0.327486 | 1.4060979 | 0.150729 | 0.190175 | 1.065194 |
| 2014 | 12 | Investment & Mortgages Bank Ltd | 0.299545 | 1.3057368 | 0.157694 | 0.188545 | 0.9594972 |
| 2015 | 12 | Investment & Mortgages Bank Ltd | 0.301691 | 1.2960391 | 0.170496 | 0.192099 | 0.9334443 |
| 2006 | 13 | Imperial Bank Ltd | 0 | 1.0449836 | 0.197814 | 0.197814 | 0.6493548 |
| 2007 | 13 | Imperial Bank Ltd | 0 | 1.1869735 | 0.178989 | 0.189076 | 0.8189085 |
| 2008 | 13 | Imperial Bank Ltd | 0 | 1.2273512 | 0.190056 | 0.201301 | 0.8359942 |
| 2009 | 13 | Imperial Bank Ltd | 0 | 1.2513839 | 0.203813 | 0.215391 | 0.8321803 |
| 2010 | 13 | Imperial Bank Ltd | 0 | 1.2541063 | 0.19925 | 0.211669 | 0.8431878 |
| 2011 | 13 | Imperial Bank Ltd | 0 | 1.3228189 | 0.201423 | 0.206258 | 0.9151378 |
| 2012 | 13 | Imperial Bank Ltd | 0 | 1.331163 | 0.181882 | 0.187067 | 0.9622145 |
| 2013 | 13 | Imperial Bank Ltd | 0 | 0 | 0.147056 | 0.149957 | 0 |
| 2014 | 13 | Imperial Bank Ltd | 0 | 0 | 0.151878 | 0.153497 | 0 |
| 2015 | 13 | Imperial Bank Ltd | 0 | 0 | 0 | 0 | 0 |
| 2006 | 14 | Kenya Commercial Bank Ltd | 0 | 0 | 0.157494 | 0.157494 | 0 |
| 2007 | 14 | Kenya Commercial Bank Ltd | 0 | 0 | 0.136101 | 0.136101 | 0 |
| 2008 | 14 | Kenya Commercial Bank Ltd | 0.283934 | 1.2442094 | 0.154527 | 0.154527 | 0.9351556 |
| 2009 | 14 | Kenya Commercial Bank Ltd | 0.250417 | 1.252937 | 0.148225 | 0.148225 | 0.9564877 |
| 2010 | 14 | Kenya Commercial Bank Ltd | 0.185668 | 1.4144547 | 0.231244 | 0.231631 | 0.9515794 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2011 | 14 | Kenya Commercial Bank Ltd | 0.238645 | 1.4196 | 0.199042 | 0.206905 | 1.013653 |
| 2012 | 14 | Kenya Commercial Bank Ltd | 0.246278 | 1.4728808 | 0.213039 | 0.227199 | 1.032643 |
| 2013 | 14 | Kenya Commercial Bank Ltd | 0.211384 | 1.4242337 | 0.186763 | 0.22453 | 1.012941 |
| 2014 | 14 | Kenya Commercial Bank Ltd | 0.210157 | 1.4808143 | 0.170578 | 0.210135 | 1.100101 |
| 2015 | 14 | Kenya Commercial Bank Ltd | 0.27567 | 1.3142403 | 0.141143 | 0.153644 | 1.019453 |
| 2006 | 15 | National Bank of Kenya Ltd | 0 | 0 | 0.114726 | 0.118813 | 0 |
| 2007 | 15 | National Bank of Kenya Ltd | 0 | 0 | 0.372183 | 0.386678 | 0 |
| 2008 | 15 | National Bank of Kenya Ltd | 0.22142 | 1.6032804 | 0.38585 | 0.399116 | 0.8183144 |
| 2009 | 15 | National Bank of Kenya Ltd | 0.176268 | 1.6653829 | 0.408529 | 0.42562 | 0.8312343 |
| 2010 | 15 | National Bank of Kenya Ltd | 0.211057 | 1.5586181 | 0.35489 | 0.369153 | 0.8345745 |
| 2011 | 15 | National Bank of Kenya Ltd | 0.213808 | 1.4187884 | 0.279298 | 0.291781 | 0.8477099 |
| 2012 | 15 | National Bank of Kenya Ltd | 0.057052 | 1.4013194 | 0.272732 | 0.284212 | 0.844375 |
| 2013 | 15 | National Bank of Kenya Ltd | 0.097677 | 1.3411158 | 0.227472 | 0.241502 | 0.8721417 |
| 2014 | 15 | National Bank of Kenya Ltd | 0.148625 | 1.1702604 | 0.128591 | 0.139321 | 0.9023481 |
| 2015 | 15 | National Bank of Kenya Ltd | 0.051465 | 1.182843 | 0.129992 | 0.139917 | 0.9129335 |
| 2006 | 16 | National Industrial Credit Bank Ltd | 0.207351 | 1.0621221 | 0.132985 | 0.141654 | 0.7874829 |
| 2007 | 16 | National Industrial Credit Bank Ltd | 0.185359 | 1.1380419 | 0.158361 | 0.167298 | 0.8123833 |
| 2008 | 16 | National Industrial Credit Bank Ltd | 0.193234 | 1.1430578 | 0.1421 | 0.151294 | 0.849664 |
| 2009 | 16 | National Industrial Credit Bank Ltd | 0.211047 | 1.1807051 | 0.145913 | 0.154833 | 0.8799594 |
| 2010 | 16 | National Industrial Credit Bank Ltd | 0.281426 | 1.226359 | 0.146396 | 0.155106 | 0.9248576 |
| 2011 | 16 | National Industrial Credit Bank Ltd | 0.275775 | 1.2391609 | 0.149831 | 0.158913 | 0.9304168 |
| 2012 | 16 | National Industrial Credit Bank Ltd | 0.239977 | 1.2329152 | 0.156011 | 0.164414 | 0.9124907 |
| 2013 | 16 | National Industrial Credit Bank Ltd | 0.325626 | 1.2128648 | 0.148162 | 0.148162 | 0.9165404 |
| 2014 | 16 | National Industrial Credit Bank Ltd | 0.176348 | 1.2453665 | 0.143661 | 0.208631 | 0.8930752 |
| 2015 | 16 | National Industrial Credit Bank Ltd | 0.201831 | 1.2394898 | 0.145215 | 0.204761 | 0.889514 |
| 2006 | 17 | Oriental Commercial Bank Ltd | 0 | 0 | 0.598222 | 0.598222 | 0 |
| 2007 | 17 | Oriental Commercial Bank Ltd | 0 | 0 | 0.603537 | 0.603537 | 0 |
| 2008 | 17 | Oriental Commercial Bank Ltd | 0 | 0 | 0.530516 | 0.542589 | 0 |
| 2009 | 17 | Oriental Commercial Bank Ltd | -0.07715 | 1.3988273 | 0.390707 | 0.403035 | 0.6050862 |
| 2010 | 17 | Oriental Commercial Bank Ltd | -0.01414 | 1.457751 | 0.347436 | 0.359986 | 0.7503291 |
| 2011 | 17 | Oriental Commercial Bank Ltd | 0.012056 | 1.4365046 | 0.340304 | 0.352662 | 0.7435388 |
| 2012 | 17 | Oriental Commercial Bank Ltd | 0.045127 | 1.3680903 | 0.28916 | 0.301599 | 0.7773312 |
| 2013 | 17 | Oriental Commercial Bank Ltd | 0.108389 | 1.3783693 | 0.291796 | 0.304213 | 0.7823605 |
| 2014 | 17 | Oriental Commercial Bank Ltd | 0.025535 | 1.2980931 | 0.245096 | 0.256229 | 0.7967677 |
| 2015 | 17 | Oriental Commercial Bank Ltd | -0.00511 | 1.4069558 | 0.329067 | 0.341543 | 0.7363465 |
| 2006 | 18 | Paramount-Universal Bank Ltd | 0 | 0 | 0.324726 | 0.324726 | 0 |
| 2007 | 18 | Paramount-Universal Bank Ltd | 0 | 0 | 0.324726 | 0.324726 | 0 |
| 2008 | 18 | Paramount-Universal Bank Ltd | 0 | 0 | 0.411765 | 0.419437 | 0 |
| 2009 | 18 | Paramount-Universal Bank Ltd | 0 | 0 | 0.330749 | 0.340439 | 0 |
| 2010 | 18 | Paramount-Universal Bank Ltd | 0 | 0 | 0.464048 | 0.47432 | 0 |
| 2011 | 18 | Paramount-Universal Bank Ltd | 0 | 0 | 0.527895 | 0.54 | 0 |
| 2012 | 18 | Paramount-Universal Bank Ltd | -0.04904 | 1.7813559 | 0.462761 | 0.475314 | 0.8432805 |
| 2013 | 18 | Paramount-Universal Bank Ltd | 0.08812 | 1.6685752 | 0.403226 | 0.418669 | 0.8466808 |
| 2014 | 18 | Paramount-Universal Bank Ltd | 0.069385 | 1.3653049 | 0.243153 | 0.254626 | 0.8675255 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2015 | 18 | Paramount-Universal Bank Ltd | 0.165671 | 1.3236609 | 0.228382 | 0.241298 | 0.8539806 |
| 2006 | 19 | Standard Chartered Bank Ltd | 0 | 0.99297 | 0.18324 | 0.188823 | 0.6209071 |
| 2007 | 19 | Standard Chartered Bank Ltd | 0 | 1.1926357 | 0.162844 | 0.167057 | 0.8627347 |
| 2008 | 19 | Standard Chartered Bank Ltd | 0.330527 | 1.1912541 | 0.157433 | 0.162039 | 0.8717826 |
| 2009 | 19 | Standard Chartered Bank Ltd | 0.438443 | 1.1661065 | 0.14121 | 0.144642 | 0.8802541 |
| 2010 | 19 | Standard Chartered Bank Ltd | 0.447063 | 1.138976 | 0.13906 | 0.143148 | 0.8567679 |
| 2011 | 19 | Standard Chartered Bank Ltd | 0.364368 | 1.1392143 | 0.123057 | 0.143029 | 0.8731286 |
| 2012 | 19 | Standard Chartered Bank Ltd | 0.374932 | 1.1853635 | 0.163006 | 0.180389 | 0.8419688 |
| 2013 | 19 | Standard Chartered Bank Ltd | 0.363413 | 1.2181416 | 0.17491 | 0.208021 | 0.8352107 |
| 2014 | 19 | Standard Chartered Bank Ltd | 0.324603 | 1.1730003 | 0.158073 | 0.198181 | 0.8167457 |
| 2015 | 19 | Standard Chartered Bank Ltd | 0.272512 | 1.2099615 | 0.175281 | 0.211582 | 0.823099 |
| 2006 | 20 | Transnational Bank Ltd | 0 | 0 | 0.654028 | 0.654028 | 0 |
| 2007 | 20 | Transnational Bank Ltd | 0 | 0 | 0.59596 | 0.607744 | 0 |
| 2008 | 20 | Transnational Bank Ltd | 0 | 0 | 0.652011 | 0.662198 | 0 |
| 2009 | 20 | Transnational Bank Ltd | 0.06076 | 1.971959 | 0.705405 | 0.716216 | 0.5503374 |
| 2010 | 20 | Transnational Bank Ltd | 0.068636 | 2.0783212 | 0.695692 | 0.706233 | 0.6763965 |
| 2011 | 20 | Transnational Bank Ltd | 0.134999 | 1.6910716 | 0.461559 | 0.468843 | 0.7606697 |
| 2012 | 20 | Transnational Bank Ltd | 0.087689 | 1.557829 | 0.379398 | 0.386816 | 0.7916146 |
| 2013 | 20 | Transnational Bank Ltd | 0.081966 | 1.4235709 | 0.303391 | 0.313801 | 0.8063781 |
| 2014 | 20 | Transnational Bank Ltd | 0.114628 | 1.2355858 | 0.205576 | 0.217022 | 0.8129883 |
| 2015 | 20 | Transnational Bank Ltd | 0.1198 | 1.2174333 | 0.203526 | 0.21461 | 0.7992975 |

Source: CBK 2006,2007,2008,2009,2010,2011,2012,2013,2014,2015

Table 4.12

*Variables Measurements*

| Year | ID | Bank | ICR | Total Loans | Total Accounts | Total Assets | Collateral value |
|---|---|---|---|---|---|---|---|
| 2006 | 1 | Barclays Bank Of Kenya Ltd | 2.867 | 78412 | 346489 | 117722 | 2792 |
| 2007 | 1 | Barclays Bank Of Kenya Ltd | 2.949 | 108670 | 428531 | 157656 | 4960 |
| 2008 | 1 | Barclays Bank Of Kenya Ltd | 2.937 | 109368 | 631800 | 168512 | 4063 |
| 2009 | 1 | Barclays Bank Of Kenya Ltd | 2.92 | 94056 | 748159 | 164875 | 5103 |
| 2010 | 1 | Barclays Bank Of Kenya Ltd | 2.907 | 88347 | 862140 | 172415 | 3811 |
| 2011 | 1 | Barclays Bank Of Kenya Ltd | 2.954 | 102448 | 1000000 | 167029 | 3775 |
| 2012 | 1 | Barclays Bank Of Kenya Ltd | 2.96 | 106973 | 2300000 | 184826 | 4379 |
| 2013 | 1 | Barclays Bank Of Kenya Ltd | 2.987 | 121504 | 2300000 | 206739 | 6827 |
| 2014 | 1 | Barclays Bank Of Kenya Ltd | 2.912 | 128991 | 1400000 | 225841 | 8682 |
| 2015 | 1 | Barclays Bank Of Kenya Ltd | 2.852 | 149834 | 1500000 | 240877 | 16809 |
| 2006 | 2 | Cooperative Bank of Kenya Ltd | 2.951 | 44692 | 486572 | 57688 | 4737 |
| 2007 | 2 | Cooperative Bank of Kenya Ltd | 2.932 | 45412 | 556073 | 65324 | 4842 |
| 2008 | 2 | Cooperative Bank of Kenya Ltd | 2.94 | 60418 | 694729 | 83486 | 17118 |
| 2009 | 2 | Cooperative Bank of Kenya Ltd | 2.953 | 66620 | 970974 | 110678 | 35871 |
| 2010 | 2 | Cooperative Bank of Kenya Ltd | 2.969 | 90965 | 1500000 | 154339 | 56432 |
| 2011 | 2 | Cooperative Bank of Kenya Ltd | 2.976 | 114101 | 1900000 | 168312 | 69461 |
| 2012 | 2 | Cooperative Bank of Kenya Ltd | 2.978 | 123824 | 2300000 | 200588 | 95090 |
| 2013 | 2 | Cooperative Bank of Kenya Ltd | 2.964 | 141608 | 2300000 | 231215 | 329665 |
| 2014 | 2 | Cooperative Bank of Kenya Ltd | 2.958 | 183942 | 2600000 | 285396 | 239778 |
| 2015 | 2 | Cooperative Bank of Kenya Ltd | 2.975 | 215745 | 2800000 | 342500 | 252870 |
| 2006 | 3 | African Banking Corporation Ltd | 0 | 0 | 6123 | 6591 | 0 |
| 2007 | 3 | African Banking Corporation Ltd | 0 | 0 | 9053 | 6700 | 0 |
| 2008 | 3 | African Banking Corporation Ltd | 0 | 0 | 11109 | 6826 | 0 |
| 2009 | 3 | African Banking Corporation Ltd | 0 | 0 | 12091 | 9118 | 0 |
| 2010 | 3 | African Banking Corporation Ltd | 2.966 | 8028 | 13935 | 10297 | 8720 |
| 2011 | 3 | African Banking Corporation Ltd | 2.977 | 0 | 17604 | 12507 | 11326 |
| 2012 | 3 | African Banking Corporation Ltd | 2.974 | 10134 | 18452 | 19071 | 13632 |
| 2013 | 3 | African Banking Corporation Ltd | 2.835 | 11491 | 23686 | 19639 | 14043 |
| 2014 | 3 | African Banking Corporation Ltd | 2.724 | 13680 | 31296 | 21439 | 15278 |
| 2015 | 3 | African Banking Corporation Ltd | 2.66 | 15292 | 32883 | 22058 | 17707 |
| 2006 | 4 | Bank of Africa Ltd | 2.96 | 3773 | 2556 | 8515 | 0 |
| 2007 | 4 | Bank of Africa Ltd | 2.918 | 4579 | 3580 | 8093 | 46 |
| 2008 | 4 | Bank of Africa Ltd | 2.927 | 10235 | 5648 | 12823 | 81 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2009 | 4 | Bank of Africa Ltd | 2.944 | 13730 | 8722 | 16978 | 98 |
| 2010 | 4 | Bank of Africa Ltd | 2.948 | 19557 | 18763 | 26699 | 317 |
| 2011 | 4 | Bank of Africa Ltd | 2.946 | 29982 | 26061 | 38734 | 417 |
| 2012 | 4 | Bank of Africa Ltd | 2.928 | 29986 | 36888 | 48958 | 744 |
| 2013 | 4 | Bank of Africa Ltd | 2.824 | 37938 | 44522 | 52683 | 1947 |
| 2014 | 4 | Bank of Africa Ltd | 2.81 | 38465 | 55579 | 62212 | 2412 |
| 2015 | 4 | Bank of Africa Ltd | 2.51 | 37799 | 82464 | 69280 | 9744 |
| 2006 | 5 | Bank of Baroda | 0 | 0 | 23245 | 12809 | 0 |
| 2007 | 5 | Bank of Baroda | 0 | 0 | 24672 | 15245 | 0 |
| 2008 | 5 | Bank of Baroda | 0 | 0 | 29217 | 18787 | 0 |
| 2009 | 5 | Bank of Baroda | 0 | 0 | 31213 | 22399 | 0 |
| 2010 | 5 | Bank of Baroda | 0 | 0 | 32410 | 32332 | 0 |
| 2011 | 5 | Bank of Baroda | 2.898 | 19144 | 34689 | 36701 | 648 |
| 2012 | 5 | Bank of Baroda | 2.906 | 21922 | 38724 | 46138 | 583 |
| 2013 | 5 | Bank of Baroda | 2.928 | 23578 | 41040 | 52022 | 598 |
| 2014 | 5 | Bank of Baroda | 2.814 | 28388 | 43915 | 61945 | 1064 |
| 2015 | 5 | Bank of Baroda | 2.796 | 31018 | 43462 | 68178 | 2364 |
| 2006 | 6 | Commercial Bank of Africa Ltd | 0 | 0 | 23136 | 45002 | 0 |
| 2007 | 6 | Commercial Bank of Africa Ltd | 0 | 0 | 23657 | 40178 | 0 |
| 2008 | 6 | Commercial Bank of Africa Ltd | 0 | 29290 | 25450 | 51248 | 0 |
| 2009 | 6 | Commercial Bank of Africa Ltd | 0 | 34478 | 28338 | 58904 | 0 |
| 2010 | 6 | Commercial Bank of Africa Ltd | 0 | 38642 | 27290 | 63592 | 0 |
| 2011 | 6 | Commercial Bank of Africa Ltd | 2.856 | 47364 | 34884 | 83283 | 1476 |
| 2012 | 6 | Commercial Bank of Africa Ltd | 2.874 | 53120 | 1100000 | 100456 | 1248 |
| 2013 | 6 | Commercial Bank of Africa Ltd | 2.873 | 68640 | 5700000 | 124882 | 0 |
| 2014 | 6 | Commercial Bank of Africa Ltd | 0 | 99674 | 9400000 | 175809 | 0 |
| 2015 | 6 | Commercial Bank of Africa Ltd | 0 | 0 | 13000000 | 198484 | 0 |
| 2006 | 7 | Consolidated Bank of Kenya Ltd | 2.632 | 1642 | 19684 | 4100 | 2763 |
| 2007 | 7 | Consolidated Bank of Kenya Ltd | 2.703 | 2245 | 25078 | 5392 | 4093 |
| 2008 | 7 | Consolidated Bank of Kenya Ltd | 2.635 | 2750 | 30780 | 5543 | 4944 |
| 2009 | 7 | Consolidated Bank of Kenya Ltd | 2.816 | 3868 | 37027 | 7565 | 1974 |
| 2010 | 7 | Consolidated Bank of Kenya Ltd | 2.837 | 6047 | 44534 | 10479 | 1865 |
| 2011 | 7 | Consolidated Bank of Kenya Ltd | 2.833 | 9197 | 36137 | 15318 | 2024 |
| 2012 | 7 | Consolidated Bank of Kenya Ltd | 2.784 | 10077 | 45190 | 18001 | 2602 |
| 2013 | 7 | Consolidated Bank of Kenya Ltd | 2.76 | 10855 | 45250 | 16779 | 5133 |
| 2014 | 7 | Consolidated Bank of Kenya Ltd | 2.644 | 9212 | 48456 | 15077 | 4183 |
| 2015 | 7 | Consolidated Bank of Kenya Ltd | 0 | 0 | 49098 | 14136 | 0 |
| 2006 | 8 | Diamond Trust Bank Kenya Ltd | 0 | 0 | 20578 | 26153 | 0 |
| 2007 | 8 | Diamond Trust Bank Kenya Ltd | 0 | 0 | 29589 | 31130 | 0 |
| 2008 | 8 | Diamond Trust Bank Kenya Ltd | 0 | 0 | 37718 | 42073 | 0 |
| 2009 | 8 | Diamond Trust Bank Kenya Ltd | 2.755 | 41518 | 43975 | 47509 | 647 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2010 | 8 | Diamond Trust Bank Kenya Ltd | 2.749 | 51260 | 51329 | 58606 | 961 |
| 2011 | 8 | Diamond Trust Bank Kenya Ltd | 2.734 | 71297 | 64174 | 77453 | 1634 |
| 2012 | 8 | Diamond Trust Bank Kenya Ltd | 2.733 | 87707 | 91580 | 94512 | 2413 |
| 2013 | 8 | Diamond Trust Bank Kenya Ltd | 2.723 | 110945 | 170147 | 114136 | 3140 |
| 2014 | 8 | Diamond Trust Bank Kenya Ltd | 2.705 | 137654 | 582475 | 141176 | 3637 |
| 2015 | 8 | Diamond Trust Bank Kenya Ltd | 2.728 | 177544 | 655543 | 190948 | 5309 |
| 2006 | 9 | Equity Bank Ltd | 0 | 0 | 1000000 | 22391 | 0 |
| 2007 | 9 | Equity Bank Ltd | 0 | 0 | 1800000 | 54640 | 0 |
| 2008 | 9 | Equity Bank Ltd | 0 | 0 | 3000000 | 78001 | 0 |
| 2009 | 9 | Equity Bank Ltd | 0 | 0 | 4000000 | 98434 | 0 |
| 2010 | 9 | Equity Bank Ltd | 0 | 78301 | 5400000 | 133890 | 2988 |
| 2011 | 9 | Equity Bank Ltd | 0 | 113823 | 6600000 | 176911 | 1570 |
| 2012 | 9 | Equity Bank Ltd | 0 | 135692 | 7000000 | 215829 | 778 |
| 2013 | 9 | Equity Bank Ltd | 0 | 171363 | 7400000 | 238194 | 3945 |
| 2014 | 9 | Equity Bank Ltd | 0 | 214170 | 8400000 | 277116 | 2006 |
| 2015 | 9 | Equity Bank Ltd | 0 | 269892 | 8800000 | 341329 | 2099 |
| 2006 | 10 | Family Bank Ltd | 0 | 0 | 321700 | 0 | 0 |
| 2007 | 10 | Family Bank Ltd | 0 | 0 | 465038 | 9123 | 0 |
| 2008 | 10 | Family Bank Ltd | 2.757 | 5889 | 574805 | 10713 | 384 |
| 2009 | 10 | Family Bank Ltd | 2.874 | 7675 | 539946 | 13683 | 468 |
| 2010 | 10 | Family Bank Ltd | 2.85 | 10298 | 776945 | 20188 | 391 |
| 2011 | 10 | Family Bank Ltd | 2.838 | 16332 | 959036 | 26002 | 419 |
| 2012 | 10 | Family Bank Ltd | 2.836 | 17868 | 1200000 | 30985 | 648 |
| 2013 | 10 | Family Bank Ltd | 2.891 | 27943 | 1300000 | 43501 | 980 |
| 2014 | 10 | Family Bank Ltd | 2.919 | 37925 | 1500000 | 61813 | 2737 |
| 2015 | 10 | Family Bank Ltd | 2.912 | 55853 | 1800000 | 81190 | 2324 |
| 2006 | 11 | Giro Commercial Bank Ltd | 0 | 0 | 5889 | 5700 | 0 |
| 2007 | 11 | Giro Commercial Bank Ltd | 0 | 0 | 6390 | 5970 | 0 |
| 2008 | 11 | Giro Commercial Bank Ltd | 0 | 0 | 6238 | 6154 | 0 |
| 2009 | 11 | Giro Commercial Bank Ltd | 2.319 | 3682 | 7777 | 7026 | 56 |
| 2010 | 11 | Giro Commercial Bank Ltd | 2.29 | 4933 | 8829 | 10234 | 64 |
| 2011 | 11 | Giro Commercial Bank Ltd | 2.831 | 6360 | 9365 | 11846 | 41 |
| 2012 | 11 | Giro Commercial Bank Ltd | 2.715 | 5519 | 9070 | 12280 | 67 |
| 2013 | 11 | Giro Commercial Bank Ltd | 2.787 | 6908 | 9439 | 13623 | 370 |
| 2014 | 11 | Giro Commercial Bank Ltd | 2.827 | 7716 | 9530 | 15082 | 469 |
| 2015 | 11 | Giro Commercial Bank Ltd | 2.822 | 9327 | 8281 | 15810 | 265 |
| 2006 | 12 | Investment & Mortgages Bank Ltd | 0 | 14702 | 18265 | 30054 | 207 |
| 2007 | 12 | Investment & Mortgages Bank Ltd | 0 | 19214 | 22053 | 30389 | 245 |
| 2008 | 12 | Investment & Mortgages Bank Ltd | 0 | 29775 | 26784 | 37022 | 1564 |
| 2009 | 12 | Investment & Mortgages Bank Ltd | 2.788 | 30480 | 31911 | 44486 | 598 |
| 2010 | 12 | Investment & Mortgages Bank Ltd | 2.775 | 50257 | 38747 | 62552 | 434 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2011 | 12 | Investment & Mortgages Bank Ltd | 2.842 | 66365 | 47236 | 76903 | 232 |
| 2012 | 12 | Investment & Mortgages Bank Ltd | 2.895 | 87835 | 58162 | 91520 | 248 |
| 2013 | 12 | Investment & Mortgages Bank Ltd | 2.846 | 91882 | 15890 | 110316 | 659 |
| 2014 | 12 | Investment & Mortgages Bank Ltd | 2.862 | 101610 | 81732 | 137299 | 667 |
| 2015 | 12 | Investment & Mortgages Bank Ltd | 2.798 | 114927 | 98918 | 147846 | 3191 |
| 2006 | 13 | Imperial Bank Ltd | 0 | 5920 | 7466 | 12400 | 0 |
| 2007 | 13 | Imperial Bank Ltd | 0 | 7721 | 12527 | 12386 | 0 |
| 2008 | 13 | Imperial Bank Ltd | 2.743 | 9020 | 16049 | 13780 | 0 |
| 2009 | 13 | Imperial Bank Ltd | 2.756 | 10399 | 19412 | 15755 | 0 |
| 2010 | 13 | Imperial Bank Ltd | 2.718 | 11152 | 25848 | 19399 | 0 |
| 2011 | 13 | Imperial Bank Ltd | 2.674 | 15659 | 32921 | 25618 | 3618 |
| 2012 | 13 | Imperial Bank Ltd | 0 | 21292 | 40733 | 34590 | 5209 |
| 2013 | 13 | Imperial Bank Ltd | 0 | 0 | 48080 | 43006 | 0 |
| 2014 | 13 | Imperial Bank Ltd | 0 | 0 | 52398 | 56599 | 0 |
| 2015 | 13 | Imperial Bank Ltd | 0 | 0 | 0 | 0 | 0 |
| 2006 | 14 | Kenya Commercial Bank Ltd | 0 | 0 | 344264 | 115592 | 0 |
| 2007 | 14 | Kenya Commercial Bank Ltd | 0 | 0 | 487667 | 124527 | 0 |
| 2008 | 14 | Kenya Commercial Bank Ltd | 2.515 | 93522 | 505982 | 181974 | 0 |
| 2009 | 14 | Kenya Commercial Bank Ltd | 2.643 | 120467 | 751852 | 180041 | 0 |
| 2010 | 14 | Kenya Commercial Bank Ltd | 2.738 | 148113 | 1300000 | 223025 | 0 |
| 2011 | 14 | Kenya Commercial Bank Ltd | 0 | 198724 | 1700000 | 282494 | 0 |
| 2012 | 14 | Kenya Commercial Bank Ltd | 2.794 | 211664 | 1300000 | 304112 | 220549 |
| 2013 | 14 | Kenya Commercial Bank Ltd | 2.696 | 227721 | 1700000 | 323312 | 236610 |
| 2014 | 14 | Kenya Commercial Bank Ltd | 2.779 | 283732 | 2300000 | 376969 | 1.10E+06 |
| 2015 | 14 | Kenya Commercial Bank Ltd | 2.794 | 345968 | 3800000 | 467741 | 1.40E+06 |
| 2006 | 15 | National Bank of Kenya Ltd | 0 | 0 | 153546 | 70125 | 0 |
| 2007 | 15 | National Bank of Kenya Ltd | 0 | 0 | 233026 | 52098 | 0 |
| 2008 | 15 | National Bank of Kenya Ltd | 2.588 | 8950 | 278299 | 44588 | 12692 |
| 2009 | 15 | National Bank of Kenya Ltd | 2.798 | 13156 | 344649 | 52327 | 12626 |
| 2010 | 15 | National Bank of Kenya Ltd | 2.916 | 20844 | 398442 | 60027 | 13097 |
| 2011 | 15 | National Bank of Kenya Ltd | 2.908 | 28068 | 443781 | 68665 | 13726 |
| 2012 | 15 | National Bank of Kenya Ltd | 2.816 | 28346 | 474683 | 67155 | 14673 |
| 2013 | 15 | National Bank of Kenya Ltd | 2.704 | 39566 | 522123 | 92493 | 29038 |
| 2014 | 15 | National Bank of Kenya Ltd | 2.733 | 65641 | 572033 | 122865 | 47395 |
| 2015 | 15 | National Bank of Kenya Ltd | 2.494 | 67803 | 695392 | 125295 | 72662 |
| 2006 | 16 | National Industrial Credit Bank Ltd | 0 | 16570 | 18373 | 29240 | 0 |
| 2007 | 16 | National Industrial Credit Bank Ltd | 2.853 | 22209 | 21452 | 32673 | 487 |
| 2008 | 16 | National Industrial Credit Bank Ltd | 2.894 | 29954 | 25143 | 43609 | 410 |
| 2009 | 16 | National Industrial Credit Bank Ltd | 2.851 | 32511 | 29095 | 46326 | 385 |
| 2010 | 16 | National Industrial Credit Bank Ltd | 2.88 | 40754 | 32783 | 54776 | 62 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2011 | 16 | National Industrial Credit Bank Ltd | 2.88 | 56624 | 38398 | 73581 | 270 |
| 2012 | 16 | National Industrial Credit Bank Ltd | 2.902 | 71540 | 52170 | 101772 | 680 |
| 2013 | 16 | National Industrial Credit Bank Ltd | 2.88 | 83493 | 67944 | 112917 | 1928 |
| 2014 | 16 | National Industrial Credit Bank Ltd | 2.719 | 100575 | 79211 | 137087 | 1351 |
| 2015 | 16 | National Industrial Credit Bank Ltd | 2.903 | 114657 | 90790 | 156762 | 10451 |
| 2006 | 17 | Oriental Commercial Bank Ltd | 0 | 0 | 4944 | 2124 | 0 |
| 2007 | 17 | Oriental Commercial Bank Ltd | 0 | 0 | 4929 | 2367 | 0 |
| 2008 | 17 | Oriental Commercial Bank Ltd | 0 | 0 | 4757 | 2774 | 0 |
| 2009 | 17 | Oriental Commercial Bank Ltd | 2.677 | 1518 | 5004 | 3421 | 869 |
| 2010 | 17 | Oriental Commercial Bank Ltd | 2.752 | 2450 | 5406 | 4558 | 1522 |
| 2011 | 17 | Oriental Commercial Bank Ltd | 2.643 | 2798 | 5796 | 5030 | 0 |
| 2012 | 17 | Oriental Commercial Bank Ltd | 2.761 | 3452 | 5925 | 6220 | 9225 |
| 2013 | 17 | Oriental Commercial Bank Ltd | 2.822 | 4035 | 5831 | 7007 | 9564 |
| 2014 | 17 | Oriental Commercial Bank Ltd | 2.808 | 4627 | 5248 | 7858 | 9866 |
| 2015 | 17 | Oriental Commercial Bank Ltd | 2.683 | 5245 | 4842 | 8496 | 8088 |
| 2006 | 18 | Paramount-Universal Bank Ltd | 0 | 0 | 6183 | 3000 | 0 |
| 2007 | 18 | Paramount-Universal Bank Ltd | 0 | 0 | 7107 | 3371 | 0 |
| 2008 | 18 | Paramount-Universal Bank Ltd | 0 | 0 | 8016 | 3552 | 0 |
| 2009 | 18 | Paramount-Universal Bank Ltd | 0 | 0 | 4718 | 3418 | 0 |
| 2010 | 18 | Paramount-Universal Bank Ltd | 0 | 0 | 6520 | 4420 | 0 |
| 2011 | 18 | Paramount-Universal Bank Ltd | 0 | 0 | 5213 | 4727 | 0 |
| 2012 | 18 | Paramount-Universal Bank Ltd | 2.701 | 2739 | 9707 | 7255 | 269 |
| 2013 | 18 | Paramount-Universal Bank Ltd | 2.601 | 3272 | 10627 | 8029 | 237 |
| 2014 | 18 | Paramount-Universal Bank Ltd | 2.68 | 4447 | 6965 | 10402 | 290 |
| 2015 | 18 | Paramount-Universal Bank Ltd | 2.69 | 5871 | 8560 | 10526 | 239 |
| 2006 | 19 | Standard Chartered Bank Ltd | 0 | 37415 | 125020 | 114162 | 0 |
| 2007 | 19 | Standard Chartered Bank Ltd | 0 | 41025 | 131618 | 92966 | 0 |
| 2008 | 19 | Standard Chartered Bank Ltd | 2.908 | 44857 | 126882 | 100392 | 3873 |
| 2009 | 19 | Standard Chartered Bank Ltd | 2.923 | 58016 | 145226 | 124806 | 1803 |
| 2010 | 19 | Standard Chartered Bank Ltd | 2.927 | 61599 | 155650 | 142880 | 4043 |
| 2011 | 19 | Standard Chartered Bank Ltd | 2.925 | 97417 | 159512 | 164182 | 3585 |
| 2012 | 19 | Standard Chartered Bank Ltd | 2.929 | 114534 | 171377 | 195493 | 4607 |
| 2013 | 19 | Standard Chartered Bank Ltd | 2.869 | 131965 | 195631 | 220524 | 8235 |
| 2014 | 19 | Standard Chartered Bank Ltd | 2.796 | 126275 | 215098 | 222636 | 14753 |
| 2015 | 19 | Standard Chartered Bank Ltd | 2.72 | 123409 | 217832 | 234131 | 10826 |
| 2006 | 20 | Transnational Bank Ltd | 0 | 0 | 8507 | 2820 | 0 |
| 2007 | 20 | Transnational Bank Ltd | 0 | 0 | 11053 | 3664 | 0 |
| 2008 | 20 | Transnational Bank Ltd | 0 | 0 | 14932 | 3710 | 0 |
| 2009 | 20 | Transnational Bank Ltd | 2.385 | 1939 | 17794 | 3705 | 583 |
| 2010 | 20 | Transnational Bank Ltd | 2.409 | 2138 | 22773 | 4762 | 900 |
| 2011 | 20 | Transnational Bank Ltd | 2.603 | 3308 | 29469 | 7287 | 1158 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2012 | 20 | Transnational Bank Ltd | 2.625 | 4238 | 36514 | 8801 | 1238 |
| 2013 | 20 | Transnational Bank Ltd | 2.641 | 5144 | 39441 | 9658 | 1145 |
| 2014 | 20 | Transnational Bank Ltd | 2.517 | 6009 | 46199 | 10240 | 3341 |
| 2015 | 20 | Transnational Bank Ltd | 2.499 | 6649 | 55655 | 10533 | 3462 |

Source: CBK 2006,2007,2008,2009,2010,2011,2012,2013,2014,2015

Table 4.13

*Variables Measurements*

| Year | ID | Bank | Interest income | Loan Loss Provisions | Non-Performing Loans | Complete Write Off |
|---|---|---|---|---|---|---|
| 2006 | 1 | Barclays Bank Of Kenya Ltd | 10428 | 881 | 4505 | 1182 |
| 2007 | 1 | Barclays Bank Of Kenya Ltd | 13634 | 687 | 3324 | 1971 |
| 2008 | 1 | Barclays Bank Of Kenya Ltd | 17821 | 1282 | 3778 | 1052 |
| 2009 | 1 | Barclays Bank Of Kenya Ltd | 17517 | 513 | 3726 | 930 |
| 2010 | 1 | Barclays Bank Of Kenya Ltd | 17131 | 1200 | 3783 | 1434 |
| 2011 | 1 | Barclays Bank Of Kenya Ltd | 17632 | 729 | 3376 | 1405 |
| 2012 | 1 | Barclays Bank Of Kenya Ltd | 21041 | 144 | 2769 | 1525 |
| 2013 | 1 | Barclays Bank Of Kenya Ltd | 21297 | 1223 | 3142 | 1105 |
| 2014 | 1 | Barclays Bank Of Kenya Ltd | 22941 | 1405 | 3568 | 1276 |
| 2015 | 1 | Barclays Bank Of Kenya Ltd | 25286 | 1766 | 4455 | 1219 |
| 2006 | 2 | Cooperative Bank of Kenya Ltd | 4414 | 16655 | 1425 | 20 |
| 2007 | 2 | Cooperative Bank of Kenya Ltd | 5850 | 7367 | 700 | 10403 |
| 2008 | 2 | Cooperative Bank of Kenya Ltd | 7425 | 7509 | 403 | 0 |
| 2009 | 2 | Cooperative Bank of Kenya Ltd | 9348 | 4346 | 628 | 3515 |
| 2010 | 2 | Cooperative Bank of Kenya Ltd | 12141 | 4346 | 799 | 504 |
| 2011 | 2 | Cooperative Bank of Kenya Ltd | 16858 | 4692 | 710 | 0 |
| 2012 | 2 | Cooperative Bank of Kenya Ltd | 22230 | 4736 | 999 | 675 |
| 2013 | 2 | Cooperative Bank of Kenya Ltd | 1904 | 4521 | 778 | 524 |
| 2014 | 2 | Cooperative Bank of Kenya Ltd | 27210 | 4456 | 1176 | 948 |
| 2015 | 2 | Cooperative Bank of Kenya Ltd | 33370 | 7173 | 2019 | 0 |
| 2006 | 3 | African Banking Corporation Ltd | 0 | 0 | 0 | 0 |
| 2007 | 3 | African Banking Corporation Ltd | 0 | 0 | 0 | 0 |
| 2008 | 3 | African Banking Corporation Ltd | 0 | 0 | 0 | 0 |
| 2009 | 3 | African Banking Corporation Ltd | 0 | 0 | 0 | 0 |
| 2010 | 3 | African Banking Corporation Ltd | 1055 | 40 | 205 | 14 |
| 2011 | 3 | African Banking Corporation Ltd | 1267 | 12 | 168 | 49 |
| 2012 | 3 | African Banking Corporation Ltd | 2265 | 31 | 194 | 4 |
| 2013 | 3 | African Banking Corporation Ltd | 2536 | 49 | 183 | 60 |
| 2014 | 3 | African Banking Corporation Ltd | 2731 | 162 | 285 | 60 |
| 2015 | 3 | African Banking Corporation Ltd | 2975 | 88 | 254 | 120 |
| 2006 | 4 | Bank of Africa Ltd | 434 | 0 | 29 | 0 |
| 2007 | 4 | Bank of Africa Ltd | 543 | 11 | 39 | 0 |
| 2008 | 4 | Bank of Africa Ltd | 1369 | 50 | 115 | 1 |
| 2009 | 4 | Bank of Africa Ltd | 2101 | 45 | 133 | 23 |
| 2010 | 4 | Bank of Africa Ltd | 2802 | 107 | 154 | 54 |
| 2011 | 4 | Bank of Africa Ltd | 4391 | 172 | 158 | 78 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2012 | 4 | Bank of Africa Ltd | 7404 | 76 | 423 | 12 |
| 2013 | 4 | Bank of Africa Ltd | 6813 | 131 | 706 | 318 |
| 2014 | 4 | Bank of Africa Ltd | 5635 | 561 | 841 | 24 |
| 2015 | 4 | Bank of Africa Ltd | 6914 | 2778 | 3565 | 77 |
| 2006 | 5 | Bank of Baroda | 0 | 0 | 0 | 0 |
| 2007 | 5 | Bank of Baroda | 0 | 0 | 0 | 0 |
| 2008 | 5 | Bank of Baroda | 0 | 0 | 0 | 0 |
| 2009 | 5 | Bank of Baroda | 0 | 0 | 0 | 0 |
| 2010 | 5 | Bank of Baroda | 0 | 0 | 0 | 0 |
| 2011 | 5 | Bank of Baroda | 3925 | 199 | 529 | 507 |
| 2012 | 5 | Bank of Baroda | 5901 | 8 | 359 | 165 |
| 2013 | 5 | Bank of Baroda | 6085 | 71 | 415 | 4 |
| 2014 | 5 | Bank of Baroda | 6807 | 85 | 494 | 6 |
| 2015 | 5 | Bank of Baroda | 7591 | 601 | 1021 | 180 |
| 2006 | 6 | Commercial Bank of Africa Ltd | 0 | 0 | 0 | 0 |
| 2007 | 6 | Commercial Bank of Africa Ltd | 0 | 0 | 0 | 0 |
| 2008 | 6 | Commercial Bank of Africa Ltd | 0 | 272 | 0 | 0 |
| 2009 | 6 | Commercial Bank of Africa Ltd | 0 | 263 | 0 | 0 |
| 2010 | 6 | Commercial Bank of Africa Ltd | 0 | 798 | 0 | 0 |
| 2011 | 6 | Commercial Bank of Africa Ltd | 6617 | 310 | 1805 | 214 |
| 2012 | 6 | Commercial Bank of Africa Ltd | 10801 | 173 | 1379 | 348 |
| 2013 | 6 | Commercial Bank of Africa Ltd | 11858 | 488 | 1917 | 1607 |
| 2014 | 6 | Commercial Bank of Africa Ltd | 14852 | 1728 | 3060 | 2594 |
| 2015 | 6 | Commercial Bank of Africa Ltd | 0 | 0 | 0 | 0 |
| 2006 | 7 | Consolidated Bank of Kenya Ltd | 297 | 52 | 348 | 124 |
| 2007 | 7 | Consolidated Bank of Kenya Ltd | 369 | 99 | 335 | 112 |
| 2008 | 7 | Consolidated Bank of Kenya Ltd | 458 | 63 | 340 | 44 |
| 2009 | 7 | Consolidated Bank of Kenya Ltd | 636 | 102 | 343 | 83 |
| 2010 | 7 | Consolidated Bank of Kenya Ltd | 887 | 117 | 362 | 76 |
| 2011 | 7 | Consolidated Bank of Kenya Ltd | 1585 | 81 | 381 | 18 |
| 2012 | 7 | Consolidated Bank of Kenya Ltd | 2636 | 167 | 406 | 95 |
| 2013 | 7 | Consolidated Bank of Kenya Ltd | 2336 | 406 | 743 | 69 |
| 2014 | 7 | Consolidated Bank of Kenya Ltd | 2054 | 447 | 1101 | 90 |
| 2015 | 7 | Consolidated Bank of Kenya Ltd | 0 | 0 | 0 | 0 |
| 2006 | 8 | Diamond Trust Bank Kenya Ltd | 0 | 58 | 0 | 0 |
| 2007 | 8 | Diamond Trust Bank Kenya Ltd | 0 | 66 | 0 | 0 |
| 2008 | 8 | Diamond Trust Bank Kenya Ltd | 0 | 190 | 0 | 0 |
| 2009 | 8 | Diamond Trust Bank Kenya Ltd | 6461 | 295 | 663 | 160 |
| 2010 | 8 | Diamond Trust Bank Kenya Ltd | 7364 | 557 | 1168 | 52 |
| 2011 | 8 | Diamond Trust Bank Kenya Ltd | 10039 | 588 | 1634 | 118 |
| 2012 | 8 | Diamond Trust Bank Kenya Ltd | 16579 | 984 | 2413 | 267 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2013 | 8 | Diamond Trust Bank Kenya Ltd | 17179 | 898 | 3140 | 182 |
| 2014 | 8 | Diamond Trust Bank Kenya Ltd | 20808 | 851 | 3637 | 369 |
| 2015 | 8 | Diamond Trust Bank Kenya Ltd | 25825 | 2150 | 5309 | 383 |
| 2006 | 9 | Equity Bank Ltd | 0 | 0 | 0 | 0 |
| 2007 | 9 | Equity Bank Ltd | 0 | 0 | 0 | 0 |
| 2008 | 9 | Equity Bank Ltd | 0 | 0 | 0 | 0 |
| 2009 | 9 | Equity Bank Ltd | 0 | 0 | 0 | 0 |
| 2010 | 9 | Equity Bank Ltd | 13775 | 1904 | 4374 | 915 |
| 2011 | 9 | Equity Bank Ltd | 19339 | 1629 | 3250 | 1118 |
| 2012 | 9 | Equity Bank Ltd | 30847 | 1608 | 4018 | 1982 |
| 2013 | 9 | Equity Bank Ltd | 31889 | 2401 | 4118 | 2675 |
| 2014 | 9 | Equity Bank Ltd | 35366 | 5214 | 7469 | 3746 |
| 2015 | 9 | Equity Bank Ltd | 43454 | 5199 | 6872 | 4028 |
| 2006 | 10 | Family Bank Ltd | 0 | 0 | 0 | 0 |
| 2007 | 10 | Family Bank Ltd | 0 | 0 | 0 | 0 |
| 2008 | 10 | Family Bank Ltd | 1317 | 95 | 321 | 228 |
| 2009 | 10 | Family Bank Ltd | 1613 | 71 | 398 | 185 |
| 2010 | 10 | Family Bank Ltd | 1896 | 325 | 725 | 325 |
| 2011 | 10 | Family Bank Ltd | 2844 | 337 | 1130 | 337 |
| 2012 | 10 | Family Bank Ltd | 4775 | 645 | 1775 | 811 |
| 2013 | 10 | Family Bank Ltd | 5354 | 321 | 988 | 1108 |
| 2014 | 10 | Family Bank Ltd | 7121 | 389 | 1331 | 46 |
| 2015 | 10 | Family Bank Ltd | 10032 | 211 | 1539 | 4 |
| 2006 | 11 | Giro Commercial Bank Ltd | 0 | 0 | 0 | 0 |
| 2007 | 11 | Giro Commercial Bank Ltd | 0 | 0 | 0 | 0 |
| 2008 | 11 | Giro Commercial Bank Ltd | 0 | 0 | 0 | 0 |
| 2009 | 11 | Giro Commercial Bank Ltd | 703 | 13 | 108 | 53 |
| 2010 | 11 | Giro Commercial Bank Ltd | 857 | 28 | 137 | 64 |
| 2011 | 11 | Giro Commercial Bank Ltd | 1185 | 18 | 111 | 67 |
| 2012 | 11 | Giro Commercial Bank Ltd | 1643 | 812 | 96 | 30 |
| 2013 | 11 | Giro Commercial Bank Ltd | 1507 | 7 | 88 | 285 |
| 2014 | 11 | Giro Commercial Bank Ltd | 1582 | 17 | 66 | 181 |
| 2015 | 11 | Giro Commercial Bank Ltd | 1853 | 18 | 57 | 123 |
| 2006 | 12 | Investment & Mortgages Bank Ltd | 2105 | 77 | 357 | 66 |
| 2007 | 12 | Investment & Mortgages Bank Ltd | 2765 | 125 | 418 | 70 |
| 2008 | 12 | Investment & Mortgages Bank Ltd | 3932 | 166 | 1930 | 179 |
| 2009 | 12 | Investment & Mortgages Bank Ltd | 5081 | 106 | 307 | 596 |
| 2010 | 12 | Investment & Mortgages Bank Ltd | 6611 | 300 | 470 | 746 |
| 2011 | 12 | Investment & Mortgages Bank Ltd | 9031 | 249 | 594 | 145 |
| 2012 | 12 | Investment & Mortgages Bank Ltd | 14007 | 60 | 632 | 208 |
| 2013 | 12 | Investment & Mortgages Bank Ltd | 14479 | 472 | 1076 | 100 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2014 | 12 | Investment & Mortgages Bank Ltd | 15748 | 787 | 566 | 72 |
| 2015 | 12 | Investment & Mortgages Bank Ltd | 19663 | 695 | 347 | 99 |
| 2006 | 13 | Imperial Bank Ltd | 1649 | 49 | 349 | 0 |
| 2007 | 13 | Imperial Bank Ltd | 1989 | 46 | 334 | 0 |
| 2008 | 13 | Imperial Bank Ltd | 2412 | 44 | 347 | 44 |
| 2009 | 13 | Imperial Bank Ltd | 2677 | 58 | 396 | 59 |
| 2010 | 13 | Imperial Bank Ltd | 2788 | 126 | 0 | 0 |
| 2011 | 13 | Imperial Bank Ltd | 4406 | 103 | 678 | 321 |
| 2012 | 13 | Imperial Bank Ltd | 6906 | 156 | 824 | 0 |
| 2013 | 13 | Imperial Bank Ltd | 0 | 0 | 0 | 0 |
| 2014 | 13 | Imperial Bank Ltd | 0 | 0 | 0 | 0 |
| 2015 | 13 | Imperial Bank Ltd | 0 | 0 | 0 | 0 |
| 2006 | 14 | Kenya Commercial Bank Ltd | 0 | 0 | 0 | 0 |
| 2007 | 14 | Kenya Commercial Bank Ltd | 0 | 0 | 0 | 0 |
| 2008 | 14 | Kenya Commercial Bank Ltd | 14745 | 1408 | 9134 | 0 |
| 2009 | 14 | Kenya Commercial Bank Ltd | 17948 | 717 | 14639 | 6356 |
| 2010 | 14 | Kenya Commercial Bank Ltd | 23109 | 2144 | 14583 | 6790 |
| 2011 | 14 | Kenya Commercial Bank Ltd | 28501 | 1896 | 12228 | 5240 |
| 2012 | 14 | Kenya Commercial Bank Ltd | 43082 | 3756 | 14750 | 7599 |
| 2013 | 14 | Kenya Commercial Bank Ltd | 41613 | 2905 | 19227 | 6761 |
| 2014 | 14 | Kenya Commercial Bank Ltd | 47475 | 5058 | 18404 | 9402 |
| 2015 | 14 | Kenya Commercial Bank Ltd | 56442 | 4713 | 0 | 0 |
| 2006 | 15 | National Bank of Kenya Ltd | 0 | 0 | 0 | 0 |
| 2007 | 15 | National Bank of Kenya Ltd | 0 | 0 | 0 | 0 |
| 2008 | 15 | National Bank of Kenya Ltd | 3782 | 361 | 1435 | 1843 |
| 2009 | 15 | National Bank of Kenya Ltd | 4485 | 143 | 894 | 663 |
| 2010 | 15 | National Bank of Kenya Ltd | 5430 | 362 | 685 | 499 |
| 2011 | 15 | National Bank of Kenya Ltd | 6457 | 692 | 858 | 487 |
| 2012 | 15 | National Bank of Kenya Ltd | 8430 | 725 | 1583 | 0 |
| 2013 | 15 | National Bank of Kenya Ltd | 8165 | 287 | 1871 | 0 |
| 2014 | 15 | National Bank of Kenya Ltd | 10697 | 525 | 2396 | 0 |
| 2015 | 15 | National Bank of Kenya Ltd | 12248 | 3719 | 3619 | 2462 |
| 2006 | 16 | National Industrial Credit Bank Ltd | 2365 | 133 | 0 | 277 |
| 2007 | 16 | National Industrial Credit Bank Ltd | 2799 | 100 | 535 | 22 |
| 2008 | 16 | National Industrial Credit Bank Ltd | 3747 | 194 | 707 | 29 |
| 2009 | 16 | National Industrial Credit Bank Ltd | 4425 | 463 | 1214 | 26 |
| 2010 | 16 | National Industrial Credit Bank Ltd | 4943 | 316 | 1485 | 10 |
| 2011 | 16 | National Industrial Credit Bank Ltd | 6831 | 297 | 1730 | 9 |
| 2012 | 16 | National Industrial Credit Bank Ltd | 11467 | 258 | 1760 | 243 |
| 2013 | 16 | National Industrial Credit Bank Ltd | 11642 | 1092 | 2762 | 48 |
| 2014 | 16 | National Industrial Credit Bank Ltd | 13711 | 329 | 2745 | 314 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2015 | 16 | National Industrial Credit Bank Ltd | 17014 | 1652 | 2931 | 1463 |
| 2006 | 17 | Oriental Commercial Bank Ltd | 0 | 0 | 0 | 0 |
| 2007 | 17 | Oriental Commercial Bank Ltd | 0 | 0 | 0 | 0 |
| 2008 | 17 | Oriental Commercial Bank Ltd | 0 | 0 | 0 | 0 |
| 2009 | 17 | Oriental Commercial Bank Ltd | 192 | 9 | 226 | 152 |
| 2010 | 17 | Oriental Commercial Bank Ltd | 328 | 50 | 161 | 92 |
| 2011 | 17 | Oriental Commercial Bank Ltd | 460 | 45 | 160 | 37 |
| 2012 | 17 | Oriental Commercial Bank Ltd | 835 | 3 | 161 | 4 |
| 2013 | 17 | Oriental Commercial Bank Ltd | 836 | 14 | 127 | 25 |
| 2014 | 17 | Oriental Commercial Bank Ltd | 945 | 58 | 169 | 0 |
| 2015 | 17 | Oriental Commercial Bank Ltd | 1092 | 87 | 67 | 142 |
| 2006 | 18 | Paramount-Universal Bank Ltd | 0 | 0 | 0 | 0 |
| 2007 | 18 | Paramount-Universal Bank Ltd | 0 | 0 | 0 | 0 |
| 2008 | 18 | Paramount-Universal Bank Ltd | 0 | 0 | 0 | 0 |
| 2009 | 18 | Paramount-Universal Bank Ltd | 0 | 0 | 0 | 0 |
| 2010 | 18 | Paramount-Universal Bank Ltd | 0 | 0 | 0 | 0 |
| 2011 | 18 | Paramount-Universal Bank Ltd | 0 | 0 | 0 | 0 |
| 2012 | 18 | Paramount-Universal Bank Ltd | 678 | 8 | 152 | 1 |
| 2013 | 18 | Paramount-Universal Bank Ltd | 976 | 13 | 162 | 3 |
| 2014 | 18 | Paramount-Universal Bank Ltd | 1017 | 10 | 172 | 1 |
| 2015 | 18 | Paramount-Universal Bank Ltd | 1340 | 12 | 104 | 80 |
| 2006 | 19 | Standard Chartered Bank Ltd | 0 | 502 | 0 | 0 |
| 2007 | 19 | Standard Chartered Bank Ltd | 0 | 206 | 0 | 0 |
| 2008 | 19 | Standard Chartered Bank Ltd | 7445 | 365 | 1321 | 454 |
| 2009 | 19 | Standard Chartered Bank Ltd | 9347 | 474 | 1558 | 821 |
| 2010 | 19 | Standard Chartered Bank Ltd | 9777 | 332 | 1263 | 543 |
| 2011 | 19 | Standard Chartered Bank Ltd | 12011 | 412 | 1319 | 612 |
| 2012 | 19 | Standard Chartered Bank Ltd | 19375 | 716 | 1840 | 431 |
| 2013 | 19 | Standard Chartered Bank Ltd | 21526 | 783 | 2293 | 490 |
| 2014 | 19 | Standard Chartered Bank Ltd | 21742 | 1047 | 3526 | 85 |
| 2015 | 19 | Standard Chartered Bank Ltd | 22608 | 4591 | 8284 | 0 |
| 2006 | 20 | Transnational Bank Ltd | 0 | 0 | 0 | 0 |
| 2007 | 20 | Transnational Bank Ltd | 0 | 0 | 0 | 0 |
| 2008 | 20 | Transnational Bank Ltd | 0 | 0 | 0 | 0 |
| 2009 | 20 | Transnational Bank Ltd | 414 | 33 | 250 | 23 |
| 2010 | 20 | Transnational Bank Ltd | 444 | 61 | 200 | 111 |
| 2011 | 20 | Transnational Bank Ltd | 700 | 64 | 254 | 11 |
| 2012 | 20 | Transnational Bank Ltd | 985 | 51 | 250 | 55 |
| 2013 | 20 | Transnational Bank Ltd | 1092 | 87 | 319 | 17 |
| 2014 | 20 | Transnational Bank Ltd | 1263 | 91 | 325 | 34 |
| 2015 | 20 | Transnational Bank Ltd | 1445 | 77 | 429 | 12 |

Source: CBK 2006,2007,2008,2009,2010,2011,2012,2013,2014,2015

Table 4.14

*Variables Measurements*

| Year | ID | Bank | Tier1 | Risk Weighted Asset | Total capital | Debt | Interest expense |
|---|---|---|---|---|---|---|---|
| 2006 | 1 | Barclays Bank Of Kenya Ltd | 12375 | 102066 | 12375 | 102860 | 1492 |
| 2007 | 1 | Barclays Bank Of Kenya Ltd | 17019 | 130644 | 18280 | 140092 | 2253 |
| 2008 | 1 | Barclays Bank Of Kenya Ltd | 19980 | 133041 | 24940 | 148017 | 3811 |
| 2009 | 1 | Barclays Bank Of Kenya Ltd | 22186 | 115880 | 27619 | 140666 | 2747 |
| 2010 | 1 | Barclays Bank Of Kenya Ltd | 28424 | 106928 | 33311 | 140950 | 1457 |
| 2011 | 1 | Barclays Bank Of Kenya Ltd | 29013 | 120366 | 33478 | 137806 | 1296 |
| 2012 | 1 | Barclays Bank Of Kenya Ltd | 28329 | 124840 | 32169 | 155239 | 2896 |
| 2013 | 1 | Barclays Bank Of Kenya Ltd | 31798 | 191652 | 33172 | 174367 | 2437 |
| 2014 | 1 | Barclays Bank Of Kenya Ltd | 37980 | 205806 | 38419 | 187486 | 3337 |
| 2015 | 1 | Barclays Bank Of Kenya Ltd | 35419 | 224121 | 41222 | 201161 | 4875 |
| 2006 | 2 | Cooperative Bank of Kenya Ltd | 4360 | 32799 | 4776 | 52854 | 1079 |
| 2007 | 2 | Cooperative Bank of Kenya Ltd | 5882 | 41369 | 6004 | 58864 | 1000 |
| 2008 | 2 | Cooperative Bank of Kenya Ltd | 12613 | 57313 | 13456 | 69877 | 1729 |
| 2009 | 2 | Cooperative Bank of Kenya Ltd | 14823 | 72928 | 15319 | 94386 | 2294 |
| 2010 | 2 | Cooperative Bank of Kenya Ltd | 17971 | 111233 | 18402 | 133744 | 2638 |
| 2011 | 2 | Cooperative Bank of Kenya Ltd | 22103 | 137792 | 22622 | 147360 | 16859 |
| 2012 | 2 | Cooperative Bank of Kenya Ltd | 29414 | 145187 | 34542 | 171221 | 8680 |
| 2013 | 2 | Cooperative Bank of Kenya Ltd | 32123 | 205152 | 43195 | 194631 | 5916 |
| 2014 | 2 | Cooperative Bank of Kenya Ltd | 37462 | 256511 | 55534 | 242519 | 8076 |
| 2015 | 2 | Cooperative Bank of Kenya Ltd | 43283 | 298137 | 63372 | 293197 | 13586 |
| 2006 | 3 | African Banking Corporation Ltd | 670 | 3861 | 677 | 0 | 0 |
| 2007 | 3 | African Banking Corporation Ltd | 808 | 4727 | 811 | 0 | 0 |
| 2008 | 3 | African Banking Corporation Ltd | 959 | 4511 | 963 | 0 | 0 |
| 2009 | 3 | African Banking Corporation Ltd | 1135 | 5515 | 1141 | 0 | 0 |
| 2010 | 3 | African Banking Corporation Ltd | 1338 | 6924 | 1394 | 8644 | 361 |
| 2011 | 3 | African Banking Corporation Ltd | 1531 | 9086 | 1599 | 10793 | 513 |
| 2012 | 3 | African Banking Corporation Ltd | 1645 | 12079 | 1739 | 17338 | 1354 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2013 | 3 | African Banking Corporation Ltd | 1774 | 12429 | 1873 | 17857 | 1287 |
| 2014 | 3 | African Banking Corporation Ltd | 1928 | 17096 | 2945 | 19225 | 1352 |
| 2015 | 3 | African Banking Corporation Ltd | 2181 | 18304 | 3012 | 19587 | 1603 |
| 2006 | 4 | Bank of Africa Ltd | 746 | 4649 | 786 | 5509 | 185 |
| 2007 | 4 | Bank of Africa Ltd | 800 | 5888 | 848 | 6394 | 209 |
| 2008 | 4 | Bank of Africa Ltd | 1009 | 8124 | 1072 | 16536 | 611 |
| 2009 | 4 | Bank of Africa Ltd | 1706 | 11250 | 1790 | 22290 | 1016 |
| 2010 | 4 | Bank of Africa Ltd | 1899 | 17684 | 2682 | 32783 | 1294 |
| 2011 | 4 | Bank of Africa Ltd | 3408 | 26888 | 4303 | 47196 | 2265 |
| 2012 | 4 | Bank of Africa Ltd | 3567 | 34543 | 4547 | 47227 | 4635 |
| 2013 | 4 | Bank of Africa Ltd | 4803 | 43923 | 5587 | 58982 | 3690 |
| 2014 | 4 | Bank of Africa Ltd | 6105 | 51781 | 8244 | 54298 | 3157 |
| 2015 | 4 | Bank of Africa Ltd | 6970 | 52778 | 8651 | 60784 | 3764 |
| 2006 | 5 | Bank of Baroda | 1263 | 4589 | 1263 | 0 | 0 |
| 2007 | 5 | Bank of Baroda | 1466 | 7742 | 1466 | 0 | 0 |
| 2008 | 5 | Bank of Baroda | 1688 | 9109 | 1795 | 0 | 0 |
| 2009 | 5 | Bank of Baroda | 2081 | 10586 | 2176 | 0 | 0 |
| 2010 | 5 | Bank of Baroda | 3319 | 14708 | 3472 | 0 | 0 |
| 2011 | 5 | Bank of Baroda | 4464 | 21812 | 4667 | 31764 | 1639 |
| 2012 | 5 | Bank of Baroda | 5637 | 24951 | 5875 | 40379 | 3753 |
| 2013 | 5 | Bank of Baroda | 7414 | 35458 | 7663 | 44452 | 3041 |
| 2014 | 5 | Bank of Baroda | 9324 | 40044 | 9683 | 52077 | 3431 |
| 2015 | 5 | Bank of Baroda | 11181 | 42539 | 11547 | 56904 | 3884 |
| 2006 | 6 | Commercial Bank of Africa Ltd | 3030 | 20418 | 3121 | 0 | 0 |
| 2007 | 6 | Commercial Bank of Africa Ltd | 3459 | 25685 | 3622 | 0 | 0 |
| 2008 | 6 | Commercial Bank of Africa Ltd | 4295 | 34510 | 4494 | 0 | 0 |
| 2009 | 6 | Commercial Bank of Africa Ltd | 4545 | 37529 | 4821 | 0 | 0 |
| 2010 | 6 | Commercial Bank of Africa Ltd | 5728 | 41553 | 6028 | 0 | 0 |
| 2011 | 6 | Commercial Bank of Africa Ltd | 7661 | 55270 | 8038 | 84087 | 2475 |
| 2012 | 6 | Commercial Bank of Africa Ltd | 9712 | 62608 | 10063 | 105426 | 5497 |
| 2013 | 6 | Commercial Bank of Africa Ltd | 10378 | 81060 | 10927 | 130659 | 5486 |
| 2014 | 6 | Commercial Bank of Africa Ltd | 13779 | 121180 | 21705 | 178963 | 7824 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2015 | 6 | Commercial Bank of Africa Ltd | 17099 | 140604 | 25201 | 0 | 0 |
| 2006 | 7 | Consolidated Bank of Kenya Ltd | 516 | 2685 | 576 | 2714 | 37 |
| 2007 | 7 | Consolidated Bank of Kenya Ltd | 543 | 3216 | 607 | 3360 | 51 |
| 2008 | 7 | Consolidated Bank of Kenya Ltd | 666 | 3900 | 727 | 3811 | 90 |
| 2009 | 7 | Consolidated Bank of Kenya Ltd | 740 | 5173 | 811 | 5972 | 121 |
| 2010 | 7 | Consolidated Bank of Kenya Ltd | 896 | 8205 | 1082 | 9001 | 266 |
| 2011 | 7 | Consolidated Bank of Kenya Ltd | 1027 | 9402 | 1190 | 13883 | 720 |
| 2012 | 7 | Consolidated Bank of Kenya Ltd | 1171 | 10268 | 1543 | 16426 | 1704 |
| 2013 | 7 | Consolidated Bank of Kenya Ltd | 843 | 11254 | 1217 | 15536 | 1261 |
| 2014 | 7 | Consolidated Bank of Kenya Ltd | 1088 | 13139 | 1444 | 13509 | 1141 |
| 2015 | 7 | Consolidated Bank of Kenya Ltd | 1086 | 13974 | 1312 | 0 | 0 |
| 2006 | 8 | Diamond Trust Bank Kenya Ltd | 2531 | 14638 | 3022 | 0 | 0 |
| 2007 | 8 | Diamond Trust Bank Kenya Ltd | 4279 | 22398 | 4287 | 0 | 0 |
| 2008 | 8 | Diamond Trust Bank Kenya Ltd | 4457 | 28526 | 5640 | 0 | 0 |
| 2009 | 8 | Diamond Trust Bank Kenya Ltd | 5279 | 34324 | 6512 | 58590 | 2935 |
| 2010 | 8 | Diamond Trust Bank Kenya Ltd | 6637 | 43249 | 7973 | 73340 | 2481 |
| 2011 | 8 | Diamond Trust Bank Kenya Ltd | 8229 | 57898 | 9718 | 94510 | 3212 |
| 2012 | 8 | Diamond Trust Bank Kenya Ltd | 12029 | 68104 | 13511 | 116834 | 7332 |
| 2013 | 8 | Diamond Trust Bank Kenya Ltd | 15508 | 87817 | 18484 | 142776 | 6029 |
| 2014 | 8 | Diamond Trust Bank Kenya Ltd | 22245 | 132274 | 25065 | 179275 | 7769 |
| 2015 | 8 | Diamond Trust Bank Kenya Ltd | 25421 | 171281 | 30299 | 233303 | 9897 |
| 2006 | 9 | Equity Bank Ltd | 2201 | 15880 | 2201 | 0 | 0 |
| 2007 | 9 | Equity Bank Ltd | 13666 | 29919 | 17627 | 0 | 0 |
| 2008 | 9 | Equity Bank Ltd | 14272 | 48834 | 19910 | 0 | 0 |
| 2009 | 9 | Equity Bank Ltd | 16873 | 71416 | 22488 | 0 | 0 |
| 2010 | 9 | Equity Bank Ltd | 19931 | 90805 | 25320 | 115814 | 2061 |
| 2011 | 9 | Equity Bank Ltd | 19589 | 127548 | 27633 | 162008 | 3116 |
| 2012 | 9 | Equity Bank Ltd | 29525 | 148660 | 44741 | 200254 | 6883 |
| 2013 | 9 | Equity Bank Ltd | 34759 | 187346 | 44151 | 226173 | 5399 |
| 2014 | 9 | Equity Bank Ltd | 40733 | 268518 | 47552 | 280795 | 6192 |
| 2015 | 9 | Equity Bank Ltd | 47659 | 325484 | 52887 | 355926 | 9330 |
| 2006 | 10 | Family Bank Ltd | 0 | 0 | 0 | 0 | 0 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2007 | 10 | Family Bank Ltd | 1146 | 5197 | 1155 | 0 | 0 |
| 2008 | 10 | Family Bank Ltd | 1409 | 7416 | 1418 | 9056 | 142 |
| 2009 | 10 | Family Bank Ltd | 1735 | 9525 | 1744 | 11600 | 199 |
| 2010 | 10 | Family Bank Ltd | 2986 | 12523 | 2995 | 17082 | 225 |
| 2011 | 10 | Family Bank Ltd | 2997 | 18519 | 3150 | 22678 | 490 |
| 2012 | 10 | Family Bank Ltd | 4619 | 21096 | 4786 | 26108 | 1484 |
| 2013 | 10 | Family Bank Ltd | 5631 | 31127 | 5896 | 37505 | 903 |
| 2014 | 10 | Family Bank Ltd | 10184 | 52067 | 10551 | 51144 | 1748 |
| 2015 | 10 | Family Bank Ltd | 11329 | 73606 | 13884 | 69239 | 3632 |
| 2006 | 11 | Giro Commercial Bank Ltd | 446 | 2795 | 481 | 0 | 0 |
| 2007 | 11 | Giro Commercial Bank Ltd | 484 | 3057 | 522 | 0 | 0 |
| 2008 | 11 | Giro Commercial Bank Ltd | 564 | 3215 | 604 | 0 | 0 |
| 2009 | 11 | Giro Commercial Bank Ltd | 808 | 3657 | 854 | 6057 | 340 |
| 2010 | 11 | Giro Commercial Bank Ltd | 1278 | 5386 | 1340 | 8894 | 449 |
| 2011 | 11 | Giro Commercial Bank Ltd | 1500 | 6658 | 1579 | 10267 | 631 |
| 2012 | 11 | Giro Commercial Bank Ltd | 1694 | 6014 | 1775 | 10504 | 1159 |
| 2013 | 11 | Giro Commercial Bank Ltd | 2005 | 7212 | 2087 | 11536 | 800 |
| 2014 | 11 | Giro Commercial Bank Ltd | 2330 | 10186 | 2422 | 12659 | 863 |
| 2015 | 11 | Giro Commercial Bank Ltd | 2715 | 11781 | 2835 | 12975 | 1020 |
| 2006 | 12 | Investment & Mortgages Bank Ltd | 2424 | 18911 | 2432 | 19553 | 864 |
| 2007 | 12 | Investment & Mortgages Bank Ltd | 3750 | 26033 | 3758 | 25553 | 1057 |
| 2008 | 12 | Investment & Mortgages Bank Ltd | 3933 | 35914 | 4533 | 37679 | 3932 |
| 2009 | 12 | Investment & Mortgages Bank Ltd | 5923 | 34866 | 6523 | 46971 | 2608 |
| 2010 | 12 | Investment & Mortgages Bank Ltd | 8467 | 44807 | 8924 | 73031 | 2779 |
| 2011 | 12 | Investment & Mortgages Bank Ltd | 10884 | 60079 | 11584 | 36592 | 3468 |
| 2012 | 12 | Investment & Mortgages Bank Ltd | 11862 | 69848 | 12109 | 50066 | 7447 |
| 2013 | 12 | Investment & Mortgages Bank Ltd | 14700 | 97526 | 18547 | 117508 | 5595 |
| 2014 | 12 | Investment & Mortgages Bank Ltd | 19122 | 121260 | 22863 | 131738 | 6653 |
| 2015 | 12 | Investment & Mortgages Bank Ltd | 23559 | 138179 | 26544 | 138006 | 8645 |
| 2006 | 13 | Imperial Bank Ltd | 1249 | 6314 | 1249 | 8052 | 0 |
| 2007 | 13 | Imperial Bank Ltd | 1455 | 8129 | 1537 | 10143 | 0 |
| 2008 | 13 | Imperial Bank Ltd | 1724 | 9071 | 1826 | 11520 | 0 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2009 | 13 | Imperial Bank Ltd | 2042 | 10019 | 2158 | 13111 | 0 |
| 2010 | 13 | Imperial Bank Ltd | 2230 | 11192 | 2369 | 16357 | 922 |
| 2011 | 13 | Imperial Bank Ltd | 3000 | 14894 | 3072 | 23444 | 1784 |
| 2012 | 13 | Imperial Bank Ltd | 3648 | 20057 | 3752 | 33283 | 3841 |
| 2013 | 13 | Imperial Bank Ltd | 4663 | 31709 | 4755 | 0 | 0 |
| 2014 | 13 | Imperial Bank Ltd | 6564 | 43219 | 6634 | 0 | 0 |
| 2015 | 13 | Imperial Bank Ltd | 0 | 0 | 0 | 0 | 0 |
| 2006 | 14 | Kenya Commercial Bank Ltd | 9169 | 58218 | 9169 | 0 | 0 |
| 2007 | 14 | Kenya Commercial Bank Ltd | 10046 | 73813 | 10046 | 0 | 0 |
| 2008 | 14 | Kenya Commercial Bank Ltd | 16187 | 104752 | 16187 | 170174 | 2970 |
| 2009 | 14 | Kenya Commercial Bank Ltd | 17674 | 119238 | 17674 | 172207 | 3499 |
| 2010 | 14 | Kenya Commercial Bank Ltd | 35221 | 152311 | 35280 | 212226 | 3464 |
| 2011 | 14 | Kenya Commercial Bank Ltd | 38403 | 192939 | 39920 | 286351 | 4616 |
| 2012 | 14 | Kenya Commercial Bank Ltd | 42125 | 197734 | 44925 | 314039 | 12445 |
| 2013 | 14 | Kenya Commercial Bank Ltd | 50905 | 272565 | 61199 | 327496 | 8629 |
| 2014 | 14 | Kenya Commercial Bank Ltd | 57805 | 338877 | 71210 | 414704 | 11527 |
| 2015 | 14 | Kenya Commercial Bank Ltd | 56103 | 397490 | 61072 | 476840 | 17147 |
| 2006 | 15 | National Bank of Kenya Ltd | 3368 | 29357 | 3488 | 0 | 0 |
| 2007 | 15 | National Bank of Kenya Ltd | 4442 | 11935 | 4615 | 0 | 0 |
| 2008 | 15 | National Bank of Kenya Ltd | 5672 | 14700 | 5867 | 36487 | 821 |
| 2009 | 15 | National Bank of Kenya Ltd | 7099 | 17377 | 7396 | 43496 | 1152 |
| 2010 | 15 | National Bank of Kenya Ltd | 9082 | 25591 | 9447 | 50097 | 1064 |
| 2011 | 15 | National Bank of Kenya Ltd | 9576 | 34286 | 10004 | 58208 | 1376 |
| 2012 | 15 | National Bank of Kenya Ltd | 9622 | 35280 | 10027 | 56704 | 3655 |
| 2013 | 15 | National Bank of Kenya Ltd | 10312 | 45333 | 10948 | 80667 | 2527 |
| 2014 | 15 | National Bank of Kenya Ltd | 10343 | 80433 | 11206 | 110867 | 3899 |
| 2015 | 15 | National Bank of Kenya Ltd | 9784 | 75266 | 10531 | 114386 | 5850 |
| 2006 | 16 | National Industrial Credit Bank Ltd | 2700 | 20303 | 2876 | 23026 | 911 |
| 2007 | 16 | National Industrial Credit Bank Ltd | 4058 | 25625 | 4287 | 26543 | 1159 |
| 2008 | 16 | National Industrial Credit Bank Ltd | 5070 | 35679 | 5398 | 37053 | 1732 |
| 2009 | 16 | National Industrial Credit Bank Ltd | 5382 | 36885 | 5711 | 40765 | 2011 |
| 2010 | 16 | National Industrial Credit Bank Ltd | 6874 | 46955 | 7283 | 50660 | 1543 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2011 | 16 | National Industrial Credit Bank Ltd | 9073 | 60555 | 9623 | 68461 | 2552 |
| 2012 | 16 | National Industrial Credit Bank Ltd | 12569 | 80565 | 13246 | 92866 | 5983 |
| 2013 | 16 | National Industrial Credit Bank Ltd | 14108 | 95220 | 14108 | 103493 | 4374 |
| 2014 | 16 | National Industrial Credit Bank Ltd | 18826 | 131045 | 27340 | 122429 | 5712 |
| 2015 | 16 | National Industrial Credit Bank Ltd | 21529 | 148256 | 30357 | 139442 | 7271 |
| 2006 | 17 | Oriental Commercial Bank Ltd | 673 | 1125 | 673 | 0 | 0 |
| 2007 | 17 | Oriental Commercial Bank Ltd | 819 | 1357 | 819 | 0 | 0 |
| 2008 | 17 | Oriental Commercial Bank Ltd | 791 | 1491 | 809 | 0 | 0 |
| 2009 | 17 | Oriental Commercial Bank Ltd | 824 | 2109 | 850 | 2070 | 98 |
| 2010 | 17 | Oriental Commercial Bank Ltd | 969 | 2789 | 1004 | 3420 | 192 |
| 2011 | 17 | Oriental Commercial Bank Ltd | 1074 | 3156 | 1113 | 3740 | 265 |
| 2012 | 17 | Oriental Commercial Bank Ltd | 1139 | 3939 | 1188 | 4835 | 573 |
| 2013 | 17 | Oriental Commercial Bank Ltd | 1316 | 4510 | 1372 | 5482 | 433 |
| 2014 | 17 | Oriental Commercial Bank Ltd | 1387 | 5659 | 1450 | 6261 | 556 |
| 2015 | 17 | Oriental Commercial Bank Ltd | 2031 | 6172 | 2108 | 6256 | 673 |
| 2006 | 18 | Paramount-Universal Bank Ltd | 415 | 1278 | 415 | 0 | 0 |
| 2007 | 18 | Paramount-Universal Bank Ltd | 415 | 1278 | 415 | 0 | 0 |
| 2008 | 18 | Paramount-Universal Bank Ltd | 483 | 1173 | 492 | 0 | 0 |
| 2009 | 18 | Paramount-Universal Bank Ltd | 512 | 1548 | 527 | 0 | 0 |
| 2010 | 18 | Paramount-Universal Bank Ltd | 768 | 1655 | 785 | 0 | 0 |
| 2011 | 18 | Paramount-Universal Bank Ltd | 1003 | 1900 | 1026 | 0 | 0 |
| 2012 | 18 | Paramount-Universal Bank Ltd | 1106 | 2390 | 1136 | 6118 | 556 |
| 2013 | 18 | Paramount-Universal Bank Ltd | 1175 | 2914 | 1220 | 6798 | 666 |
| 2014 | 18 | Paramount-Universal Bank Ltd | 1314 | 5404 | 1376 | 9024 | 681 |
| 2015 | 18 | Paramount-Universal Bank Ltd | 1450 | 6349 | 1532 | 8989 | 784 |
| 2006 | 19 | Standard Chartered Bank Ltd | 8368 | 45667 | 8623 | 70884 | 0 |
| 2007 | 19 | Standard Chartered Bank Ltd | 8967 | 55065 | 9199 | 80205 | 0 |
| 2008 | 19 | Standard Chartered Bank Ltd | 9332 | 59276 | 9605 | 87520 | 1568 |
| 2009 | 19 | Standard Chartered Bank Ltd | 10656 | 75462 | 10915 | 109861 | 2010 |
| 2010 | 19 | Standard Chartered Bank Ltd | 11394 | 81936 | 11729 | 122415 | 1662 |
| 2011 | 19 | Standard Chartered Bank Ltd | 14122 | 114760 | 16414 | 143352 | 2159 |
| 2012 | 19 | Standard Chartered Bank Ltd | 21623 | 132652 | 23929 | 164599 | 5633 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2013 | 19 | Standard Chartered Bank Ltd | 25831 | 147682 | 30721 | 184184 | 5125 |
| 2014 | 19 | Standard Chartered Bank Ltd | 28944 | 183105 | 36288 | 181837 | 4441 |
| 2015 | 19 | Standard Chartered Bank Ltd | 33259 | 189747 | 40147 | 192713 | 5007 |
| 2006 | 20 | Transnational Bank Ltd | 1104 | 1688 | 1104 | 0 | 0 |
| 2007 | 20 | Transnational Bank Ltd | 1062 | 1782 | 1083 | 0 | 0 |
| 2008 | 20 | Transnational Bank Ltd | 1216 | 1865 | 1235 | 0 | 0 |
| 2009 | 20 | Transnational Bank Ltd | 1305 | 1850 | 1325 | 2039 | 80 |
| 2010 | 20 | Transnational Bank Ltd | 1518 | 2182 | 1541 | 3221 | 97 |
| 2011 | 20 | Transnational Bank Ltd | 1711 | 3707 | 1738 | 5543 | 168 |
| 2012 | 20 | Transnational Bank Ltd | 1790 | 4718 | 1825 | 6967 | 433 |
| 2013 | 20 | Transnational Bank Ltd | 1807 | 5956 | 1869 | 7788 | 394 |
| 2014 | 20 | Transnational Bank Ltd | 1814 | 8824 | 1915 | 8325 | 485 |
| 2015 | 20 | Transnational Bank Ltd | 1928 | 9473 | 2033 | 8419 | 584 |

Source: CBK 2006,2007,2008,2009,2010,2011,2012,2013,2014,2015

Table 4.15

*Variables Measurements*

| Year | ID | Bank | Overheads | Non-interest income | Sectorial Lending 1 | Sectorial Lending 2 | Sectorial Lending 3 |
|---|---|---|---|---|---|---|---|
| 2006 | 1 | Barclays Bank Of Kenya Ltd | 7767 | 6187 | 0.15 | 0.07 | 0.13 |
| 2007 | 1 | Barclays Bank Of Kenya Ltd | 11095 | 7479 | 0.12 | 0.06 | 0.14 |
| 2008 | 1 | Barclays Bank Of Kenya Ltd | 14329 | 9617 | 0.1 | 0.06 | 0.1 |
| 2009 | 1 | Barclays Bank Of Kenya Ltd | 13882 | 8627 | 0.07 | 0.06 | 0.08 |
| 2010 | 1 | Barclays Bank Of Kenya Ltd | 14049 | 10351 | 0.06 | 0.05 | 0.01 |
| 2011 | 1 | Barclays Bank Of Kenya Ltd | 13539 | 10003 | 0.09 | 0.03 | 0.01 |
| 2012 | 1 | Barclays Bank Of Kenya Ltd | 14260 | 9279 | 0.16 | 0.04 | 0 |
| 2013 | 1 | Barclays Bank Of Kenya Ltd | 15565 | 9062 | 0.09 | 0.01 | 0 |
| 2014 | 1 | Barclays Bank Of Kenya Ltd | 14590 | 8684 | 0.12 | 0.11 | 0.04 |
| 2015 | 1 | Barclays Bank Of Kenya Ltd | 15622 | 9051 | 0.14 | 0.11 | 0.05 |
| 2006 | 2 | Cooperative Bank of Kenya Ltd | 4236 | 3578 | 0 | 0.17 | 0 |
| 2007 | 2 | Cooperative Bank of Kenya Ltd | 5257 | 3426 | 0 | 0.06 | 0 |
| 2008 | 2 | Cooperative Bank of Kenya Ltd | 5888 | 3954 | 0 | 0 | 0 |
| 2009 | 2 | Cooperative Bank of Kenya Ltd | 7354 | 4664 | 0.02 | 0 | 0 |
| 2010 | 2 | Cooperative Bank of Kenya Ltd | 9231 | 6168 | 0.05 | 0.09 | 0.22 |
| 2011 | 2 | Cooperative Bank of Kenya Ltd | 11417 | 6451 | 0.05 | 0.06 | 0.21 |
| 2012 | 2 | Cooperative Bank of Kenya Ltd | 13171 | 10200 | 0.08 | 0.11 | 0.04 |
| 2013 | 2 | Cooperative Bank of Kenya Ltd | 16605 | 12021 | 0.07 | 0.13 | 0.04 |
| 2014 | 2 | Cooperative Bank of Kenya Ltd | 20265 | 12951 | 0.09 | 0.16 | 0.05 |
| 2015 | 2 | Cooperative Bank of Kenya Ltd | 19372 | 16607 | 0.11 | 0.16 | 0.07 |
| 2006 | 3 | African Banking Corporation Ltd | 0 | 0 | 0 | 0 | 0 |
| 2007 | 3 | African Banking Corporation Ltd | 0 | 0 | 0 | 0 | 0 |
| 2008 | 3 | African Banking Corporation Ltd | 0 | 0 | 0 | 0 | 0 |
| 2009 | 3 | African Banking Corporation Ltd | 0 | 0 | 0 | 0 | 0 |
| 2010 | 3 | African Banking Corporation Ltd | 601 | 434 | 0.12 | 0.26 | 0.16 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2011 | 3 | African Banking Corporation Ltd | 714 | 474 | 0.16 | 0.26 | 0.13 |
| 2012 | 3 | African Banking Corporation Ltd | 844 | 490 | 0.08 | 0.4 | 0.13 |
| 2013 | 3 | African Banking Corporation Ltd | 1125 | 517 | 0.05 | 0.31 | 0.1 |
| 2014 | 3 | African Banking Corporation Ltd | 1414 | 533 | 0.03 | 0.32 | 0.09 |
| 2015 | 3 | African Banking Corporation Ltd | 1358 | 463 | 0.04 | 0.26 | 0.07 |
| 2006 | 4 | Bank of Africa Ltd | 357 | 130 | 0.4 | 0.28 | 0.12 |
| 2007 | 4 | Bank of Africa Ltd | 416 | 209 | 0.34 | 0.24 | 0.12 |
| 2008 | 4 | Bank of Africa Ltd | 1042 | 578 | 0.32 | 0.15 | 0.1 |
| 2009 | 4 | Bank of Africa Ltd | 1405 | 755 | 0.12 | 0.2 | 0.08 |
| 2010 | 4 | Bank of Africa Ltd | 1732 | 884 | 0.28 | 0.18 | 0.05 |
| 2011 | 4 | Bank of Africa Ltd | 2290 | 1081 | 0.28 | 0.14 | 0.04 |
| 2012 | 4 | Bank of Africa Ltd | 2905 | 1235 | 0.24 | 0.17 | 0.05 |
| 2013 | 4 | Bank of Africa Ltd | 3383 | 1440 | 0.23 | 0.16 | 0.05 |
| 2014 | 4 | Bank of Africa Ltd | 2639 | 888 | 0.19 | 0.22 | 0.03 |
| 2015 | 4 | Bank of Africa Ltd | 2911 | 1122 | 0.19 | 0.16 | 0.03 |
| 2006 | 5 | Bank of Baroda | 0 | 0 | 0 | 0 | 0 |
| 2007 | 5 | Bank of Baroda | 0 | 0 | 0 | 0 | 0 |
| 2008 | 5 | Bank of Baroda | 0 | 0 | 0 | 0 | 0 |
| 2009 | 5 | Bank of Baroda | 0 | 0 | 0 | 0 | 0 |
| 2010 | 5 | Bank of Baroda | 0 | 0 | 0 | 0 | 0 |
| 2011 | 5 | Bank of Baroda | 579 | 169 | 0.03 | 0.3 | 0.07 |
| 2012 | 5 | Bank of Baroda | 792 | 319 | 0.03 | 0.28 | 0.09 |
| 2013 | 5 | Bank of Baroda | 743 | 275 | 0.03 | 0.25 | 0.12 |
| 2014 | 5 | Bank of Baroda | 851 | 255 | 0.02 | 0.2 | 0.14 |
| 2015 | 5 | Bank of Baroda | 960 | 339 | 0.02 | 0.23 | 0.09 |
| 2006 | 6 | Commercial Bank of Africa Ltd | 0 | 0 | 0 | 0 | 0 |
| 2007 | 6 | Commercial Bank of Africa Ltd | 0 | 0 | 0 | 0 | 0 |
| 2008 | 6 | Commercial Bank of Africa Ltd | 0 | 0 | 0 | 0 | 0 |
| 2009 | 6 | Commercial Bank of Africa Ltd | 0 | 0 | 0 | 0 | 0 |
| 2010 | 6 | Commercial Bank of Africa Ltd | 0 | 0 | 0 | 0 | 0 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2011 | 6 | Commercial Bank of Africa Ltd | 3916 | 2967 | 0.26 | 0.15 | 0.03 |
| 2012 | 6 | Commercial Bank of Africa Ltd | 4485 | 3576 | 0.22 | 0.22 | 0.16 |
| 2013 | 6 | Commercial Bank of Africa Ltd | 6071 | 4361 | 0.23 | 0.21 | 0.07 |
| 2014 | 6 | Commercial Bank of Africa Ltd | 8504 | 5212 | 0 | 0 | 0 |
| 2015 | 6 | Commercial Bank of Africa Ltd | 0 | 0 | 0 | 0 | 0 |
| 2006 | 7 | Consolidated Bank of Kenya Ltd | 429 | 238 | 0.18 | 0.38 | 0.04 |
| 2007 | 7 | Consolidated Bank of Kenya Ltd | 497 | 304 | 0.16 | 0.34 | 0.02 |
| 2008 | 7 | Consolidated Bank of Kenya Ltd | 552 | 333 | 0.11 | 0.31 | 0.08 |
| 2009 | 7 | Consolidated Bank of Kenya Ltd | 689 | 394 | 0.07 | 0.44 | 0.11 |
| 2010 | 7 | Consolidated Bank of Kenya Ltd | 873 | 628 | 0.07 | 0.41 | 0.07 |
| 2011 | 7 | Consolidated Bank of Kenya Ltd | 1159 | 622 | 0.05 | 0.38 | 0.07 |
| 2012 | 7 | Consolidated Bank of Kenya Ltd | 1179 | 590 | 0.05 | 0.37 | 0.07 |
| 2013 | 7 | Consolidated Bank of Kenya Ltd | 1254 | 444 | 0.03 | 0.39 | 0.06 |
| 2014 | 7 | Consolidated Bank of Kenya Ltd | 1207 | 467 | 0.04 | 0.32 | 0.07 |
| 2015 | 7 | Consolidated Bank of Kenya Ltd | 0 | 0 | 0 | 0 | 0 |
| 2006 | 8 | Diamond Trust Bank Kenya Ltd | 0 | 0 | 0 | 0 | 0 |
| 2007 | 8 | Diamond Trust Bank Kenya Ltd | 0 | 0 | 0 | 0 | 0 |
| 2008 | 8 | Diamond Trust Bank Kenya Ltd | 0 | 0 | 0 | 0 | 0 |
| 2009 | 8 | Diamond Trust Bank Kenya Ltd | 2762 | 1548 | 0.1 | 0.24 | 0.15 |
| 2010 | 8 | Diamond Trust Bank Kenya Ltd | 3671 | 2874 | 0.09 | 0.23 | 0.14 |
| 2011 | 8 | Diamond Trust Bank Kenya Ltd | 4583 | 2744 | 0.09 | 0.21 | 0.11 |
| 2012 | 8 | Diamond Trust Bank Kenya Ltd | 5188 | 3074 | 0.11 | 0.23 | 0.09 |
| 2013 | 8 | Diamond Trust Bank Kenya Ltd | 6222 | 3349 | 0.11 | 0.23 | 0.09 |
| 2014 | 8 | Diamond Trust Bank Kenya Ltd | 7196 | 3776 | 0.13 | 0.22 | 0.08 |
| 2015 | 8 | Diamond Trust Bank Kenya Ltd | 8171 | 4697 | 0.13 | 0.21 | 0.07 |
| 2006 | 9 | Equity Bank Ltd | 0 | 0 | 0 | 0 | 0 |
| 2007 | 9 | Equity Bank Ltd | 0 | 0 | 0 | 0 | 0 |
| 2008 | 9 | Equity Bank Ltd | 0 | 0 | 0 | 0 | 0 |
| 2009 | 9 | Equity Bank Ltd | 0 | 0 | 0 | 0 | 0 |
| 2010 | 9 | Equity Bank Ltd | 13201 | 10438 | 0 | 0 | 0 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2011 | 9 | Equity Bank Ltd | 15990 | 12447 | 0 | 0 | 0 |
| 2012 | 9 | Equity Bank Ltd | 19578 | 12863 | 0.13 | 0.12 | 0.17 |
| 2013 | 9 | Equity Bank Ltd | 22710 | 15370 | 0.19 | 0.12 | 0.15 |
| 2014 | 9 | Equity Bank Ltd | 26348 | 18474 | 0.24 | 0.12 | 0.12 |
| 2015 | 9 | Equity Bank Ltd | 32104 | 21939 | 0.26 | 0.12 | 0.15 |
| 2006 | 10 | Family Bank Ltd | 0 | 0 | 0 | 0 | 0 |
| 2007 | 10 | Family Bank Ltd | 0 | 0 | 0 | 0 | 0 |
| 2008 | 10 | Family Bank Ltd | 706 | 776 | 0.02 | 0.01 | 0.3 |
| 2009 | 10 | Family Bank Ltd | 819 | 777 | 0.02 | 0 | 0.09 |
| 2010 | 10 | Family Bank Ltd | 2275 | 1448 | 0.02 | 0.32 | 0.05 |
| 2011 | 10 | Family Bank Ltd | 2906 | 1411 | 0 | 0.52 | 0.08 |
| 2012 | 10 | Family Bank Ltd | 3215 | 1438 | 0.01 | 0.27 | 0.06 |
| 2013 | 10 | Family Bank Ltd | 4196 | 1852 | 0.01 | 0.28 | 0.05 |
| 2014 | 10 | Family Bank Ltd | 4957 | 8012 | 0 | 0.31 | 0.16 |
| 2015 | 10 | Family Bank Ltd | 6207 | 9376 | 0 | 0.26 | 0.11 |
| 2006 | 11 | Giro Commercial Bank Ltd | 0 | 0 | 0 | 0 | 0 |
| 2007 | 11 | Giro Commercial Bank Ltd | 0 | 0 | 0 | 0 | 0 |
| 2008 | 11 | Giro Commercial Bank Ltd | 0 | 0 | 0 | 0 | 0 |
| 2009 | 11 | Giro Commercial Bank Ltd | 322 | 159 | 0.12 | 0.23 | 0.06 |
| 2010 | 11 | Giro Commercial Bank Ltd | 380 | 635 | 0.1 | 0.12 | 0.13 |
| 2011 | 11 | Giro Commercial Bank Ltd | 392 | 150 | 0.09 | 0.19 | 0.07 |
| 2012 | 11 | Giro Commercial Bank Ltd | 406 | 127 | 0.1 | 0.16 | 0.09 |
| 2013 | 11 | Giro Commercial Bank Ltd | 442 | 111 | 0.08 | 0.11 | 0.11 |
| 2014 | 11 | Giro Commercial Bank Ltd | 451 | 187 | 0.11 | 0.2 | 0.13 |
| 2015 | 11 | Giro Commercial Bank Ltd | 473 | 137 | 0.12 | 0.16 | 0.12 |
| 2006 | 12 | Investment & Mortgages Bank Ltd | 788 | 482 | 0 | 0 | 0 |
| 2007 | 12 | Investment & Mortgages Bank Ltd | 1062 | 648 | 0 | 0 | 0 |
| 2008 | 12 | Investment & Mortgages Bank Ltd | 1447 | 1830 | 0 | 0 | 0 |
| 2009 | 12 | Investment & Mortgages Bank Ltd | 1581 | 1010 | 0.22 | 0.1 | 0.13 |
| 2010 | 12 | Investment & Mortgages Bank Ltd | 2152 | 2146 | 0.23 | 0.08 | 0.09 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2011 | 12 | Investment & Mortgages Bank Ltd | 2755 | 2396 | 0.25 | 0.1 | 0.09 |
| 2012 | 12 | Investment & Mortgages Bank Ltd | 4120 | 3352 | 0.26 | 0.1 | 0.09 |
| 2013 | 12 | Investment & Mortgages Bank Ltd | 4663 | 3437 | 0.24 | 0.03 | 0.09 |
| 2014 | 12 | Investment & Mortgages Bank Ltd | 3960 | 2996 | 0.22 | 0.05 | 0.1 |
| 2015 | 12 | Investment & Mortgages Bank Ltd | 5023 | 3449 | 0.24 | 0.05 | 0.1 |
| 2006 | 13 | Imperial Bank Ltd | 613 | 279 | 0 | 0 | 0 |
| 2007 | 13 | Imperial Bank Ltd | 834 | 482 | 0 | 0 | 0 |
| 2008 | 13 | Imperial Bank Ltd | 910 | 467 | 0.06 | 0.08 | 0.15 |
| 2009 | 13 | Imperial Bank Ltd | 1027 | 522 | 0.09 | 0.08 | 0.17 |
| 2010 | 13 | Imperial Bank Ltd | 0 | 860 | 0.11 | 0.18 | 0.14 |
| 2011 | 13 | Imperial Bank Ltd | 0 | 890 | 0.09 | 0.1 | 0.13 |
| 2012 | 13 | Imperial Bank Ltd | 0 | 1145 | 0.11 | 0.07 | 0.12 |
| 2013 | 13 | Imperial Bank Ltd | 0 | 0 | 0 | 0 | 0 |
| 2014 | 13 | Imperial Bank Ltd | 0 | 0 | 0 | 0 | 0 |
| 2015 | 13 | Imperial Bank Ltd | 0 | 0 | 0 | 0 | 0 |
| 2006 | 14 | Kenya Commercial Bank Ltd | 0 | 0 | 0 | 0 | 0 |
| 2007 | 14 | Kenya Commercial Bank Ltd | 0 | 0 | 0 | 0 | 0 |
| 2008 | 14 | Kenya Commercial Bank Ltd | 12006 | 7652 | 0 | 0 | 0.16 |
| 2009 | 14 | Kenya Commercial Bank Ltd | 15575 | 8125 | 0 | 0 | 0.17 |
| 2010 | 14 | Kenya Commercial Bank Ltd | 20863 | 11016 | 0 | 0 | 0 |
| 2011 | 14 | Kenya Commercial Bank Ltd | 24778 | 16022 | 0 | 0 | 0 |
| 2012 | 14 | Kenya Commercial Bank Ltd | 29048 | 15620 | 0 | 0 | 0.17 |
| 2013 | 14 | Kenya Commercial Bank Ltd | 29986 | 14878 | 0 | 0 | 0.19 |
| 2014 | 14 | Kenya Commercial Bank Ltd | 34162 | 22001 | 0 | 0 | 0.19 |
| 2015 | 14 | Kenya Commercial Bank Ltd | 35024 | 22267 | 0 | 0 | 0.18 |
| 2006 | 15 | National Bank of Kenya Ltd | 0 | 0 | 0 | 0 | 0 |
| 2007 | 15 | National Bank of Kenya Ltd | 0 | 0 | 0 | 0 | 0 |
| 2008 | 15 | National Bank of Kenya Ltd | 2904 | 2101 | 0.11 | 0.16 | 0.12 |
| 2009 | 15 | National Bank of Kenya Ltd | 3433 | 2404 | 0.05 | 0.17 | 0.09 |
| 2010 | 15 | National Bank of Kenya Ltd | 4039 | 2733 | 0.04 | 0.15 | 0.09 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2011 | 15 | National Bank of Kenya Ltd | 4658 | 2714 | 0.03 | 0.19 | 0.07 |
| 2012 | 15 | National Bank of Kenya Ltd | 5737 | 2835 | 0.06 | 0.12 | 0.07 |
| 2013 | 15 | National Bank of Kenya Ltd | 6395 | 2857 | 0.07 | 0.18 | 0.14 |
| 2014 | 15 | National Bank of Kenya Ltd | 6977 | 3136 | 0.04 | 0.15 | 0.17 |
| 2015 | 15 | National Bank of Kenya Ltd | 7473 | 3157 | 0.03 | 0.24 | 0.19 |
| 2006 | 16 | National Industrial Credit Bank Ltd | 1159 | 515 | 0 | 0 | 0 |
| 2007 | 16 | National Industrial Credit Bank Ltd | 1226 | 736 | 0.07 | 0.06 | 0.07 |
| 2008 | 16 | National Industrial Credit Bank Ltd | 1485 | 1149 | 0.1 | 0.04 | 0.09 |
| 2009 | 16 | National Industrial Credit Bank Ltd | 1850 | 1427 | 0.13 | 0.04 | 0.06 |
| 2010 | 16 | National Industrial Credit Bank Ltd | 2288 | 1814 | 0.17 | 0.03 | 0.05 |
| 2011 | 16 | National Industrial Credit Bank Ltd | 2739 | 2323 | 0.11 | 0.04 | 0.08 |
| 2012 | 16 | National Industrial Credit Bank Ltd | 3500 | 2832 | 0.11 | 0.03 | 0.06 |
| 2013 | 16 | National Industrial Credit Bank Ltd | 4320 | 3155 | 0.25 | 0.18 | 0.11 |
| 2014 | 16 | National Industrial Credit Bank Ltd | 4946 | 3508 | 0.26 | 0.24 | 0.16 |
| 2015 | 16 | National Industrial Credit Bank Ltd | 5648 | 3955 | 0.25 | 0.27 | 0.12 |
| 2006 | 17 | Oriental Commercial Bank Ltd | 0 | 0 | 0 | 0 | 0 |
| 2007 | 17 | Oriental Commercial Bank Ltd | 0 | 0 | 0 | 0 | 0 |
| 2008 | 17 | Oriental Commercial Bank Ltd | 0 | 0 | 0 | 0 | 0 |
| 2009 | 17 | Oriental Commercial Bank Ltd | 157 | 10 | 0.03 | 0.69 | 0.03 |
| 2010 | 17 | Oriental Commercial Bank Ltd | 226 | 173 | 0.06 | 0.23 | 0.05 |
| 2011 | 17 | Oriental Commercial Bank Ltd | 244 | 151 | 0.04 | 0.22 | 0.02 |
| 2012 | 17 | Oriental Commercial Bank Ltd | 241 | 93 | 0.04 | 0.23 | 0.02 |
| 2013 | 17 | Oriental Commercial Bank Ltd | 304 | 79 | 0.01 | 0.11 | 0.02 |
| 2014 | 17 | Oriental Commercial Bank Ltd | 390 | 85 | 0.01 | 0.05 | 0.06 |
| 2015 | 17 | Oriental Commercial Bank Ltd | 461 | 84 | 0.02 | 0.04 | 0.02 |
| 2006 | 18 | Paramount-Universal Bank Ltd | 0 | 0 | 0 | 0 | 0 |
| 2007 | 18 | Paramount-Universal Bank Ltd | 0 | 0 | 0 | 0 | 0 |
| 2008 | 18 | Paramount-Universal Bank Ltd | 0 | 0 | 0 | 0 | 0 |
| 2009 | 18 | Paramount-Universal Bank Ltd | 0 | 0 | 0 | 0 | 0 |
| 2010 | 18 | Paramount-Universal Bank Ltd | 0 | 0 | 0 | 0 | 0 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2011 | 18 | Paramount-Universal Bank Ltd | 0 | 0 | 0 | 0 | 0 |
| 2012 | 18 | Paramount-Universal Bank Ltd | 217 | 193 | 0.27 | 0.05 | 0.17 |
| 2013 | 18 | Paramount-Universal Bank Ltd | 228 | 38 | 0.2 | 0.05 | 0.16 |
| 2014 | 18 | Paramount-Universal Bank Ltd | 286 | 121 | 0.31 | 0.07 | 0.18 |
| 2015 | 18 | Paramount-Universal Bank Ltd | 331 | -44 | 0.25 | 0.05 | 0.19 |
| 2006 | 19 | Standard Chartered Bank Ltd | 3617 | 0 | 0 | 0 | 0 |
| 2007 | 19 | Standard Chartered Bank Ltd | 4433 | 0 | 0 | 0 | 0 |
| 2008 | 19 | Standard Chartered Bank Ltd | 5024 | 4232 | 0.03 | 0.26 | 0.22 |
| 2009 | 19 | Standard Chartered Bank Ltd | 5043 | 4909 | 0.05 | 0.11 | 0.07 |
| 2010 | 19 | Standard Chartered Bank Ltd | 5888 | 5787 | 0.04 | 0.14 | 0.11 |
| 2011 | 19 | Standard Chartered Bank Ltd | 7245 | 6062 | 0.02 | 0.15 | 0.11 |
| 2012 | 19 | Standard Chartered Bank Ltd | 8398 | 6929 | 0.02 | 0.2 | 0.12 |
| 2013 | 19 | Standard Chartered Bank Ltd | 9279 | 7016 | 0.02 | 0.21 | 0.16 |
| 2014 | 19 | Standard Chartered Bank Ltd | 10193 | 8286 | 0.05 | 0.18 | 0.19 |
| 2015 | 19 | Standard Chartered Bank Ltd | 11062 | 7212 | 0.02 | 0.2 | 0.15 |
| 2006 | 20 | Transnational Bank Ltd | 0 | 0 | 0 | 0 | 0 |
| 2007 | 20 | Transnational Bank Ltd | 0 | 0 | 0 | 0 | 0 |
| 2008 | 20 | Transnational Bank Ltd | 0 | 0 | 0 | 0 | 0 |
| 2009 | 20 | Transnational Bank Ltd | 362 | 149 | 0.04 | 0.04 | 0.09 |
| 2010 | 20 | Transnational Bank Ltd | 438 | 310 | 0.03 | 0.08 | 0.12 |
| 2011 | 20 | Transnational Bank Ltd | 482 | 309 | 0.13 | 0.09 | 0.11 |
| 2012 | 20 | Transnational Bank Ltd | 593 | 415 | 0.16 | 0.11 | 0.15 |
| 2013 | 20 | Transnational Bank Ltd | 681 | 215 | 0.18 | 0.12 | 0.15 |
| 2014 | 20 | Transnational Bank Ltd | 680 | 185 | 0.21 | 0.11 | 0.12 |
| 2015 | 20 | Transnational Bank Ltd | 758 | 225 | 0.25 | 0.1 | 0.09 |

Source: CBK 2006,2007,2008,2009,2010,2011,2012,2013,2014,2015

Table 4.16

*Variables Measurements*

| Year | ID | Bank | Sectorial Lending 4 | Sectorial Lending 5 | Sectorial Lending 6 | Sectorial Lending 7 |
|---|---|---|---|---|---|---|
| 2006 | 1 | Barclays Bank Of Kenya Ltd | 0.02 | 0.02 | 0.39 | 0.22 |
| 2007 | 1 | Barclays Bank Of Kenya Ltd | 0.02 | 0.01 | 0.47 | 0.18 |
| 2008 | 1 | Barclays Bank Of Kenya Ltd | 0.02 | 0.01 | 0.44 | 0.27 |
| 2009 | 1 | Barclays Bank Of Kenya Ltd | 0.01 | 0.01 | 0.52 | 0.25 |
| 2010 | 1 | Barclays Bank Of Kenya Ltd | 0.03 | 0.02 | 0.48 | 0.35 |
| 2011 | 1 | Barclays Bank Of Kenya Ltd | 0 | 0 | 0.5 | 0.34 |
| 2012 | 1 | Barclays Bank Of Kenya Ltd | 0 | 0 | 0.61 | 0.14 |
| 2013 | 1 | Barclays Bank Of Kenya Ltd | 0 | 0.01 | 0.83 | 0.06 |
| 2014 | 1 | Barclays Bank Of Kenya Ltd | 0 | 0.02 | 0.61 | 0.01 |
| 2015 | 1 | Barclays Bank Of Kenya Ltd | 0 | 0.02 | 0.57 | 0.11 |
| 2006 | 2 | Cooperative Bank of Kenya Ltd | 0.01 | 0.11 | 0.28 | 0.43 |
| 2007 | 2 | Cooperative Bank of Kenya Ltd | 0.02 | 0.08 | 0.34 | 0.49 |
| 2008 | 2 | Cooperative Bank of Kenya Ltd | 0.02 | 0.06 | 0.3 | 0.62 |
| 2009 | 2 | Cooperative Bank of Kenya Ltd | 0 | 0.06 | 0.61 | 0.31 |
| 2010 | 2 | Cooperative Bank of Kenya Ltd | 0.1 | 0.02 | 0.02 | 0.5 |
| 2011 | 2 | Cooperative Bank of Kenya Ltd | 0.12 | 0.04 | 0.06 | 0.46 |
| 2012 | 2 | Cooperative Bank of Kenya Ltd | 0.19 | 0.05 | 0.43 | 0.09 |
| 2013 | 2 | Cooperative Bank of Kenya Ltd | 0.18 | 0.05 | 0.41 | 0.12 |
| 2014 | 2 | Cooperative Bank of Kenya Ltd | 0.16 | 0.04 | 0.37 | 0.12 |
| 2015 | 2 | Cooperative Bank of Kenya Ltd | 0.12 | 0.04 | 0.35 | 0.16 |
| 2006 | 3 | African Banking Corporation Ltd | 0 | 0 | 0 | 0 |
| 2007 | 3 | African Banking Corporation Ltd | 0 | 0 | 0 | 0 |
| 2008 | 3 | African Banking Corporation Ltd | 0 | 0 | 0 | 0 |
| 2009 | 3 | African Banking Corporation Ltd | 0 | 0 | 0 | 0 |
| 2010 | 3 | African Banking Corporation Ltd | 0.09 | 0.15 | 0.11 | 0.11 |
| 2011 | 3 | African Banking Corporation Ltd | 0.09 | 0.26 | 0.07 | 0.03 |
| 2012 | 3 | African Banking Corporation Ltd | 0.1 | 0.2 | 0.04 | 0.05 |
| 2013 | 3 | African Banking Corporation Ltd | 0.14 | 0.3 | 0.02 | 0.08 |
| 2014 | 3 | African Banking Corporation Ltd | 0.14 | 0.13 | 0.03 | 0.26 |
| 2015 | 3 | African Banking Corporation Ltd | 0.16 | 0.23 | 0.07 | 0.17 |
| 2006 | 4 | Bank of Africa Ltd | 0.06 | 0.07 | 0.03 | 0.04 |
| 2007 | 4 | Bank of Africa Ltd | 0.07 | 0.12 | 0.05 | 0.05 |
| 2008 | 4 | Bank of Africa Ltd | 0.1 | 0.18 | 0.06 | 0.08 |
| 2009 | 4 | Bank of Africa Ltd | 0.1 | 0.16 | 0.19 | 0.15 |
| 2010 | 4 | Bank of Africa Ltd | 0.08 | 0.19 | 0.1 | 0.11 |
| 2011 | 4 | Bank of Africa Ltd | 0.11 | 0.2 | 0.14 | 0.09 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2012 | 4 | Bank of Africa Ltd | 0.16 | 0.19 | 0.1 | 0.1 |
| 2013 | 4 | Bank of Africa Ltd | 0.11 | 0.21 | 0.08 | 0.17 |
| 2014 | 4 | Bank of Africa Ltd | 0.16 | 0.17 | 0.09 | 0.14 |
| 2015 | 4 | Bank of Africa Ltd | 0.09 | 0.31 | 0.09 | 0.12 |
| 2006 | 5 | Bank of Baroda | 0 | 0 | 0 | 0 |
| 2007 | 5 | Bank of Baroda | 0 | 0 | 0 | 0 |
| 2008 | 5 | Bank of Baroda | 0 | 0 | 0 | 0 |
| 2009 | 5 | Bank of Baroda | 0 | 0 | 0 | 0 |
| 2010 | 5 | Bank of Baroda | 0 | 0 | 0 | 0 |
| 2011 | 5 | Bank of Baroda | 0.01 | 0.26 | 0.29 | 0.03 |
| 2012 | 5 | Bank of Baroda | 0.01 | 0.29 | 0.27 | 0.03 |
| 2013 | 5 | Bank of Baroda | 0.03 | 0.29 | 0.25 | 0.03 |
| 2014 | 5 | Bank of Baroda | 0.03 | 0.29 | 0.27 | 0.04 |
| 2015 | 5 | Bank of Baroda | 0.02 | 0.28 | 0.28 | 0.08 |
| 2006 | 6 | Commercial Bank of Africa Ltd | 0 | 0 | 0 | 0 |
| 2007 | 6 | Commercial Bank of Africa Ltd | 0 | 0 | 0 | 0 |
| 2008 | 6 | Commercial Bank of Africa Ltd | 0 | 0 | 0 | 0 |
| 2009 | 6 | Commercial Bank of Africa Ltd | 0 | 0 | 0 | 0 |
| 2010 | 6 | Commercial Bank of Africa Ltd | 0 | 0 | 0 | 0 |
| 2011 | 6 | Commercial Bank of Africa Ltd | 0.1 | 0.16 | 0.14 | 0.16 |
| 2012 | 6 | Commercial Bank of Africa Ltd | 0.09 | 0.21 | 0.03 | 0.07 |
| 2013 | 6 | Commercial Bank of Africa Ltd | 0.07 | 0.24 | 0.12 | 0.06 |
| 2014 | 6 | Commercial Bank of Africa Ltd | 0 | 0 | 0 | 0 |
| 2015 | 6 | Commercial Bank of Africa Ltd | 0 | 0 | 0 | 0 |
| 2006 | 7 | Consolidated Bank of Kenya Ltd | 0.04 | 0.28 | 0.08 | 0 |
| 2007 | 7 | Consolidated Bank of Kenya Ltd | 0.06 | 0.34 | 0.08 | 0 |
| 2008 | 7 | Consolidated Bank of Kenya Ltd | 0.04 | 0.23 | 0.2 | 0.03 |
| 2009 | 7 | Consolidated Bank of Kenya Ltd | 0.06 | 0.06 | 0.11 | 0.15 |
| 2010 | 7 | Consolidated Bank of Kenya Ltd | 0.04 | 0.06 | 0.24 | 0.11 |
| 2011 | 7 | Consolidated Bank of Kenya Ltd | 0.03 | 0.03 | 0.3 | 0.14 |
| 2012 | 7 | Consolidated Bank of Kenya Ltd | 0.03 | 0.04 | 0.34 | 0.1 |
| 2013 | 7 | Consolidated Bank of Kenya Ltd | 0.01 | 0.03 | 0.38 | 0.1 |
| 2014 | 7 | Consolidated Bank of Kenya Ltd | 0.02 | 0.03 | 0.42 | 0.11 |
| 2015 | 7 | Consolidated Bank of Kenya Ltd | 0 | 0 | 0 | 0 |
| 2006 | 8 | Diamond Trust Bank Kenya Ltd | 0 | 0 | 0 | 0 |
| 2007 | 8 | Diamond Trust Bank Kenya Ltd | 0 | 0 | 0 | 0 |
| 2008 | 8 | Diamond Trust Bank Kenya Ltd | 0 | 0 | 0 | 0 |
| 2009 | 8 | Diamond Trust Bank Kenya Ltd | 0.11 | 0.23 | 0.1 | 0.07 |
| 2010 | 8 | Diamond Trust Bank Kenya Ltd | 0.15 | 0.22 | 0.12 | 0.05 |
| 2011 | 8 | Diamond Trust Bank Kenya Ltd | 0.16 | 0.25 | 0.11 | 0.07 |
| 2012 | 8 | Diamond Trust Bank Kenya Ltd | 0.14 | 0.23 | 0.14 | 0.06 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2013 | 8 | Diamond Trust Bank Kenya Ltd | 0.17 | 0.25 | 0.08 | 0.07 |
| 2014 | 8 | Diamond Trust Bank Kenya Ltd | 0.13 | 0.3 | 0.08 | 0.06 |
| 2015 | 8 | Diamond Trust Bank Kenya Ltd | 0.18 | 0.28 | 0.08 | 0.05 |
| 2006 | 9 | Equity Bank Ltd | 0 | 0 | 0 | 0 |
| 2007 | 9 | Equity Bank Ltd | 0 | 0 | 0 | 0 |
| 2008 | 9 | Equity Bank Ltd | 0 | 0 | 0 | 0 |
| 2009 | 9 | Equity Bank Ltd | 0 | 0 | 0 | 0 |
| 2010 | 9 | Equity Bank Ltd | 0 | 0 | 0 | 0 |
| 2011 | 9 | Equity Bank Ltd | 0 | 0 | 0 | 0 |
| 2012 | 9 | Equity Bank Ltd | 0.1 | 0.2 | 0.21 | 0.07 |
| 2013 | 9 | Equity Bank Ltd | 0.1 | 0.19 | 0.17 | 0.08 |
| 2014 | 9 | Equity Bank Ltd | 0.08 | 0.19 | 0.17 | 0.08 |
| 2015 | 9 | Equity Bank Ltd | 0.08 | 0.19 | 0.12 | 0.08 |
| 2006 | 10 | Family Bank Ltd | 0 | 0 | 0 | 0 |
| 2007 | 10 | Family Bank Ltd | 0 | 0 | 0 | 0 |
| 2008 | 10 | Family Bank Ltd | 0.14 | 0.12 | 0.24 | 0.16 |
| 2009 | 10 | Family Bank Ltd | 0.16 | 0.25 | 0.25 | 0.23 |
| 2010 | 10 | Family Bank Ltd | 0.02 | 0.01 | 0.24 | 0.33 |
| 2011 | 10 | Family Bank Ltd | 0.03 | 0.03 | 0.22 | 0.11 |
| 2012 | 10 | Family Bank Ltd | 0.04 | 0.02 | 0.12 | 0.48 |
| 2013 | 10 | Family Bank Ltd | 0.02 | 0.03 | 0.09 | 0.52 |
| 2014 | 10 | Family Bank Ltd | 0.04 | 0.01 | 0.15 | 0.33 |
| 2015 | 10 | Family Bank Ltd | 0.04 | 0.01 | 0.12 | 0.45 |
| 2006 | 11 | Giro Commercial Bank Ltd | 0 | 0 | 0 | 0 |
| 2007 | 11 | Giro Commercial Bank Ltd | 0 | 0 | 0 | 0 |
| 2008 | 11 | Giro Commercial Bank Ltd | 0 | 0 | 0 | 0 |
| 2009 | 11 | Giro Commercial Bank Ltd | 0.06 | 0.01 | 0.05 | 0.06 |
| 2010 | 11 | Giro Commercial Bank Ltd | 0.16 | 0.14 | 0.03 | 0.19 |
| 2011 | 11 | Giro Commercial Bank Ltd | 0.13 | 0.19 | 0.18 | 0.15 |
| 2012 | 11 | Giro Commercial Bank Ltd | 0.14 | 0.13 | 0.2 | 0.18 |
| 2013 | 11 | Giro Commercial Bank Ltd | 0.14 | 0.22 | 0.18 | 0.17 |
| 2014 | 11 | Giro Commercial Bank Ltd | 0.13 | 0.26 | 0.04 | 0.13 |
| 2015 | 11 | Giro Commercial Bank Ltd | 0.14 | 0.27 | 0.07 | 0.11 |
| 2006 | 12 | Investment & Mortgages Bank Ltd | 0 | 0 | 0 | 0 |
| 2007 | 12 | Investment & Mortgages Bank Ltd | 0 | 0 | 0 | 0 |
| 2008 | 12 | Investment & Mortgages Bank Ltd | 0 | 0 | 0 | 0 |
| 2009 | 12 | Investment & Mortgages Bank Ltd | 0.07 | 0.16 | 0.12 | 0.18 |
| 2010 | 12 | Investment & Mortgages Bank Ltd | 0.05 | 0.22 | 0.1 | 0.23 |
| 2011 | 12 | Investment & Mortgages Bank Ltd | 0.07 | 0.18 | 0.08 | 0.24 |
| 2012 | 12 | Investment & Mortgages Bank Ltd | 0.05 | 0.18 | 0.11 | 0.2 |
| 2013 | 12 | Investment & Mortgages Bank Ltd | 0.05 | 0.17 | 0.19 | 0.22 |

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|---|---|---|---|---|---|---|
| 2014 | 12 | Investment & Mortgages Bank Ltd | 0.03 | 0.19 | 0.22 | 0.19 |
| 2015 | 12 | Investment & Mortgages Bank Ltd | 0.05 | 0.18 | 0.21 | 0.18 |
| 2006 | 13 | Imperial Bank Ltd | 0 | 0 | 0 | 0 |
| 2007 | 13 | Imperial Bank Ltd | 0 | 0 | 0 | 0 |
| 2008 | 13 | Imperial Bank Ltd | 0.62 | 0.02 | 0.04 | 0.03 |
| 2009 | 13 | Imperial Bank Ltd | 0.48 | 0.05 | 0.06 | 0.07 |
| 2010 | 13 | Imperial Bank Ltd | 0.27 | 0.08 | 0.1 | 0.12 |
| 2011 | 13 | Imperial Bank Ltd | 0.38 | 0.07 | 0.1 | 0.13 |
| 2012 | 13 | Imperial Bank Ltd | 0.4 | 0.08 | 0.13 | 0.09 |
| 2013 | 13 | Imperial Bank Ltd | 0 | 0 | 0 | 0 |
| 2014 | 13 | Imperial Bank Ltd | 0 | 0 | 0 | 0 |
| 2015 | 13 | Imperial Bank Ltd | 0 | 0 | 0 | 0 |
| 2006 | 14 | Kenya Commercial Bank Ltd | 0 | 0 | 0 | 0 |
| 2007 | 14 | Kenya Commercial Bank Ltd | 0 | 0 | 0 | 0 |
| 2008 | 14 | Kenya Commercial Bank Ltd | 0.31 | 0.07 | 0.06 | 0.41 |
| 2009 | 14 | Kenya Commercial Bank Ltd | 0.32 | 0.06 | 0.05 | 0.39 |
| 2010 | 14 | Kenya Commercial Bank Ltd | 0 | 0 | 0 | 0 |
| 2011 | 14 | Kenya Commercial Bank Ltd | 0 | 0 | 0 | 0 |
| 2012 | 14 | Kenya Commercial Bank Ltd | 0.26 | 0.04 | 0.13 | 0.39 |
| 2013 | 14 | Kenya Commercial Bank Ltd | 0.3 | 0.03 | 0.15 | 0.33 |
| 2014 | 14 | Kenya Commercial Bank Ltd | 0.19 | 0.04 | 0.12 | 0.47 |
| 2015 | 14 | Kenya Commercial Bank Ltd | 0.18 | 0.04 | 0.11 | 0.5 |
| 2006 | 15 | National Bank of Kenya Ltd | 0 | 0 | 0 | 0 |
| 2007 | 15 | National Bank of Kenya Ltd | 0 | 0 | 0 | 0 |
| 2008 | 15 | National Bank of Kenya Ltd | 0.1 | 0.18 | 0.15 | 0.18 |
| 2009 | 15 | National Bank of Kenya Ltd | 0.11 | 0.15 | 0.16 | 0.26 |
| 2010 | 15 | National Bank of Kenya Ltd | 0.1 | 0.16 | 0.13 | 0.34 |
| 2011 | 15 | National Bank of Kenya Ltd | 0.13 | 0.12 | 0.19 | 0.28 |
| 2012 | 15 | National Bank of Kenya Ltd | 0.12 | 0.22 | 0.23 | 0.18 |
| 2013 | 15 | National Bank of Kenya Ltd | 0.11 | 0.3 | 0.13 | 0.07 |
| 2014 | 15 | National Bank of Kenya Ltd | 0.03 | 0.24 | 0.35 | 0.02 |
| 2015 | 15 | National Bank of Kenya Ltd | 0.06 | 0.2 | 0.27 | 0.01 |
| 2006 | 16 | National Industrial Credit Bank Ltd | 0 | 0 | 0 | 0 |
| 2007 | 16 | National Industrial Credit Bank Ltd | 0.28 | 0.21 | 0.17 | 0.14 |
| 2008 | 16 | National Industrial Credit Bank Ltd | 0.29 | 0.19 | 0.2 | 0.09 |
| 2009 | 16 | National Industrial Credit Bank Ltd | 0.22 | 0.2 | 0.21 | 0.14 |
| 2010 | 16 | National Industrial Credit Bank Ltd | 0.22 | 0.22 | 0.18 | 0.13 |
| 2011 | 16 | National Industrial Credit Bank Ltd | 0.15 | 0.22 | 0.16 | 0.24 |
| 2012 | 16 | National Industrial Credit Bank Ltd | 0.19 | 0.23 | 0.13 | 0.25 |
| 2013 | 16 | National Industrial Credit Bank Ltd | 0.1 | 0.07 | 0.04 | 0.25 |
| 2014 | 16 | National Industrial Credit Bank Ltd | 0.1 | 0.06 | 0.02 | 0.16 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2015 | 16 | National Industrial Credit Bank Ltd | 0.16 | 0.05 | 0.02 | 0.13 |
| 2006 | 17 | Oriental Commercial Bank Ltd | 0 | 0 | 0 | 0 |
| 2007 | 17 | Oriental Commercial Bank Ltd | 0 | 0 | 0 | 0 |
| 2008 | 17 | Oriental Commercial Bank Ltd | 0 | 0 | 0 | 0 |
| 2009 | 17 | Oriental Commercial Bank Ltd | 0.01 | 0 | 0.19 | 0.05 |
| 2010 | 17 | Oriental Commercial Bank Ltd | 0.01 | 0.29 | 0.14 | 0.22 |
| 2011 | 17 | Oriental Commercial Bank Ltd | 0.03 | 0.39 | 0.14 | 0.16 |
| 2012 | 17 | Oriental Commercial Bank Ltd | 0.36 | 0.19 | 0.04 | 0.12 |
| 2013 | 17 | Oriental Commercial Bank Ltd | 0.6 | 0.14 | 0.03 | 0.09 |
| 2014 | 17 | Oriental Commercial Bank Ltd | 0.02 | 0.64 | 0.15 | 0.07 |
| 2015 | 17 | Oriental Commercial Bank Ltd | 0.7 | 0.14 | 0.03 | 0.05 |
| 2006 | 18 | Paramount-Universal Bank Ltd | 0 | 0 | 0 | 0 |
| 2007 | 18 | Paramount-Universal Bank Ltd | 0 | 0 | 0 | 0 |
| 2008 | 18 | Paramount-Universal Bank Ltd | 0 | 0 | 0 | 0 |
| 2009 | 18 | Paramount-Universal Bank Ltd | 0 | 0 | 0 | 0 |
| 2010 | 18 | Paramount-Universal Bank Ltd | 0 | 0 | 0 | 0 |
| 2011 | 18 | Paramount-Universal Bank Ltd | 0 | 0 | 0 | 0 |
| 2012 | 18 | Paramount-Universal Bank Ltd | 0.14 | 0.15 | 0.07 | 0.16 |
| 2013 | 18 | Paramount-Universal Bank Ltd | 0.13 | 0.19 | 0.07 | 0.21 |
| 2014 | 18 | Paramount-Universal Bank Ltd | 0.11 | 0.14 | 0.12 | 0.07 |
| 2015 | 18 | Paramount-Universal Bank Ltd | 0.11 | 0.18 | 0.15 | 0.07 |
| 2006 | 19 | Standard Chartered Bank Ltd | 0 | 0 | 0 | 0 |
| 2007 | 19 | Standard Chartered Bank Ltd | 0 | 0 | 0 | 0 |
| 2008 | 19 | Standard Chartered Bank Ltd | 0.16 | 0.1 | 0.18 | 0.06 |
| 2009 | 19 | Standard Chartered Bank Ltd | 0.07 | 0.08 | 0.24 | 0.38 |
| 2010 | 19 | Standard Chartered Bank Ltd | 0.15 | 0.1 | 0.16 | 0.3 |
| 2011 | 19 | Standard Chartered Bank Ltd | 0.22 | 0.08 | 0.16 | 0.26 |
| 2012 | 19 | Standard Chartered Bank Ltd | 0.11 | 0.14 | 0.12 | 0.29 |
| 2013 | 19 | Standard Chartered Bank Ltd | 0.08 | 0.09 | 0.09 | 0.35 |
| 2014 | 19 | Standard Chartered Bank Ltd | 0.03 | 0.09 | 0.06 | 0.41 |
| 2015 | 19 | Standard Chartered Bank Ltd | 0.05 | 0.07 | 0.08 | 0.43 |
| 2006 | 20 | Transnational Bank Ltd | 0 | 0 | 0 | 0 |
| 2007 | 20 | Transnational Bank Ltd | 0 | 0 | 0 | 0 |
| 2008 | 20 | Transnational Bank Ltd | 0 | 0 | 0 | 0 |
| 2009 | 20 | Transnational Bank Ltd | 0.11 | 0.12 | 0.19 | 0.41 |
| 2010 | 20 | Transnational Bank Ltd | 0.16 | 0.13 | 0.23 | 0.24 |
| 2011 | 20 | Transnational Bank Ltd | 0.14 | 0.11 | 0.21 | 0.2 |
| 2012 | 20 | Transnational Bank Ltd | 0.16 | 0.08 | 0.12 | 0.21 |
| 2013 | 20 | Transnational Bank Ltd | 0.1 | 0.08 | 0.12 | 0.24 |
| 2014 | 20 | Transnational Bank Ltd | 0.07 | 0.13 | 0.12 | 0.25 |
| 2015 | 20 | Transnational Bank Ltd | 0.08 | 0.13 | 0.11 | 0.24 |

## APPENDIX VII

### Letter of Authorization to carry out Research

# SCHOOL OF BUSINESS & ECONOMICS

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Tel: 020-2035181
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www.kabarak.ac.ke

25th October, 2016

**To Whom It May Concern:**

Dear Sir/Madam,

**RE: NICKSON KIPTISIA KIPTIONY – GMB/NE/1029/09/14**

This is to confirm that the above named is a bonafide student of Kabarak University pursuing a Master of Business Administration (Finance Option).

Nickson has completed his coursework and currently carrying out a study on "***Effect of Internal Credit Rating on Financial Performance of Commercial Banks in Kenya.***"

Your assistance will be highly appreciated.

Thank you.

Yours faithfully,

KABARAK UNIVERSITY DEAN, BUSINESS SCHOOL 25 OCT 2016 P.O. PRIVATE BAG 20157, KABARAK

**Dr. John Gathii**
**Ag.Dean**

**Kabarak University Moral Code**
As members of Kabarak University family, we purpose at all times and all places, to set apart in one's heart, Jesus as Lord.
(1 Peter 3:15)