COLLEGE OF BUSINESS AND ECONOMICS DEPARTMENT OF POSTGRADUATE STUDIES MBA

EFFECT OF CENTRAL BANK REGULATIONS ON FINANCIAL PERFORMANCE OF COMMERCIAL BANKS IN RWANDA

Submitted

by

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DECLARATION

I, **Enock Tumwine**, do declare that this research is my original work and has not been presented by any other person for a degree or any other academic award in any institution of higher learning, college or university.

Name

Enock Tumwine

Signature

…………………..……………..

Date

22th May, 2021

CERTIFICATION

This is to certify that the study entitled "Effect of Central Bank Regulations on Performance of Financial Institutions in Rwanda: A Case Study of Commercial Banks in Rwanda" was conducted and presented by Enock Tumwine under my guidance and supervision as partial fulfillment of the requirement for the award of a Master's degree in Business Administration (MBA) Finance option at University of Rwanda college of business, College of Business and Economics.

Supervisor: Dr. RUSAGARA Jean Bosco

Signed:

Date…

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ABSTRACT

The thesis main goal is to look at the effect of central bank regulations on financial institution performance in Rwanda using a case study of commercial banks in Rwanda. The research focused on audited financial statements of six commercial banks in Rwanda, the sample was chosen on basis of age, share capital, assets bank holds, youngest bank, oldest bank, foreign bank as this will support vivid results on the study.

The study used quantitative method of data collection. Data were collected using financial statements and processed using financial ratios. Correlation and regression analyses were used to establish the relationship between effects of central bank on performance of financial institutions. Findings were revealed positive linear relationship between central bank regulations on performance of central bank regulations. The thesis had both academic and policy implications. It provides a deep understanding of central bank regulations, aspect of the literature that has not been given important attention as most studies have a bias on banks. Several previous researches have been conducted with the same variables "central regulation on performance of banks" Even though the variables that have been used are the same. Therefore, it is with this consideration that present study intended to focus more on central bank regulations on the performance of financial institutions. Consequently, this research will provide empirical data related to the studied variables "central bank regulations and performance of financial institutions". This will contribute to the academic literatures, further theoretical and empirical developments related to the central bank regulations mainly. The researcher recommended that banks completely comply with all stipulated regulations, and that the Central Bank ensure that all banks do so. Commercial banks should be adequately capitalized in order to fulfil their mandates the advertisement. The Central Bank of Rwanda should effectively control how commercial banks handle their liquidity so that a healthy banking climate can be created. Banks should implement appropriate risk management strategies that help them manage credit adequately so that the amount of non-performing loans can be reduced.

Key words in the thesis

- Central bank regulations

- Performance

- Commercial banks.

- Rwanda

- Reserve requirement

- Credit risk management

- Liquidity management

- Return on asset (ROA)
- Return on equity (ROE)
- Non-performing loans ration (NPL)

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LIST OF ACRONYMS

CAR   : Capital adequacy ratio

CCTV : Closed-circuit télévision

CMA : Capital Markets Authority

GDP   : Gross Domestic Product

HTTP : Hyper Text Transfer Protocol

NPLR : Non- performing Loan ratio

RBA   : Rwanda Bankers Association

RBC   : Risk- Base Capital

RBI   : Reserve Bank of India

ROA` : Return on Asset

ROE   : Return on Equity

ROI   : Return on Investment

ROS   : Return on Sales

Rwf   : Rwandan Francs

SPSS : Statistical Packages of Social Sciences

U.K   : United Kingdom

U.S   : United State

CHAPTER 1
GENERAL INTRODUCTION

1.0.   Introduction

This chapter covers the study's context, the problem statement, the study's goals, and the research questions. It also summarizes the study's importance, limitations, and scope.

1.1 Background of the Study

Globally, some different studies have been done in this area of banking regulations and its effect on financial performance.

Those studies include (Samad, 2009); study on relationship between performance and regulation of banks in Washington which found out that regulations have positive effect on financial performance of commercial banks on their performance,this result was supported by Howels and Bain (2014) study. However, Barth et al (2013) stated that, increase in financial restriction leads to increase in financial crisis.

Most Sub-Saharan African countries' financial markets have been deregulated since the 1980s, with their governments either eliminating or reducing state regulations that supervised financial institutions (Kumbhakar, et al., 2015). This is because policy Deregulation, they say, is the only way to enhance the efficiency and success of these organizations. These policies are aimed at increasing bank price, commodity, and territorial rivalry. However, the effects of this deregulation process have been mixed. Deregulation of Norwegian banks, for example, allowed them to set their own lending rates and the amount of money they could lend out, which was good for some countries but bad for others. The results have been very positive for them though in India and USA this has not been the case.

Central bank regulation is a collection of laws and rules that apply to the banking industry, while supervision is the oversight of banks' activities by authorities and the compliance of banking regulations (Barth et al., 2013). Every Central Bank in the world has released regulations and guidelines. This regulatory framework ensures that financial institutions, as well as the individuals and businesses with whom they do business, are transparent. Regulations are a set of rules that any individual or organization must follow; failure to do so can result in negative

consequences, while guidelines are suggested practices as the most efficient in terms of generating high returns and thereby improving the efficiency of commercial banks in the future (Doyle, 2015).

Central bank regulations are nothing new to financial institutions. According to (Barth et al., 2013), bank regulations are a type of government or state command that imposes certain requirements, controls, and guidelines on the banking sector via regulators such as the Central Bank, to ensure market transparency between the banking industry and individuals, or between the banking industry and other companies in which they do business. In order to effectively respond to adverse changes, bank regulators are constantly revising their regulations and guidelines in the current business conditions, which, if not properly managed, would result in the current business environment, which, if not managed properly, will lead to financial difficulties. (Richard, 2011, Richard)

Commercial banks are one of the most significant financial intermediaries in the financial system, serving as a go-between for two parties involved in a financial transaction, such as exchanging funds from lenders to borrowers (borrowers). It is extremely rare in the financial market for funds to flow directly from a producer to end consumers without the use of a middleman. When passing through a financial intermediary, For the safety of all parties, great bank rules must be in effect (Cornett & Saunders, 2009). Banks go to great lengths to reduce the risks they face, according to Fernandez and Gonzalez's (2015) research into how accounting and auditing processes can prevent banking safety nets from shifting risk, which is only possible thanks to stringent banking regulations. Barth et al., (2011) on the other hand, wrote that high bank regulations are related to a high risk of inefficient operations, which could lead to a banking crisis, according to their research into how bank ownership and regulations affect bank output and stability.

Central banks, national treasuries, and commercial banks are the world's three (3) most important financial institutions. The three have a reciprocal relationship in the following way: the central bank is the financial system's leader, with primary responsibility for money creation. In the other hand, the national treasury is in charge of handling all of the government's funds, the central bank generates money by collecting taxes and paying government obligations through commercial bank or central bank accounts. To maintain the money supply and to be used for

bank check clearing, a certain percentage of all commercial banks' total deposits must be deposited with the Central Bank (williams, 2012).

The Basel Committee is an international organization that establishes prudential regulations for banking institutions. In order to achieve its key objective of improving bank financial stability, it ensures that all regulation and supervision practices for global banks are effective and successful. According to Muiruri (2015), just because Rwanda is not a member of the Basel Convention does not mean it is not a member of the international community. The fact that it is a committee does not negate the fact that it is subject to its oversight and supervision. Basel Committee standards are chosen and implemented by the Rwandan Central Bank. The Rwandan Central Bank ensures that all licensed financial institutions adhere to the rules and regulations that regulate them, which are based on the Basel Committee's international standards (Richard, Devinney, Yip, & Johnson, 2009).

The financial results of a company can be described as how well it performs at the end of the fiscal year (Rutagi, 2017). Shareholders and management benefit from knowing about a bank's growth, but so do other stakeholders such as suppliers and consumers. Customers, creditors, and others must decide whether or not to invest in the company alternatively, look for alternatives (Casu et al, 2016). Good financial results are linked to increased profitability and growth in banking and other financial institutions, profit maximization and asset maximization are two critical goals. When it comes to profit maximization, management makes use of all available resources to increase the company's profitability. When it comes to wealth maximization, management makes use of all available resources to increase the company's wealth, only decisions that Management considers what would increase the value of the company's stock. According to Murthy, et al., (2013) wrote that commercial bank performance can be calculated using ratios such as Return on Assets (ROA) and Return on Equity (ROE).

After all costs and taxes have been deducted, the return on assets (ROA) is the net income from bank assets. A higher ROA ratio means better productivity and effective asset utilization, while a low ratio means inefficient asset utilization (Ross, et al.,2015). Since ROE is more important than other ratios, it was used as a performance predictor in this analysis, since it depicts the rate of return to the company's creditors, i.e., the shareholders Since it shows how much a company

has produced from the amount of money spent by shareholders, the ROE ratio is a fair measure of output quality. According to Hassan and Samad (2009), the higher the return on investment, the better the outcomes.

The primary goal of the supervisory mechanism was to identify particular roles and strengthen collaboration between the Central Bank and all financial institutions. Supervisory evaluations are fast, accurate, and well-documented thanks to the structure. Any financial institution in Rwanda may be chastised or closed based on its performance, allowing the relevant authority to take appropriate measures to promote (BNR, 2011). This supervision not only reduces the risk of financial transactions, but it also serves as a warning about the poor performance of Rwanda's banks and MFIs.

Commercial banks, microfinance institutions, savings and credit schemes, and non-financial institutions make up Rwanda's financial sector. The Rwandan commercial banking sector consists of sixteen commercial banks authorized by the Rwandan Central Bank (BNR,2020). As a result, the Rwanda Bankers' Association (RBA) was established by all commercial banks with the aim of establishing mechanisms to ensure the banking sector's professionalism and regulation. Cheques and transfer orders collection, cash deposits and withdrawals are among the facilities provided by banking operations, Account opening and closing, as well as cheque certifications and cash deposits and withdrawals. Cash activities declined in volume by 8.5 percent but increased in value by 26.7 percent in the first half of 2012 compared to the same time last year.

The number of operations related to funds transfer processing fell by 29.0 percent in 2012, from 147.5 thousand in 2011 to 104.8 thousand in 2012, while the value of those operations rose by 126.5 percent over the same time in 2011. In the same time frame, check processing grew by 67.0 percent in volume and 364.0 percent in value as compared to 2011.The Regulatory Authority (Central Bank of Rwanda), the Ministry of Finance, and the Network of Banking Institutions, which is the professional organization that provides the basis for consultation with external institutional partners, are the three key actors in the banking industry.

According to the Rwanda Fin scope 2009 report, the growth of financial institutions centered on overcoming financial exclusion due to various barriers between 2005 and 2009. Off-site and on-site inspections have been conducted on a regular basis while licensing new institutions. During the year 2009, on-site audits were conducted to increase the performance of the bank's operations

Examinations were carried out in 28 MFIs, including the five largest. The Central Bank has had necessary details on performing and non-performing financial institutions as a result of this supervision (BNR, 2011) it was found out that commercial institutions need to be regulated for better performance.

1.2. Problem statement

In total, 28 MFIs were examined, including the five highest. As a result of this oversight, the Central Bank now has the requisite information on performing and non-performing financial institutions (BNR, 2011).

During the Year 2011, Rwanda Central bank implemented its Monetary Policy in unprecedented turmoil of the international and national economic and financial environment. This particular year, the world real GDP declined by 1.1% mainly due to weak performance in leading developed economies, the most affected by the global financial crisis (BNR, 2011). Government and Central Bank policy steps were taken to prevent a further decline in the growth rate. While the government continued to push agriculture development, the Central Bank took effective policy steps to resolve the liquidity crunch and credit to private sector conditions, with the aim of restoring trust in the banking system (BNR, 2011).

Rwandan banks are expected to follow the Central Bank of Rwanda's regulations. To comply with the regulation, management must present capital adequacy return reports, liquidity statement reports, Statement of financial condition and deposit return, and return on investment, which compares financial assets to the bank's total assets and core capital. However, instead of performing, some financial institutions have been closed by Central Bank due to their failure to conform their operations to its norms. The main problem is that even financial institutions that are considered as most performing have been found guilty of none of respecting all the regulation norms (BNR, 2011). The majority of studies on the relationship between bank regulation and commercial bank performance have been performed in developed countries. However, there has never been a study conducted in Rwanda to see how central bank regulation affects the financial performance of commercial banks after implementation of Basel i&iii as a result, the aim of this research is to determine the effect of central banking regulations on the performance of Rwandan commercial banks after Basel II&III

1.3. Objectives of the Study

This part consists of presenting the general objective and specific objectives of the study.

1.3.1 General Objective

The main purpose of this study is to assess the effect of banking regulations on the performance of commercial banks in Rwanda.

1.3.2. Specific Objectives

1. To assess the effect of reserve requirement on financial performance of commercial banks in Rwanda.
2. To examine the effect of liquidity Management on financial performance of commercial banks in Rwanda.
3. To identity the effect of credit-risk management on financial performance of Commercial Banks in Rwanda.

1.4. Research questions

1. What is the effect of reserve requirement on financial performance of Commercial Banks in Rwanda?
2. What is the effect of liquidity management on financial performance of Commercial Banks in Rwanda?
3. What is the effect of credit risk management on financial performance of Commercial Banks in Rwanda?

1.5. Significance of the study

This research study is significantly important for Central Bank of Rwanda being a financial institutions supervisor. The Central Bank wants to know how commercial banks are doing now that the latest rules and guidelines have been enforced. They specifically interested at knowing how the banks growth and stability are maintained. The banks growth and stability are the main objectives of formulation of regulations.

Other regulatory agencies, such as the Capital Markets Authority (CMA) and the Rwanda Banker Association (RBA), will be interested in this study because they assess performance after new regulations are implemented. Investors are also interested in learning how the new rules can secure their bank assets the BNR, for example, can compensate them in the case of capital requirements, which can be compensated if a bank's output is poor. Based on this experience, investors would be able to make the best decision possible about whether to continue investing or to move their investment portfolio to another.

After reviewing the following three regulations such as reserve requirement, liquidity management, and credit risk management, the results of this study will contribute to further awareness expansion concerning central bank regulations and financial performance of commercial banks in Rwanda. The study will be most beneficial to the following individuals, among others: Information would be offered to commercial bank management teams as well as financial institutions that provide services that are almost identical to those provided by banks in general, management should use this data to assess how regulations impact the organization's activities and, as a result, be able to recognize places where things are going well or poorly, and then take corrective action and this research would benefit academics who want to learn more about the impact of central bank regulation on financial institution performance in Rwanda. In addition, the data from this study will be used by other researchers who wish to expand their knowledge in this area.

1.6. Scope of the study

The period for the research is spanning from 2011 to 2018. This period was chosen because it corresponds to the entry into force of the amendments done on the law regulating bank activities in Rwanda and also corresponds to the most recent period for which we have available data.

In terms of content, secondary date was used to make significant analysis of the performance of the banks as result of installation of banking regulations. The secondary data used include the financial statements and ratios.

The financial sector in Rwanda is made of financial institutions and non-financial institutions. The financial institutions include the Commercial banks, credit and saving cooperatives and

micro finance institutions. This research only concentrated on commercial banks expect the development bank.

1.7. The study's structure

There were five parts to the study. The study's introduction was covered in the first chapter. The meaning of the analysis, the problem statement, and general and specific goals for answering the research questions were all included. The study's purpose, limitations, scope, and organization were all clarified in the following chapter. The second chapter summarized the theoretical and empirical literature review and offered a critical assessment of the identified gap. A concept framework was also created to depict the relationship between the dependent and independent variables. The third chapter presented a detailed overview of the data collection and analysis methodology and procedures. The study's results were summarized in the fourth chapter. Finally, chapter five presented a review of the study's results, conclusions, and recommendations.

CHAPTER 2

LITERATURE REVIEW

2.0. Introduction

This chapter provides the related literature reviewed for the study that has been extracted from various publications from libraries and from internet. This chapter based on the theoretical framework, conceptual framework, empirical study.

2.1. Theoretical framework

The concept of bank regulations has been in existence for so many years all over the world. However, it was not developed as it is today due to some factors such as increase in competition from other financial institutions, changes in customer demands among others. Bank regulations are of growing importance in financial institutions, particularly in management of bank's operation. There have been a variety of theories developed to describe the impact of bank regulations on commercial bank financial efficiency, but this study focused on the following three theories: agency theory, stakeholder theory, and liquidity theory.

2.1.1. Agency Theory

In commercial banks, there is management team (managers) and the owners (shareholders) of the business. Owners' delegates power to the management whom they expect them to work towards achieving their main interest which is wealth maximization. Clarkson (2015) states that wealthy creation for the owners of the organization is the main purpose for the business. Management team has more information concerning firm's performance as compared to their owners. Commercial banks management is responsible in managing all the banks operation thus having more information concerning the operation of the bank as compared to their shareholders. According to Roe (1994), shareholders lack enough information on how to run the business as well as deep understanding of their business leading to having management team in their business. According to Howels and Bain (2014), bank regulations exist to manage asymmetric information which may be exposing the shareholders to certain risk not aware of but managers have all the information. Banks work with money which is very tempting to fraud and other illegal practices such as financing terrorism groups so, separation of ownership and control results to different behaviours in the management team such as agency problem where

management leaves the interest of shareholders and start working towards achieving their own interest. Agency problem has been a problem in all financial institutions where if not controlled results to negative impact on the overall performance of the firm. Blair and Tony (2014), management has to be well monitored and institutional arrangement to be in place in order to make sure there is no abuse of the power by managers.

In large organization where there is dispersed ownership like in the case of commercial banks, shareholders have to incur costs in dealing with agency problem which is known as agency cost. There are two main costs which can be used to minimize shareholders-management conflict that is, monitoring cost and incentive cost. Monitoring cost is associated with things like ensuring effective internal audit, external audit, internal controls and compliance, good supervision, and CCTV among others. Incentive cost is the cost incurred by shareholders through increase of employees' wealth by paying high remuneration and other benefits such as; shares appreciation rights, commissions, spouse allowances or children education. The problem with this agency cost is that everyone wants to be rewarded, so managers may be tempted to give false information in order to get incentives even if that is not the real situation of the organization (Commercial bank). Shareholders can directly intervene the management with threats of firing or threat of takeover in orders to control agency problem (Sandal et al., 2015).

2.1.2 Liquidity preference Theory

The ability to have cash in your pockets is referred to as liquidity preference theory. Money is the most liquid of all assets and is defined as any type of an asset that can be easily transformed into cash. Commercial banks mostly deal with liquid assets that investors can demand at any time. According to Eggertsson, (2008), Money demand and supply are used to calculate interest rate, which is a reward for not keeping a liquid asset for a set period of time.

According to Keynes (2008), money demand can be divided into three groups the first transaction motive is the desire to have cash for basic transactions such as transportation, wages, or raw material payment. Second, a precautionary motive is to keep cash on hand in case of an unexpected expense, such as an accident or illness. Finally, the speculative motive is to keep cash on hand and predict potential adjustments in order to exercise the stock-buying rights. If interest rates are expected to fall and stock prices are expected to increase, investors will buy and

keep until the price increases. The total sum of money circulating in a country is known as the supply of money (Balogun, 2011), Different investors have different liquidity preferences, with some preferring illiquid assets. The higher the interest rate, the more illiquid the asset several factors can affect bank liquidity, including political instability in a region, such as the post-election violence that occurred in Kenya in the years 2007 and 2008. Any investor in the affected region rushed to the bank in the aftermath of the disaster. hopes of getting their money, causing a bank run and panic.

Other authors, such as Rothbard (2012), have criticized Keynes' argument, arguing that interest rates are influenced by other factors other than liquidity preference, as Keynes suggested. Short-run interest is considered in the Keynesian theory of interest, but long-run interest is not clarified. When all other factors are equal, investors prefer cash or other highly liquid holdings so they can earn a higher interest rate or premium on securities with longer maturities and higher risk, according to liquidity preference theory.

2.2. Conceptual review
2.2.1. Reserve requirements
Depository institutions (commercial banks) are required to maintain minimum reserves against their liabilities, which are typically held in the form of central bank balances. Reserve conditions (RR) are imposed for three reasons: monetary stability, liquidity management, and prudential reasons. The reserve requirement ratio is currently at 5%. Changes in reserve requirements have an effect on the banking system's liquidity and ability to generate loans (Oketch, 2016).

Modern economies utilized interest rate as a monetary policy instrument. The interest rate affect bank risk. A transparent policy and credible commitment by central bank, low interest rate lead to collective moral hazard, thus, a loose monetary and regulatory environment stimulating banks to take one more risk.

A study conducted by Roa (2006) on the impact of monetary policy on the banks profitability in India found that the lending rate has a positive relationship with banks profits, thus, increasing the lending rate would increase the bank's profitability. The banking sector is therefore regulated

and controlled to avoid inflationary pressures as results of high lending rate privileged by banks to increase their profitability.

Similarly, Satter (2014) quoted by Fatima (2015) demonstrated that the rate of interest and commercial bank profitability have a strong and positive relationship. He discovered that an increase or decrease in the value of the interest rate causes an increase or decrease in the profitability of banks. The high interest rate brings about the rise in lending rate than the deposit rate, hence an increase of bank operating income. In contrary, the low interest rate increases the deposit rate than the lending rate.

Christian and Pascal (2012), Cargill and Mayer (2006) quoted by Yimer (2018) stated that the increase in reserve requirement leads to contraction and decrease in domestic and bank credit. The deposits which are subject to reserve requirement need to be substitutable to other source of funding, otherwise, the higher reserve requirement will increase the marginal cost for the banks. Subsequently, the deposit and lending rate spread raise at the same time while the total credit fall. Moreover, Meltzer (2003) and Chandler (1971), Wilcox (2012) found out that the raise in the reserve requirement would have little or no impact on credit supply and investment or banks holding back their lending/selling securities or cause interest rate to raise quoted by Yimer (2018).

2.2.2. Liquidity Management

Liquidity management can have different impact on financial performance according to different researchers. In New York, Vossen (2010) conducted research on bank liquidity management. According to him, liquidity risk exposes banks to financial difficulties, resulting in depositor runs, investor flight, and more difficult financing. To help New York's financial institutions escape this situation, bank rules have been placed in place. He summarized his findings by stating that banks in New York try to control liquidity risk by maintaining a balance between cash inflow and outflow while also preserving liquidity cushions for strategic purposes.

The effect of liquidity management on profitability was analyzed by Lamberg and Valming (2009). In Sweden, an analysis of the adaptation of liquidity strategies was performed. The study's goal was to see if changes in liquidity strategies are linked to profitability, to help New

York's financial institutions escape this situation, bank rules have been placed in place. He summarized his findings by saying that banks in New York try to control liquidity risk by keeping a balance between cash inflow and outflow and keeping liquidity cushions for strategic purposes. In order to achieve successful financial performance, they concluded their study by recommending companies to put a heavy focus on liquidity management. Other researchers, such as (Dang 2011), who conducted a report on CAMEL, backed up these results, and said that clear association between sufficient liquidity levels and bank profitability, according to the rating system used in banking supervision.

Demirgunes (2016) examined the effects of liquidity on financial performance in the Turkish retail industry and discovered that there is a clear correlation between the two The Turkish retail industry's liquidity and financial performance. According to Deloof (2013), liquidity allows companies to meet short-term targets without incurring unnecessary costs, resulting in good results. The above results, other scholars' arguments, on the other hand, were refuted. According to Adam and Buckle (2013), the higher the firm's liquidity, the more likely managers are to behave in a way that will help them reach their own ultimate target, resulting in a decrease in profitability.

Said and Tumin (2011) compared Malaysian and Chinese commercial banks' performance and financial ratios. They came to the conclusion that there is no connection between bank performance and bank liquidity because high bank liquidity makes a bank vulnerable to robbery. In order to measure the implications of the European Central Bank's decline in mortgage interest rates, Dimitrios (2009) looked at banks and liquidity. Customers who had applied for a mortgage before interest rates fell were disappointed because they would have to continue repaying at the old rates. The European Central Bank's decision to lower interest rates delighted new customers. In order to strengthen their capital and liquid assets, he also noted that banks need new customers.

Faris (2014) investigated the effectiveness of liquidity management in two Islamic banks, the Islamic International Arab Bank and the Jordan Islamic Bank, and discovered that liquidity was a major issue. Management performance in those two Islamic banks is not what it should be, which is why they are struggling financially. In addition, the findings pointed to a long-term

liquidity problem. He came to the conclusion that the study's Return on Asset (ROA) is inefficient, putting equity capital and reserves at risk. In Nigeria, Ibe (2013) investigated the effect of liquidity management on bank profitability. The study focused on three Nigerian banks and discovered a serious problem with the country's financial institutions, with the selected variables performing poorly in terms of profitability. This revealed that Nigerian banks' liquidity management systems are ineffective. In order to achieve good financial results, he concluded that each Nigerian bank should determine its optimal liquidity position.

In South Africa, Molefe &Muzindutsi (2015) investigated the effect of capital and liquidity management on bank profitability. The study looked at five of South Africa's most powerful banks from 2004 to 2014. Capital adequacy is the most important tool for ensuring financial institution soundness in South Africa, according to the findings. Liquidity and profitability had a poor relationship among South Africa's five largest banks. They conclude that, in order to improve financial performance, banks in South Africa should update their liquidity management guidelines to determine the optimal liquidity level. The studies reviewed above indicate that there is a negative relationship between liquidity management regulation and financial performance, according to some scholars. The five largest banks in South Africa, according to Molefe &Muzindutsi (2015), had a weak relationship between liquidity and profitability.

2.2.3. Credit risk Management

In Ethiopia, Gizaw, Kebede, & Selvaraj (2015) investigated the impact of credit risk on commercial bank profitability. The research was based on secondary data collected from eight commercial banks that operated between 2003 and 2004 (12 years old). According to the results of the report, credit risk management in Ethiopian banks has strengthened over time, as evidenced by a decline in the ratio of non-performing loans. Credit risk management and financial stability have a significant positive relationship, according to the findings of this study As a result, Ethiopian managers are being urged to employ modern credit risk management techniques in order to improve their efficiency.

Alshatti, (2015) investigated the impact of credit risk management on Jordanian commercial bank results. The study covered the years 2005 to 2013 for a group of thirteen Jordanian

commercial banks. He discovered that a credit risk management measure called the non-performing loan ratio has a positive impact on bank profitability. Furthermore, the findings showed that capital adequacy ratios, credit facilities, and leverage ratios have no effect on Jordanian commercial banks. In order to provide an accurate and sound credit risk management system, he concluded that banks should perform rigorous information assessments before authorizing loans to customers.

Jonathan (2012) used AtwimanKwanwoma Rural Bank as a case study for his research on credit risk management in the banking industry. He polled 600 bank customers, 330 of whom were men and 270 of whom were women, who had taken out a loan. Men default on loans more frequently than women, according to the report, and self-employed people default on loans more frequently than employees who have a job. Manzura and Juanjuan looked into the connection between credit risk management and profitability in Swedish commercial banks (2009). High capital adequacy, according to the researchers, has a positive effect on credit risk management and bank profitability in Sweden. The research was focused on four Swedish commercial banks.

For all four banks sampled in Sweden, the non-performing loan ratio (NPLR) has a greater effect on profitability than the capital adequacy ratio (CAR) of the two credit risk management metrics used in the analysis. Basel II was implemented, amplifying the detrimental effect of NPLR on ROE. The higher the capital adequacy ratio, the higher the bank's profitability, according to the findings of this study. In a study similar to Manzura and Juanjuan's, Zou and Fan (2014) discovered a positive relationship between credit risk management and profitability for European commercial banks (2009). According to the findings, NPLR had a significant impact on both ROE and ROA, while CAR had a minor impact on both. Wang (2013) investigated credit risk management in China's rural commercial banks. Rural Commercial Banks (RCBs) in China, according to the study, must collect sufficient information about potential customers in order to save the bank from being exposed to credit risk the sufficient information gathered would aid in determining whether the loan applicant poses a risk of default and making an informed decision. In order for RCBs to maintain effective credit risk management, he concluded, they must before introduce any credit risk management plan; they must first concentrate on their business operating environment, which can include specific risks.

A study on European Union banking supervision, regulation, and efficiency was published by Fernandez and Gonzalez (2015). According to the findings, banks go to great lengths to control credit risk, which is only possible due to increased bank restrictions. On the other hand, this statement contradicted Barth et al. (2011), who found a correlation between bank regulatory rigor and increased profits with a significant risk of inefficiency resulting in a banking crisis Gaganis&Zopounidis (2013) backed up Barth et al. (2011) by stating that the lower the bank restrictions, the higher the credit rating, and vice versa. In contrast to consumer deposits, credit is what a bank offers customers in the form of a loan, when a borrower receives interest from a bank, it is referred to as bank credit. There is a strong and positive link, according to the studies reviewed above, as nearly all of the authors linked credit risk management regulations to positive institution outcomes (commercial bank) (Barth et al.,2011).

2.2.4. Corporate governance

Corporate governance is very essential in a publicly held companies due to the separation of ownership and control. Good corporate governance improves the economic efficiency, growth, investor confidence and increases access to external financing as well as lower cost of capital and operational performance (Fanta, 2013). As competition in service delivery is increasing in banking sector, the emphasis has been given to improve the efficiency. Rashid et al. (2020) recognized that the corporate governance is fundamental principle to bank efficiency by ensuring risk minimization, value creation, and public accountability. He further states that recent studies have revealed the importance of including corporate governance in analyzing the bank performance. The corporate governance variables such as board size and composition, CEO duality, percentage of non-executive directors, capital adequacy, and ownership percentage of large stakeholders are used to evaluate its impact on bank performance. Al-Hawary (2011) found that CEO duality and percentage of non-executive director have significantly positive effect on bank performance. These variables are determinants on banking performance. Further study on effect of corporate governance on bank performance in Nigeria conducted by Sunday (2008) revealed that board size and chief executive status positively affect the bank performance.

2.2.5. Financial Performance

To assess the effect of regulation on bank efficiency, it is important to define performance in relation to banks. There are two approaches to this: look at bank performance from a business perspective by looking at stock returns and interpreting changes in these as market performance, or look at bank performance from a commodity perspective by looking at stock returns and interpreting changes in these as market performance by examining commodity returns and interpreting variations in them as market performance Accounting figures, with accounting returns serving as indicators of bank success, can also be used as a starting point, with accounting returns serving as measures of bank success (MacDonald, 2016).

Profitability is used to measure a bank's financial success, According to Warren (2005), wrote that the capacity of a business to make a reasonable profit from the owner's investment is referred to as profitability. Profitability ratios demonstrate a company's overall productivity and profitability, which is why most companies exist. Because management efficiency is linked to profitability, profitability ratios are widely used as credit analysis indicators in banks (2007), according to a report by Waymond (2005). ROA and ROE are the most commonly used ratios, with ROE having a quality level of 15-30% and ROA having a quality level of at least 1%. Profitability is the most significant element in determining a company's performance Waymond, (2005).

A company that is not profitable will be forced to close its doors, highly profitable company on the other hand can provide a substantial return on investment to its owners increased profitability is one of the most critical roles of business managers and these people are often searching for new ways to do so.

Return on assets (ROA), a widely used measure when reporting bank earnings, shows the percentage return on the bank's average assets. The equity multiplier has something to do with return on equity (ROE), which depicts the bank's leveraged ROE as a result of its debt. A high asset to equity ratio results in a high equity multiplier, which has a two-fold impact. It improves ROE during periods of positive ROA while deteriorating ROE during periods of negative

ROA.As a result, the equity multiplier serves as a risk and benefit indicator while also testing financial leverage (MacDonald & Koch 2016).

According to Huppert (2010), net business income is highly volatile from year to year and is strongly related to the size and performance of the operation, as well as the amount of debt the firm carries. The rate of return on a company's assets can also be quite volatile, In Iowa, however, long-term average rates of 6 to 10% have been the standard. High-profit firms, on the other hand, can earn an average of more than 12%, whereas low-profit firms can earn as little as 2%. When interest rates are high, the average rate of return on firm equity measures how fast a company's net worth rises, excluding changes in the value of its land and machinery, High-leveraged companies can see little or no return on their investment. In the other hand, if the firm's total return on assets exceeds the cost of borrowed capital, the return on equity will be very high, and net worth will grow rapidly (Huppert, 2010).

According to Harper, the operating profit margin is (2009),is calculated by dividing the annual value of the firm's output by the dollar return on capital divided by the cost of capital. In recent years, the average ratio has been around 25% to 30%. Low-profit companies had ratios of less than 15%, while high-profit companies had ratios of 35% or more. Firms that hire or lease assets such as employees, land, and equipment face higher fixed costs, or equipment's operating profit margin will be lower. They will, on the other hand, normally generate higher gross and net income. Companies with owned or crop share leased land will have a higher operating profit margin due to lower operating costs. Another common measure of profitability is EBITDA (earnings before interest, taxes, depreciation, and amortization).It displays the amount of money available for debt repayment (Huppert, 2010).

According to Garry et al. (2013), one of the most critical areas of your finances to review when measuring profitability is your profitability. Most growing companies want to maximize profits, so knowing how to calculate profitability is critical. The following are some of the most important quality measures: Return on Investment (ROI) (ROA). As a percentage of the firm's assets, this calculation depicts the return to stockholders and the interest paid to lenders. Its definition is as follows: (Net Income to Common Stock)/Return on Assets (Total Assets).

Return on Investment (ROI) (ROE), net income of a company is expressed as a percentage of its owner's equity or shareholders' equity in this financial ratio. This is how it is defined: (Gibson, 2012).(Net income to Stock)/(Owner'sEquity) = Return on Equity.

A competitive banking system is needed to ensure that banks are active forces for financial intermediation, channeling savings into investment and promoting higher economic growth. When assessing a bank's results, conventional assessments such as asset management efficiency can be conducted on the information in its financial statements, review of profitability and risk (Gardner& Mills, 1994; Athanasoglou, 2006). Despite the fact that various evaluators have different agendas, they all have an interest in measuring efficiency (Gardner & Mills, 1994) and use accounting and other data to measure an institution's financial situation at any given time. Profitability is a metric that calculates a bank's financial results over a certain time span, normally a year, as a result of decisions taken on how to best use all of the institution's capital (Knight Roth, 2003). However, not only the profitability of a bank, but also its financial status, must be considered when evaluating its performance. As a result, risk management and profitability management are inextricably linked, since taking risks is a prerequisite for future benefit (Bessis, 1998). Each bank must decide how much risk it is willing to take in order to achieve its desired level of profitability. As a consequence, without a thorough assessment of a bank's risk, a profit measure alone is insufficient. The earnings and financial security of a specific bank can be deceiving when judging a par.

Analysts use a variety of metrics when looking at trends over time and comparing data from different banks. A substantial deviation from the average on any one metric is considered when a bank's output is compared to that of other banks of similar size and market profile Important may be a symbol of future problems or advantages. Before jumping to any conclusions, though, it's critical to determine why the deviation happened in the first place. Furthermore, bank profitability is usually determined by the return on assets (ROA) and/or the return on equity (ROE), which is typically expressed as a function of internal and external determinants (ROE). (Athanasoglou, 2006).Internal determinants are factors influenced primarily by a bank's management decisions and policy objectives, such as liquidity, provisioning policy, capital adequacy, expense management, and bank size. Variables that reflect the external environment,

on the other hand, are known as external determinants. The industry-specific and macroeconomic economic and legal environment in which banking institutions operate are important considerations. Furthermore, banking risks are typically defined by their negative impact on profitability as a result of a number of different sources of uncertainty (Knight and Roth, 2003). Three of the most important banking risks are liquidity, interest rate, and solvency. Banks must be able to generate enough revenue from both the retail and wholesale markets to offset any negative impact on profitability caused by the risks described above, while also preserving enough resources to ensure the banking system's stability and meet investment requirements Expectations from capital providers' intermediation mechanisms (primarily interest margin) and non-lending activities (such as value added services and trading) to cover any negative effect on profitability from the risks mentioned above. Finally, efficiency, which is an important element of profitability, is assessed using several ratios. The ratios are used to calculate whether a company's assets are being used efficiently to produce revenue by comparing physical production to particular physical inputs (Knight & Roth, 2003).

2.3. Empirical Review

Bridges, Gregory, & Spaltro (2014) used the Bank of England as a case study to examine the impact of capital adequacy on bank lending. They discovered that any improvement in capital adequacy leads to increases in capital and lending, i.e., an increase in capital requirements causes banks' capital ratios to rise and loan growth to slow. The research also discovered that loan growth yields a positive return Three years after an adjustment in the capital requirement, things return to normal. He came to the conclusion that banks' responses to capital adequacy changes are influenced by the business cycle, the size of the bank, and the timing of the capital requirement adjustment. Francis & Osborne, (2009) are two other authors who studied bank control, money, and credit supply: A analysis of the effects of prudential principles in the United Kingdom backed up the above claim. They hypothesized that as capital requirements increase, the bank's optimal loan growth declines, and vice versa, with the effect varying depending on the amount of excess capitalization.

Alkadamani conducted research on capital adequacy and crisis: Facts from Emergent Economies (2015). Between 2004 and 2014, he looked at data from 46 commercial banks in four Middle

Eastern countries. Regulatory effects and capital levels are inextricably related, according to the findings. He discovered that banks with regulatory minimum capital are more profitable. Increase capital and reduce risk-taking practices to improve capital adequacy. Since banks tend to raise their risk-taking activities during economic downturns, they should preserve adequate capital adequacy.

Olalekan conducted research on capital adequacy and bank profitability in Nigeria, using empirical evidence (2013). The aim of the study was to see how capital adequacy affected the profitability of domestic and foreign banks in Nigeria. According to the results, bank profitability and capital adequacy have a positive relationship in Nigeria. He concluded by saying that the most critical factor in assessing bank profitability in Nigeria is capital adequacy. Sangmi and Nazir are two other writer's worth mentioning (2010), who studied the financial performance of Indian commercial banks and discovered that the capital adequacy ratio is closely linked to bank profitability. It has a direct impact on bank profitability in India because they have effectively governed their capital adequacy ratio by keeping it above the RBI-mandated minimum of 10% (Reserve Bank of India).

Nzioki (2011) looked into the effect of capital adequacy on the financial performance of NSE-listed commercial banks. He discovered that capital adequacy increases the output of Kenyan banks. He came to the conclusion that the higher a bank's capital adequacy, the lower its risk. Financial uncertainty and liquidity formation are also possible outcomes. Aymen (2013) discovered that capital is essential in Tunisia for smooth banking operations and investment realization, which leads to high income.

The United States suffered a credit crisis in the 1990s, prompting a slew of studies to figure out what caused it. The credit crunch was primarily triggered by risk-based capital adequacy rules, which were introduced in the 1980s. Berger and Udell (2015) investigated if they were effective. They discovered that risk-based capital could assist them in achieving their objectives. In the early 1990s, RBC lending ratios did not show any strong positive growth, prior to the credit crisis, which was a major factor in the credit crunch. On the other hand, (Wagstar, 2009) argued

against the credit crisis, arguing that it is a fallacy. As in Germany, Japan, and Canada, the crisis was triggered by a number of causes, not just the credit crunch (RBC).

According to the aforementioned study, researchers such as Bridges have found evidence of a poor relationship between capital adequacy and financial performance of an entity. According to Gregory and Spaltro (2014) and Francis and Osborne (2015), there is no connection between them (2009).

2.4. Conceptual framework

Source: *Research, 2020*
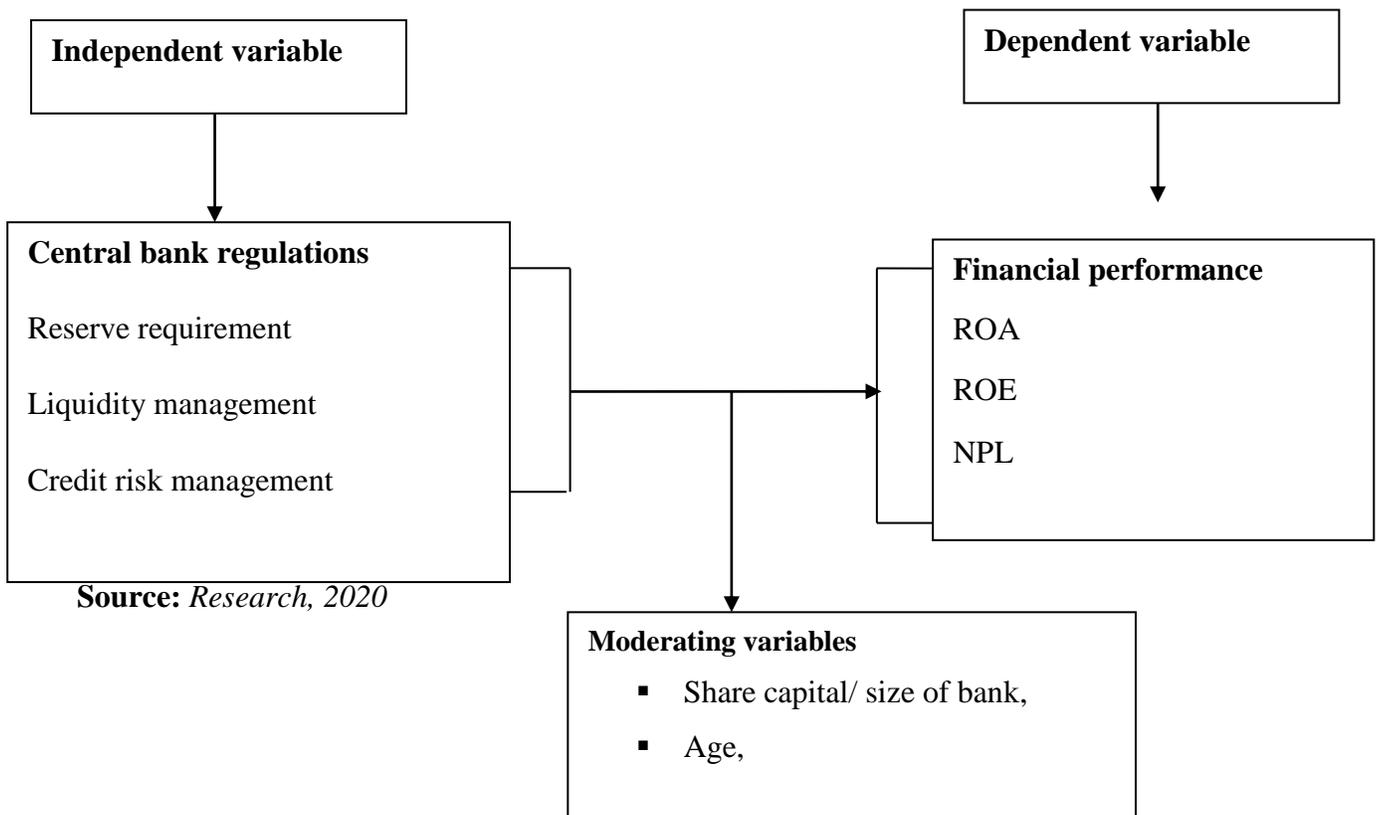
2.5. Research gap

Bank regulations are a form of government regulation that places controls, conditions, and guidelines on banks. This regulatory framework, among other items, ensures that financial institutions and the individuals and companies with whom they do business are both transparent (Steven &Sheffrin, 2013).

Given the banking industry's interconnectedness and banks' reliance on the national (and global) economy, regulatory agencies must maintain a close grip on these institutions' standardized activities. The idea of "too large to fail" is often used by proponents of such legislation. There are

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several financial institutions (especially investment banks with a commercial arm) in accordance with this principle as the justification for government bailouts, in which the government offers financial assistance to banks or other financial institutions on the brink of bankruptcy. The assumption is that without this aid, the crippled banks would not only go bankrupt, but would also spark an economic boom, resulting in systemic failure (Gurusamy, 2010).

2.6. Summary of the chapter

According to the literature reviewed above, commercial banks can be analyzed in two ways: polar bank control and financial sustainability. The terms "financial efficiency,""profitability,""financial quality," and "financial performance" are all used interchangeably (Hulme & Mosley, 2016) is a term used in this study to define a commercial bank's ability to survive indefinitely while delivering financial services by generating returns ("ceteris paribus").

Banks need to be regulated, according to empirical studies, with a focus on the effects of regulations on bank financial performance. Various researches, such as Altunbas et al., have been performed. According to Barth et al. (2014), there is a negative relationship between bank operations constraints and the banking sector's growth and stability. Commercial bank regulations provide a wide variety of results; according to some researcher's others disagreed, claiming that there was no connection between the two variables. The study focused on bank regulations that specify reserve requirements, capital requirements, and deposit coverage; however, as previously reported, no one has studied commercial bank regulations in Rwanda as a consequence, the countries lack of scientific research this investigation into the relationship between commercial bank regulations and results are justified.

CHAPTER 3
RESEARCH AND METHODOLOGY

3.0 Introduction

This section explains the method used in this research. basically, different methods of this research serve different results. Data are desirable and obtained from the different annual reports of commercial banks and Rwandan central bank website. The study was interested in investigating the effect of Central bank regulations on performance of commercial banks in Rwanda, researcher used panel data. The panel data consists of six commercial banks over the period of 2010- 2018.

3.1. Research Design

This study followed quantitative design using panel data to measure the effect of central bank regulations on performance of commercial banks in Rwanda. Researcher was interested in exploring what happens to banks (Financial performance) before and after the Central Bank introduced regulations. The Rwandan central bank regulations were introduced in 2015. Basing on data availability, the study assessed banks' performance starting in 2010 to 2018 (based on data availability) before the Central bank introduced regulations and 2015-2018 when regulations are operating. Data was collected on performance of commercial banks and country-level controls. Bank-level information were sourced from annual audited financial reports of six commercial banks operating in Rwanda during the period 2010-2018. Country-level data was sourced from the National Bank of Rwanda website as well the other from the World Bank.

3.2. Target Population

According to (Grinnell & al., 2010), the research population is the totality of commercial banks or financial statements that are being examined. The target population refers to the demographic community from which data was obtained. The open population is defined as all members of a given group to whom the research is related; while the study population is defined as all members of a given group to whom the study is related is examined in terms of the necessities in the target population within the study's scope. for this case the target population consist of six banks registered as commercial banks by the Rwanda Central Bank (BNR,2020). I&M Bank,

Ecobank Rwanda, Banque Populaire du Rwanda, Bank of Kigali, Access Bank Rwanda, Cogebanque, and are among these financial institutions.

This study aims at analyzing the impact of central bank regulations on financial performance of commercial banks in Rwanda, needed data were collected from financial audited reports of banks. According to the research objectives, the population of interest are the commercial banks that have been selected and are in operation before and after the establishment of Central bank regulations.

Sample Size

The study used a variety of purposive sampling techniques to pick the sample. This method entails locating and choosing financial statements or groups consolidated financial statements. The sample of six main commercial banks from which the secondary data were analyzed was determined using purposeful sampling. The sample size was chosen in order to produce results that applied to a wider population.

Purposive sampling techniques enable researchers to choose financial statements of the population to participate in the study based on their audited reports (Black, 2010). Since it is a criterion-based sampling method, it was used, the inclusion requirements, such as banks that have been in service since 2015, were pre-determined by the study. These banks' data helped to assess the effect of central bank regulations on commercial bank performance since they were in a good place and had enough and applicable information for the analysis.

As a result, the sample size includes six commercial banks that have been in service since 2010, hence these banks are included in the sample size.

3.4. Data Collection methods

The data were gathered from selected institutions using secondary data. Secondary data gathered includes audited financial statements and annual reports of banks for the years 2010 to 2018, which were obtained from websites and annual reports of the Central Bank of Rwanda.

Measurement of Variables

Dependent Variables

In this study there is one dependent variable namely performance, where performance is presented by NPL and ROE and performance by ROA.

3.6.2 Financial Performance

Benefit is the primary goal of commercial banks. All of the strategies conceived and tasks undertaken are geared toward achieving this lofty objective. This isn't to suggest that commercial banks aren't working for other goals. Social and economic goals may be pursued by commercial banks. A variety of ratios are used to assess the profitability of commercial banks, Return on Asset, Return on Equity, and Non-Performing Loan are the three most relevant. (Vivid Virginia Tuna, 2013) To assess an institution's financial results, the following metrics are used:

Return on Asset

Return on Asset, Return on Equity, and Non-Performing Loan are the three most relevant measures used to determine commercial bank profitability. (Vivid Virginia Tuna, 2013) To assess an institution's financial results, the following metrics are used:

Return on Assets = Net Profit Margin × Asset Turnover
= Net Profit Total Revenue × Total Revenue Average Total Assets
= Net Profit Average Total Assets

Return on average assets is a better term for ROA because it more accurately describes how it is calculated. Because of the high asset turnover, a business can get a good return on investment even if its profit margin is low. Banks are a prime example of a low-profit-margin, high-turnover company.

Return on Equity

The return on equity (ROE), also known as return on investment (ROI), is the best predictor of the return since it is the product of the firm's financial performance, asset turnover, and debt-equity management. Leveraging provides additional revenue for stockholders in the form of increased equity if a business can borrow money and receive a higher return than the debt cost.

Return on Equity = Net Profit /Average Stockholders' Equity

Since, like ROA, it more accurately explains how ROE is calculated, the return on average equity is a better name for ROE. Multiplying the return on assets by the debt-to-equity management ratio yields the return on equity.

Since a company's assets equal its liabilities plus stockholders' equity, the debt-to-equity ratio is relative to the amount of debt held by the company. This ratio indicates how much leverage the company is using, and the ROE shows how efficiently management is using debt to increase stockholder returns. Using debt, on the other hand, entails risk because interest must be charged even though times are tough.

NPL

The nonperforming loan ratio, or NPL ratio, is the proportion of nonperforming loans in a bank's loan portfolio relative to total outstanding loans. A nonperforming loan (NPL) is a loan that has defaulted due to the borrower's inability to make timely payments for a period of time. Although the basic elements of nonperforming status will vary depending on the terms of the loan, "no payment" is typically characterized as no payments of principal or interest. Depending on the sector and the form of loan, the prescribed duration varies as well. However, in most cases, the duration is 90 to 180 days (troy segal, 2020).

According to a major discovery, many owners and directors abused or misused their privileged positions or undermined their fiduciary duties by participating in self-serving activities (2005). Providing company owners with unsecured loans, one of the cases involved executives and others, as well as associated companies, whose violations were in excess of their banks' statutory lending limits, which was illegal. Over the years, a critical review of the country's banking system found that weak corporate governance was one of the industry's issues.

Independent variables

In this study there is one dependent variable namely central bank regulation, where regulation is presented by liquidity, credit risk management and reserve requirement.

Reserve Requirement

The total amount of money a bank must have on hand at all times during the night is known as the reserve requirement. It is expressed as a percentage of the total deposits of the bank. The central bank of each country determines the percentage figure. The Federal Reserve Board of Governors sets the Reserve Requirement for Member Banks in the United States. The reserve could be held in the bank's vault or deposited at a Federal Reserve Bank near you. Reserves must be maintained by commercial banks, savings banks, savings and loan societies, and credit unions. It also refers to US-based foreign bank branches and departments, as well as Edge Act companies and agreement companies.

Reserve criteria may also be used for monetary regulation and modified along the business cycle, similar to monetary policy, to offset below-trend demand inflation, for example Federico, Vegh, and Vuletin (Federico, Vegh, and Vuletin, 2013). The channel works by manipulating credit growth by deposit management, which results in an indirect interest rate change. Some countries have used RRs in this way to avoid capital inflows that could exacerbate credit booms. Raising reserve requirements is less likely than changing central bank policy ratesif they encourage banks to raise lending rates without raising deposit rates, they can attract capital inflows (Montoro and Moreno 2011). Reserve requirements, according to recent research, lead to higher lending rates, while increasing policy rates lead to higher lending and deposit rates, potentially attracting capital inflows from increased carry trade opportunities (Brei & Montoro 2018).

Liquidity management

If you're looking for a way to express yourself in a special way, Kimberly A. recommends Liquidity management (2020) refers to a company's ability to fulfill financial commitments through cash flow1, funding activities, and capital management. Revenue and cost-generating operations, capital and dividend programs, and tax policies all have an effect on liquidity management many companies' properties and investments, such as real estate, inventory, and machinery, account for a large portion of their value. However, in order to survive, any company

must have some cash on hand to cover expenses and make short-term investments. Liquidity management is a series of ongoing policies and processes that ensure the company's ability to meet its financial obligations pay for products and services as required, make payroll, and invest in new opportunities with cash on hand. And prosperous businesses may go bankrupt if they don't have enough cash to pay their bills. And this happens all the time: many companies buy inventory or incur manufacturing expenses before their buyers pay for them, and they need cash on hand to keep working in the meantime Companies typically spend more as they expand, on new hires, new buildings, new inventory, and new equipment, but if they have to wait too long for payment from their customers and They could fall behind on their obligations if they don't have extra cash on hand, resulting in additional debt or even bankruptcy. A liquidity management strategy suggests that the company has a mechanism in place to meet its short-term and immediate cash obligations without incurring substantial losses. It means that the company is controlling its assets, such as cash, to ensure that all commitments are met, all expenses are covered, and financial stability is maintained. A liquidity management strategy for over-leveraged companies involves devising strategies to bridge the gap between cash on hand and debt obligations.

Credit risk management

Risk management that is successful the scheme gives commercial banks and private lenders a competitive advantage by improving their decision-making, in addition to mitigating economic risk. Implementing a credit risk management approach would encourage lenders to feel more comfortable about their finances while also providing borrowers with loans that they can afford to help them boost their credit. Understanding the credit risk management process, best practices, and strategies is the first step in implementing a risk assessment strategy. When a borrower applies for a loan, the lender must determine whether or not they will be able to repay it in the future. A borrower's current financial condition and profits, as well as information on their current financial position, are important to many lenders and a borrowing and repayment history Risks in the banking industry are inevitable, but that doesn't mean they can't be minimized. Commercial banks and private lenders are working hard to reduce the possibility of fraud and cybersecurity attacks in order to protect their clients' financial information, but they must also protect their own treasury from fraudulent borrowers. The lending party takes a financial loss

when a borrower fails to make a monthly payment or worse, defaults on a loan. Even if the lender accepts collateral, the time and resources it takes to turn it into cash will result in a loss. As a result, it's important for financial institutions to carefully analyze each borrower's credit risk Before signing off on a loan, they must consider their own reserves and environmental considerations, as you can see.

Control Variables/moderating

1. **Age** is also an important variable on the firm's performance as it talks about the experience possessed by the firm in the operations. According to Erics on &Pakes (1995), firms are learning and over time they discover what they are good at and learn how to be more efficient. Age measured by counting the time when the bank was established/incorporated in Rwanda. This information will be obtained from banks' websites (history page).

2. **Size** of the firm has shown to have an impact on performance due to the advantages faced by the firms with a particular level of growth. Bank's size is measured using total assets as a proxy. In this study, total assets will be transformed into natural logarithms to avoid outlier effects as well. Data on this variable will be collected from banks' annual audited reports.

To assess how the introduction of central bank regulations affect bank performance, an Ordinary Least Square estimation technique is used and the following equation shows the regression model used.

Performance it $=f$ (CBR t + bank controls it) $+\varepsilon$ it

According to the formula, the performance of commercial bank equal to function of summation of Central bank regulations, bank controls at firm/bank level and error time over specific time

Where:

i: individual firm / bank

t: Time

ε: Error time

f: Function

3.5. Data Analysis

I used STATA software to analyze, interpret and communicate the results. Descriptive statistics, correlation and regression were reported in the analysis section.

3.7. Limitation and Ethical issues

Some important ethical concerns that should be taken into account while carrying out research are: anonymity, confidentiality and informed consent. The study is limited to the availability of data. However, this study focuses to the impact of credit management on performance. The financial means, proximity and time period allocated to this study would not allow for an extensive research into the topic. In spite of these limitations, it hoped that this work would provide useful insights into the academic area the study is limited to the period of 2010 up 2018. The ethical issues must take into consideration when collecting data. in conducting my research using the data for academic purposes only is also very important ethically and I will often specify the source of data, designing the study, consent methods, statistical methodology, and interpretation of the results.

The researcher employs descriptive statistical analysis, which involves looking at the means. The Statistical Package for Social Sciences (SPSS) program was used to conduct the research. The data from their audited financial statements and annual reports was first coded before being entered and interpreted in the program cross-checking the responses on a scale of 1 to 6. The data were summarized into frequencies and percentages, and graphs were used to display the information. The data were analyzed using both qualitative and quantitative methods. The quantitative analysis and the qualitative approach also clarified the details derived from commercial bank financial statements the scores of data from the reports were developed using numeric measures.

The association between variables was tested using correlation analysis with two-tailed significant tests, while the overall impact of central bank regulation on the financial results of commercial banks in Rwanda will be tested using multiple regression. The statistical significance of two variables will be evaluated using the regression analysis test.

3.6. Operation Definitions of Variables

This part indicates the definitions of variables based on indicators mentioned in conceptual framework as it indicated below:

3.6.1 Central bank regulations

- Central bank regulations are based on the following indicators:

- Reserve requirement

- Liquidity management

- Credit risk management

CHAPTER 4

DATA ANALYSIS AND INTERPRETATION

4.0. Introduction

The previous chapter discussed various data collection techniques, the purpose of this research was to investigate the impact of central bank regulations on financial performance of commercial banks in Rwanda, so this chapter aims to present the collected data, evaluate, and interpret the findings.

The researcher conducted a study to examine financial statements by determining the impact of central bank regulations on commercial bank financial results in Rwanda. The performance of commercial banks in Rwanda is measured using ROA, NPL and ROE calculations. Data was gathered from a number of Rwandan commercial banks, including I& M Bank, Ecobank Rwanda, Banque Populaire du Rwanda, Bank of Kigali, Access Bank Rwanda, Cogebanque, and Access Bank are some of the companies that operate in Rwanda, the following report was focused on the study's objectives, which included determining the impact of reserve requirements on commercial banks' financial results in Rwanda, examine the impact of liquidity management on commercial bank financial performance in Rwanda, as well as the impact of credit-risk management on commercial bank financial performance in Rwanda.

The research data was gathered exclusively through audited financial reports as the sample from the following six commercial banks.

4.1 Profile of sampled banks

1. Access Bank Ltd is the sixth largest bank in Nigeria by asset, officially acquired BANCOR SA after its successful acquisition of a 75% stake. Access Bank (Rwanda) Ltd is a commercial bank that operates in Rwanda. The bank was officially launched in January, 2009 after fulfilling all regulatory requirements. Formerly BANCOR S.A Rwanda and created in 1995 by foreign investors, the bank was restructured in 2001 after its takeover by Rwandan and South African private investors. the Bank has since expanded its operations by extending its network to Rubavu, Musanze, Rusizi, etc. in 2018 access bank has total loans of USD 28788339; total deposit USD 76269869; Return on assets ratio 0.017; return on equity 0.159; and 159 employees in Rwanda.

2. Bank of Kigali was incorporated in the Republic of Rwanda on December 22nd 1966 as a joint venture between the Government of Rwanda and Belgolaise, the subsidiary of Fortis Bank. The public private partnership involved the ownership of 50% of the ordinary share capital. In compliance with revised laws relating to private companies in Rwanda, in 2011 the Bank changed its name from Bank of Kigali S.A to Bank of Kigali Limited and to BK Group PLC in 2017 with 3 subsidiary companies namely BK General Insurance, BK TecHouse and BK Capital. Bank of Kigali in 2018 has total equity USD 100396008; total deposits USD 762698690; borrowings USD 4323789; net income USD 16570950; total revenue USD 99063132, return on assets ratio 0.017; return on equity 0.159;liquidity ratio 0.759; 79 branches and 1200 employees.

3. Banque Populaire du Rwanda Public Limited Company (BPR PLC), formerly Banque Populaire du Rwanda SA, is a commercial bank in Rwanda. The bank is licensed by the National Bank of Rwanda, the central bank and national banking regulator. BPR is a retail (consumer) bank, offering products that include current and savings accounts, debit and credit cards, mortgages and loans. As of December 2018, BPR was a medium-sized financial services provider in Rwanda. Its total asset valuation was RWF:273.201 billion (US$320 million), with RWF:42.568 billion (US$50 million) in shareholder funds with 163 branches.In 2018, BPR employed about 1,411 staff at that time. However, following the acquisition by Atlas Mara, and the merger with BRD Commercial, about 300 people were terminated after acquisition. BPR in 2018 has total deposits USD 217262721; borrowings USD 2488048; net income USD 5412825; total revenue USD 39405849; return on assets ratio 0.019; return on equity 0.134; Liquidity ratio 0.137.

4. Coge Banque was established in July 1999 by forty-two private Rwandan investors. At that time, the insurance company Compagnie Générale d'Assurance et de Reassurance (COGEAR), was the largest shareholder, with 34% ownership. Has 29 branches with 497 employees' staff and in 2018 has total equity USD 26436833; total deposits USD 139222551; borrowings USD 32989430; net income USD 4793846; total revenue USD 27684635; loans to deposit ratio 0.889; return on assets ratio 0.023; return on equity 0.181; cost to income ratio 0.794; net margin 0.173 and liquidity ratio 0.185.

6. I&M bank was opened in 1963 under the name (French "Banque Commerciale du Rwanda" (BCR)) or "Commercial Bank of Rwanda". In the beginning, it was wholly owned by the Government of Rwanda. In 2004, it was privatized. As of April 2010, Actis Capital owned 80 percent and the Rwandan government owned the remaining 20 percent of the financial institution. Actis Capital is a private equity investment firm, headquartered in London, United Kingdom, that specializes in investments in developing countries. The firm's investment portfolio was almost US$5 billion as of April 2010.

In July 2012, Actis Capital divested from BCR by selling its shares to a consortium comprising the I&M Bank Group from Kenya, PROPARCO from France, and the German Investment Corporation. The Rwandan government retained its shares in the bank. In August 2013, the bank rebranded to I&M Bank (Rwanda) to reflect its current shareholding. In 2018 I&M bank Has 14 branches; total equity USD 39567498; total deposits USD 192840285; borrowings USD 14362917; net income USD 10817422; total revenue USD 38218621 loans to deposit ratio 0.876; Return on assets ratio 0.036; Return on Equity 0.273; Cost to income ratio0.484; Net Margin 0.283 and Liquidity ratio0.099.

4.2 Descriptive statistics

This chapter presents findings from the study the results are presented in accordance with the sets of statistics; correlation matrix, and regressions respectively.

Table 1:Summary statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
ROA	53	0.031	0.035	-0.043	0.225
ROE	53	0.134	0.139	0.496	0.360
NPL ratio	53	5.602	2.677	2.1	13.5
Age	53	31.717	14.898	11	55
Regulation	53	0.453	0.503	0	1
Log(Total assets)	53	18.879	0.731	17.519	20.593
Share capital	53	17.308	1.051	15.885	19.087

Source: *Secondary data, 2020*

Table.1 reports descriptive statistics for the variables used in this study for the period 2010-2018. Results show that the banking industry in Rwanda has older banks as the average age of the bank is 31 years old with the oldest aged 55 years and the youngest aged 11 years. In terms of stability, results show that banks have lower non-performing loans (below the 5% standard) but with lower 2%. In terms of performance, banks return on assets are on average as low as 3% across all banks in the sample.

Table 2: Correlation matrix

Bankname	ROA	ROE	NPL	logTA	Share capital
Access	0.015	0.092	5.067	17.889	16.001
BPR	0.003	-0.061	10.578	18.981	16.753
Bank of kigali	0.036	0.213	5.756	20.083	18.347
COGEBANQUE	0.019	0.168	3.956	18.693	17.028
Ecobank	0.072	0.134	4.589	18.714	18.702
I&M Bank	0.040	0.274	3.425	18.923	16.981
Total	0.031	0.134	5.602	18.879	17.308

Correlation matrix

	ROA	ROE	NPL	AGE	Regulation	logTA
ROA	1.0000					
ROE	0.4385	1.0000				
NPL	-0.3685	-0.5957	1.0000			
AGE	0.0018	0.2289	0.2035	1.0000		
Regulation	0.0881	0.2071	0.0248	0.1639	1.0000	
logTA	0.1216	0.2868	0.1488	0.6881	0.4027	1.0000

Table 2 reports correlation matrix results, most variables are not highly correlated to each other (correlation coefficients are less than 0.7) except a few variables including total assets whose correlations are above 0.9. They are included in subsequent regressions for a number of reasons. We include age and total assets as these appear on different sides of the balance sheets and thus, they do not convey the same meaning. Second, both loans and deposits are included because deposits serve as key inputs for bank lending and in our regression, one is a dependent variable (loans) and another is a control variable (deposits). Although bank assets include loans, they can be used together in the regressions as total assets is a proxy for banks' sizes, and loans are used as bank performance measures in our regressions.

Table 3. below report comparative results of other bank characteristics in the sample. results show that I&M bank is the oldest bank having been incorporated in the 1960s as Banque Commerciale du Rwanda (BCR) and was acquired by I&M bank holdings to become I&M bank Rwanda. COGEBANQUE is the youngest in the industry (sample) and was incorporated in Rwanda as a new bank in 1999. Access bank is a foreign-owned bank by Access bank group PLC from Nigeria. It was incorporated in Rwanda through the acquisition of former BANCOR bank in August 2008. Ecobank, a pan African bank was incorporated in Rwanda as formerly BCDI, and later was acquired by Ecobank Transnational (ETI) from Lomé, Togo. It now operates a branch of Ecobank.

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In other bank characteristics, Table 3. shows that banks are on average of the same size (total assets) in the range of 17-18 million US Dollars. Banks on average also hold comparable liquid assets as shown in the table. In terms of share capital Bank of Kigali holds higher share capital compared to other banks. In terms of bank ROA, Ecobank has more than other banks on average being pan African bank is being supported by parent company.

Source: *Secondary data, 2020*

 Results on the effects of central bank regulations and other bank-level variables on the performance of commercial banks. Central bank regulations moderately increase banks' return on assets; However, it does not reduce the cost of intermediation. These results may imply that cost reduction could be a bank-level strategy and thus may not be explained by credit regulations shows that older banks have higher returns on assets, moderately have lower non-performing loans and moderately lend more, and are relatively stable compared to younger banks. In other findings, banks that hold higher liquid assets and lend little, these results harmonize with previous studies on African financial systems (e.g.Honohan and Beck, 2007; Andrianova et al., 2015) that because of no trust on opaque customers, African banks tend to lend little and instead hold higher liquid assets, it also shows that banks incur higher operational and intermediation costs in managing loans and loans defaults.

Other findings:

This study also attempts some alternative estimations. Specifically, it assesses whether there are differences in banks' performance prior to the establishment of the central bank regulations and after its establishment and operations. The central bank regulations were established by the central bank (BNR) in 2015. This study runs to estimations. The first estimation pertains to the period before the regulations were established and results are reported. The second estimation pertains to the period after 2015 and results are reported

Table 4: Significant differences between the periods pre-2009 and post-2009

Year		ROA	ROE	NPL	logTA	sharec~l
2010	Mean	0.026	0.091	5.34	18.462	17.321
2011	Mean	0.031	0.109	5.233	18.499	17.236
2012	Mean	0.035	0.078	5.667	18.632	16.910
2013	Mean	0.022	0.076	5.65	18.687	17.029
2014	Mean	0.027	0.181	6.187	18.842	17.171
2015	Mean	0.025	0.148	6.15	19.001	17.263
2016	Mean	0.020	0.133	5.933	19.142	17.525
2017	Mean	0.023	0.183	5.733	19.253	17.593
2018	Mean	0.062	0.197	4.48	19.331	17.720
Total	Mean	0.031	0.134	5.602	18.879	17.308

The results show in the table above variations of performance of commercial banks pre implementation of commercial banks regulation by BNR and post implementation, before implementation performance was not good as banks were giving out a lot of loans without critical analysis hence resulting high non-performing loan ratio due to many defaulters however after post implementation trend started to decrease as portrayed on table above the ratio started to decrease as well as performance on other metrics was increasing.

This can be shown in year of 2010 NPL ratio was 5.3% and 2018 NPL ratio was 4.48% hence central bank regulations have positive effect on commercial performance in Rwanda.

ROA also as metric of measurement, it indicates during 2010, ROA was 2.6% while in post implementation was 6.2% so there was significance effect.

ROE pre implementation of regulations was 9.1% while in post it was 13.4% hence indicating great effect of central bank regulations on financial performance of commercial banks in Rwanda.

	(1) ROA	(2) ROE	(3) NPL
Regulation	-0.00358	0.0353	0.298
	(-0.39)	(0.52)	(0.27)
Age	0.000547	0.00276	0.00293
	(1.45)	(0.99)	(0.07)
Log (Total assets)	-0.0199*	-0.0386	1.703
	(-2.09)	(-0.55)	(1.51)
Share capital	0.0190***	0.0424	-0.979
	(4.09)	(1.24)	(-1.78)
	0.0594	0.0189	-9.480
	(0.45)	(0.02)	(-0.61)
N	35	35	35

t statistics in parentheses, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Source: *Secondary data, 2020*

Results in Tables 4 and 5 show that there are significant differences between the periods pre-2015 and post-2018 for the effects of central bank regulations on the performance in Rwanda. The differences are observed on the changes in the coefficients (economic size) as well as the significance levels. Specifically, whereas findings in pre are similar to the overall results reported, results in Table 5 for the period after 2015 show significant changes with respect to the effects of central bank regulations on the performance and stability variables. The coefficients on non-performing loans reduced implying that were significant reduction in banks' non-performing loans after the establishment of the central bank regulations. For dependent variables, the coefficient significantly increases such as on return on assets, ROE and ROA. Other variables do not significantly change post-2015 period implying that central bank regulations have a very

higher positive impact on performance of banks compared to other bank-level variables. This leads to the confirmation of this study's hypothesis that adherence compliance central bank regulations result to performance.

Post implementation of central bank regulations

	(1) ROA	(2) ROE	(3) NPL
Regulation	-0.0108	0.0649	-2.811***
	(-0.21)	(-0.58)	(0.80)
Age	0.000102	0.000330	-0.000231
	(0.09)	(0.13)	(-0.00)
Log (Total assets)	-0.0287	0.0565	0.698
	(-0.86)	(0.80)	(0.31)
Share capital	0.0364*	0.0124	-0.891
	(2.24)	(0.36)	(-0.82)
	-0.0457	-1.085	5.006
	(-0.10)	(-1.09)	(0.16)
N	18	18	18

t statistics in parentheses. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

As per above table it shows great effect if central bank regulations on financial performance of commercial banks in Rwanda as per trend there is decrease from 0.289 to -2.811 which shows relationship between central bank regulation with financial performance of commercial banks in Rwanda.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

This chapter contains the final analysis of the study findings, as well as the conclusion, recommendations, and suggestions for future research. Both the analysis of findings and the recommendations represent the study's objectives.

5.1 Introduction

This chapter presents the discussions on the findings in chapter four. It includes the conclusions and recommendations. This research examines the impact of central bank regulations on financial performance of commercial banks in Rwanda in a panel analysis. My first findings are that for the performance of Rwandan commercial banks during the establishment of central bank regulations, apart from performance indicators, ROA, ROE and NPL of banks are significant for banking sector, as estimated by my model. In order to analyze significant factors for banking stability I reviewed the literature and analysis. I included NPL, ROE and ROE as independent variables that control stability. Our first findings are that for the stability of Rwandan banks during the establishment of central bank regulations, stability indicators are significant.

5.2 Discussion

The findings are in the relation with the objectives of the study.

5.2.1 To assess the outcome of reserve requirement on financial performance of commercial banks in Rwanda

The first objective sought to assess the outcome of reserve requirement. the study assess the outcome of reserve requirement on financial performance of commercial banks in Rwanda, facts from analysis shows that all banks have moderate non-performing loans with the influences of other variables like the age of the firm which indicate firm experience have a positive impact on efficiency and sustainability and bank size indicating total assets was negatively related to the efficiency sustainability and profitability of bank and share capital also is medium thus reflect

that access to sources of financing. Therefore, they have stability due to the availability of equity from shareholders. through panel, I found that the bank that respect central bank regulations has low percentage of non-performing loans and thus would lead the bank to the performance. this leads to the confirmation of the study's hypothesis that higher levels of share capital (age) of bank the higher the performance.

5.2.2 To examine the influence of liquidity Management on financial performance of commercial banks in Rwanda

The second objective sought to examine the influence of liquidity Management on financial performance of commercial banks in Rwanda. the findings revealed that a bank with greater return on equity has been in business for long period of time bank performance is better and all accelerated by the availability of share capital While banks lack information needed to screen loans applications and to monitor borrowers by using more liquid assets. It was also noted that the spread of borrowers' information has impact on bank performance in Rwanda. More over a low return on assets blamed on complex loans processes on the markets whereby the banks had enhanced the request of borrower's information this indicated that banks increased the performance by forcing to reduce their net interest margins because of much loans available to the bank but do not approached for new borrowers. On the other hand, whenever borrowers fail to repay their loans banks are forced to pass on the cost of defaults to other customers through increased interest rates and other fees.

5.2.3 To identity the result of credit-risk management on financial performance of Commercial Banks in Rwanda

The third objective sought to identity the result of credit-risk management on financial performance of Commercial Banks in Rwanda.

. The study findings revealed that there was a positive and significant relationship between central bank and management of non-performing loans among commercial banks in Rwanda. The findings also revealed that central bank regulations had a positive and significant relationship with the management of non-performing loans. The findings revealed that central bank regulations had helped in lowering of loans defaulted and cost of return for good borrowers which has motivated many borrowers to repay their loans. difference is observed in the changes in the economic size where the coefficient on NPLs decreased after implementation of central

bank regulations had also acted as a pivotal role in reducing information asymmetry that exist between banks and the central bank thus helping in the assessment of credit requests which has helped to mitigate risks of bad debts. Credit information sharing had also reduced moral hazards and adverse selection and has prevented borrowers from overcommitting to credit facilities all which has helped in the stability of NPLs. In terms of stability results showed that banks have lower NPLs but with high share capital in terms of performance banks have moderate return.

5.3 Conclusions

This study attempted to ascertain the determinants of NPL in Rwandan commercial banks using a panel dataset. The study's empirical results supported the view that non-performing loan can be explained by bank specific control variables such as loans; liquid assets; total assets; equity. Contrary to national evidence, results showed that large banks were not necessarily more effective in screening loan, customers when compared to their smaller counterparts, since there is a significant relationship between the age of a bank and the level of NPL. I also found that older bank has more probability of getting more liquid asset which were likely to incur lower NPL, thus helping to reduce the default of loans and reinforce the performance of commercial banks.

The study concludes that the independent variable, which is banking regulations on the performance of commercial banks in Rwanda has positive impact on the financial performance defined by non-performing loans, ROA and ROE and performance defined by return on asset, non-performing loan on commercial banks in Rwanda. Further, the study found that there is a big relationship with the banking regulations on the performance of commercial banks in Rwanda which made a researcher to confirm H_0 by saying that there is a significant relationship between Central Bank Regulations and financial performance of commercial banks in Rwanda and reject H_1 by saying that there is no a significant relationship between Central Bank Regulations and financial performance of commercial banks in Rwanda.

5.4 Recommendations

The study recommends that for the commercial banks in Rwanda to enhance loans performance and become sustainable, there is a need for continued engagement with central bank regulations as well as other commercial Banks in Rwanda should make more use of the central bank

regulations so that they control the NPL ratio relating to the borrower default and giving out many loans.

The recommendations based on the major findings are that commercial banks should embrace and use central bank regulations as a tool to reduce and control non-performing loans and stability resulting from chronic defaulters. The study also recommends commercial banks to embrace positive credit risk management in order to increase shareholders value.

Commercial banks need to make a bigger effort to acquire full proof information they require in order to make relevant decisions over the credit requests they receive irrespective of their operational costs incurred to achieve this as the related cost of default would in the long run outweigh it.

5.5 Suggestions of Further Researcher

Lastly, Researcher cannot claim that this research is exhaustive. Several issues, associated with the limitations inherent in this study, require further research considerations. The similar study can be done in other organizations within the country in order to augment the findings.

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Appendix

STATEMENT OF COMPREHENSIVE INCOME FOR THE YEAR ENDED 31ˢᵗ DECEMBER 2015

|	Note	2015 Rwf'000	2014 Rwf'000
Interest and similar income	3	15,762,012	14,073,054
Interest and similar expense	4	(4,491,131)	(4,096,747)
Net interest income		11,270,881	9,976,307
Fee and commission income	5(a)	3,483,970	2,810,279
Fee and commission expense	5(b)	(198,357)	(148,308)
Net fees and commission income		3,285,613	2,661,971
Net foreign exchange income		4,803,683	4,240,186
Fair value gain/(loss) on derivative financial instruments	6	25,977	(978)
Other operating income	7	480,611	555,732
Operating income		19,866,765	17,433,218
Impairment losses on financial assets	8	(1,476,314)	(536,098)
Operating income after impairment losses		18,390,451	16,897,120

|			
Personnel expenses	9	(5,978,969)	(6,238,915)
Depreciation of property and equipment	10	(694,215)	(681,830)
Amortisation of intangible assets	11	(94,839)	(133,144)
Other operating expenses	12	(4,498,342)	(3,385,316)
Total operating expenses		(11,266,365)	(10,439,205)
Profit before tax		7,124,086	6,457,915
Income tax charge	17(b)	(2,199,787)	(1,896,312)
Profit for the year		4,924,299	4,561,603
Other comprehensive income:			
Fair value (loss)/gains on available for sale financial assets		(317,326)	139,970
Effect of deferred tax on available for sale	17(a)	95,198	(41,991)
Net change in available for sale financial assets		(222,128)	97,979
Total comprehensive income		4,702,171	4,659,582

STATEMENT OF FINANCIAL POSITION AS AT 31ˢᵗ DECEMBER 2015

	Note	2015 Rwf'000	2014 Rwf'000
ASSETS			
Cash in hand	13(i)	3,632,003	3,850,368
Due from the National Bank of Rwanda	13(ii)	8,054,234	3,888,910
Due from other banking institutions	13(iii)	16,818,145	31,493,452
Derivative financial instruments	6	72,027	-
Financial investments - held for trading	14(a)	7,596,882	1,767,229
Loans and advances to customers	15	94,028,874	82,749,132
Financial investments - available for sale	14(b)	16,688	394,650
Financial investments - held to maturity	14(c)	35,801,888	20,776,694
Other assets	16	1,454,348	937,693
Property and equipment	10	3,982,220	4,094,213
Intangible assets	11	152,117	141,051
Deferred tax assets	17(a)	217,342	214,258
TOTAL ASSETS		171,826,768	150,307,650
LIABILITIES			
Deposits from customers	18	119,884,096	114,467,526
Deposits from banks and other financial Institutions	19	17,327,252	5,985,162
Tax payable	17(b)	544,282	156,657
Other payables	20	5,338,661	4,266,885
Corporate bond	21	523,188	732,462
Derivative financial instruments	6	-	978

Borrowed funds	22	2,639,073	1,888,701
Provisions	23	616,166	595,258
Deferred tax liabilities	17(a)	493,374	599,444
TOTAL LIABILITIES		147,366,092	128,693,073
EQUITY			
Share capital	24(a)	5,000,000	5,000,000
Retained earnings		17,478,880	14,530,653
Fair value reserve	24(b)	11,796	233,924
Proposed dividend	24(c)	1,970,000	1,850,000
Total equity		24,460,676	21,614,577
TOTAL LIABILITIES AND EQUITY		171,826,768	150,307,650

The financial statements were approved by the Board of Directors on.................17.03..........2016 and signed on its behalf by:-
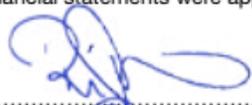
....
Director
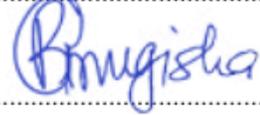
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Director

55

statement of comprehensive income
for the year ended 31st december 2017

	Note	31 Dec 2017 Frw'000	31 Dec 2016 Frw'000
Interest and similar income	4	24,483,000	20,441,506
Interest and similar expense	5	(6,918,428)	(5,836,180)
Net interest income		17,564,572	14,605,326
Fees and commission income	6(a)	3,187,321	2,795,950
Fees and commission expense	6(b)	(527,091)	(384,439)
Net fees and commission income		2,660,230	2,411,511
Net foreign exchange income		3,125,829	3,466,676
Net fair value (loss) /gain on financial assets and liabilities designated at fair value through profit or loss	7	(221,939)	821,898
Other operating income	8	507,933	90,958
Operating income before impairment		23,636,625	21,396,369
Impairment losses on loans and advances to customers	9	(598,745)	(554,373)
Operating income after impairment losses		23,037,880	20,841,996
Employee benefits	10	(7,132,211)	(6,769,300)
Depreciation of property and equipment	11	(954,547)	(632,441)
Amortisation of intangible assets	12	(87,182)	(103,485)
Operating expenses	13	(5,015,609)	(4,921,565)

Profit for the year		6,513,401	5,803,151
Other comprehensive income:			
Other comprehensive income to be reclassified to profit or loss in subsequent periods			
Fair value loss on available for sale financial assets		-	(15,862)
Deferred income tax on fair value adjustment on available for sale	19(a)	-	4,759
Net loss on available for sale financial assets		-	(11,103)
Other comprehensive Income not to be reclassifies to profit or loss in subsequent period			
Revaluation Surplus on land and Buildings		-	3,057,715
Deferred tax revaluation	19(a)	-	(917,314)
Net gain on revaluation on land and buildings		-	2,140,401
Total comprehensive income		6,513,401	7,932,449
Earnings per share			
Basic and diluted (Frw per share)	31	12.92	11.61
Dividend payout ratio		40%	40%

The notes on pages 59 to 109 are an integral part of these financial statements

statement of financial position
as at 31st December 2017

	Note	31 Dec 2017 Frw'000	31 Dec 2016 Frw'000
ASSETS			
Cash in hand	14(i)	3,021,548	5,048,664
Due from the National Bank of Rwanda	14(ii)	22,675,563	14,202,956
Due from other banking institutions	14(iii)	30,804,171	31,844,955
Non-current assets held for sale	20	2,120,000	1,200,000
Derivative financial instruments	15	68,510	284,782
Investment securities - held for trading	16(a)	17,920,975	16,631,698
Investment securities - available for sale	16(b)	826	826
Investment securities - held to maturity	16(c)	19,812,580	16,492,504
Loans and advances to customers	17	146,513,373	111,083,056
Other assets	18	2,973,118	1,217,924
Property and equipment	11	12,252,110	7,992,369
Intangible assets	12	2,011,418	139,126
TOTAL ASSETS		**260,174,192**	**206,138,860**
LIABILITIES			
Deposits from customers	21	177,422,108	134,152,364
Deposits from banks and other financial Institutions	22	31,708,600	26,707,032
Current income tax		1,098,315	978,698
Other payables	23	6,232,278	5,565,809
Provisions	26	455,331	803,247
Corporate bond	24	104,638	313,913
Borrowed funds	25	6,726,313	5,987,275
Deferred income tax	19(a)	1,362,083	1,207,397
TOTAL LIABILITIES		**225,109,666**	**175,715,735**
EQUITY			
Share capital	27(a)	5,050,000	5,000,000
Share premium	27(a)	400,000	-
Retained earnings		24,056,367	20,250,802
Available for sale reserve	27(b)	693	693
Revaluation reserve	27(c)	2,140,401	2,140,401
Other reserves	27(d)	812,065	709,229
Proposed dividend	27(e)	2,605,000	2,322,000
Total equity		**35,064,526**	**30,423,125**
TOTAL LIABILITIES AND EQUITY		**260,174,192**	**206,138,860**

The notes on pages 59 to 109 are an integral part of these financial statements

Report of the Independent Auditor
to the Shareholders of I&M Bank (Rwanda) PLC (continued)

Auditor's responsibilities for the audit of the financial statements (continued)

Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by directors;

- Conclude on the appropriateness of director's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Bank's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Bank to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

Report on other legal and regulatory requirements

Law no. 17/2018 of 13/04/2018 governing companies requires that in carrying out our audit we consider and report to you on the following matters. We confirm that:

i. There are no circumstances that may create threat to our independence as auditor of the Bank;
ii. We have obtained all the information and explanations which to the best of our knowledge and belief were necessary for the purposes of our audit;
iii. In our opinion proper books of account have been kept by the Bank, so far as appears from our examination of those books; and
iv. We have communicated to the Bank's Board of Directors, through a separate management letter, internal control matters identified in the course of our audit including our recommendations in relation to those matters.

For PricewaterhouseCoopers Rwanda Limited

Moses Nyabanda
Director

_____ March 2019
Kigali, Rwanda

Statement of Profit or Loss and other Comprehensive Income for the year ended 31st December 2018

	Note	2018 Frw'000	2017 Frw'000
Interest income	8	30,960,821	24,483,000
Interest expense	9	(10,734,531)	(6,918,428)
Net interest income		**20,226,290**	**17,564,572**
Fee and commission income	10	3,112,599	3,187,321
Fee and commission expense	10	(696,614)	(527,091)
Net fee and commission income	10	**2,415,985**	**2,660,230**
Net trading income	11	3,222,590	2,903,890
Other operating income	12	922,611	507,933
Net operating income before change in expected credit losses and other credit impairment charges		**26,787,476**	**23,636,625**
Net impairment charge on loans and advances	21 (c)	(1,041,472)	(598,745)
Net operating income		**25,746,004**	**23,037,880**
Staff costs	13	(8,056,864)	(7,132,211)
Premises and equipment costs	13	(832,438)	(700,850)
General administrative expenses	13	(4,639,628)	(4,314,760)
Depreciation and amortisation	13	(1,399,652)	(1,041,728)
Operating expenses		**(14,928,582)**	**(13,189,549)**
Profit before income tax	14	10,817,422	9,848,331
Income tax expense	15 (a)	(3,354,850)	(3,334,930)
Net profit for the year after tax		**7,462,572**	**6,513,401**
Other comprehensive income			
Items that are or may be reclassified to profit or loss:			
Fair value through the Other Comprehensive Income (FVOCI)		157,599	-
Deferred tax - FVOCI	25	(47,280)	-
Reversal of revaluation reserve		(126,680)	-
Total other comprehensive income for the year		(16,361)	-
Total comprehensive income for the year		**7,446,211**	**6,513,401**
Basic and diluted earnings per share - (Frw)	16	14.78	12.92

The notes set out on pages 64 to 134 form an integral part of these financial statements.

Statement of Financial Position as at 31st December 2018

	Note	2018 Frw'000	2017 Frw'000
ASSETS			
Cash and balances with National Bank of Rwanda	18	23,840,151	25,697,111
Loans and advances to banks	20	21,840,408	25,223,803
Loans and advances to customers	21 (a)	169,032,838	146,513,373
Financial assets at fair value through profit or loss (FVTPL)	22 (a)	6,617	17,989,485
Financial assets measured at fair value through other comprehensive income (FVOCI)	22 (b)	5,832,253	826
Other financial assets at amortised cost	22 (c)	47,703,866	19,812,580
Property and equipment	23	17,076,248	12,252,110
Intangible assets - software	24	4,785,353	2,011,418
Due from group companies	26 (a)	1,342,900	5,580,368
Other assets	27	2,704,999	5,093,118
TOTAL ASSETS		**294,165,633**	**260,174,192**
LIABILITIES AND SHAREHOLDERS' EQUITY			
Liabilities			
Deposits from banks	28	38,097,584	28,600,057
Items in the course of collection	19	1,571,851	1,978,173
Deposits from customers	29	190,840,285	177,422,107
Deferred income tax	25	1,500,217	1,362,083
Due to group companies	26 (b)		
Other liabilities	30		
Current income tax	15 (b)	872,363	1,098,315
Long term debt	31	5,543,644	6,617,003

		254,598,135	225,109,666
Shareholders' equity			
Share capital	33(a)	5,050,000	5,050,000
Share premium	33(b)	400,000	400,000
Revaluation reserves	33(c)	2,011,095	2,140,401
Retained earnings		28,763,104	24,056,367
Proposed dividend		2,985,000	2,605,000
Statutory credit risk reserve	33(e)	145,151	812,065
Fair value reserve	33(d)	213,148	693
		39,567,498	35,064,526
TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY		294,165,633	260,174,192

The notes set out on pages 64 to 134 form an integral part of these financial statements.

Statement of Changes in Equity for th...

2018:

At 1st January 2018
Day one transition adjustment
Government securities amortised cost (Note 41(d))
Fair value through the other comprehensive income (Note 41(d))
Impairment charge on loans and advances
Deferred tax on day one adjustments (Note 25)

Net profit after tax

Other comprehensive income
Statutory credit reserve
Fair value through the other comprehensive income (FVOCI)
Deferred tax - FVOCI (Note 25)
Reversal of revaluation reserve
Total other comprehensive income
Total comprehensive income
Transactions with owners recorded directly in equity
Final dividend - 2017
Proposed dividend - 2018
Total transactions with owners for the year

Balance as at 31st December 2018

	Share capital Frw'000
	5,050,000
	5,050,000
	5,050,000

The notes set out on pages 64 to 134 form an integral part of these...

COMMERCIAL BANK OF AFRICA (RWANDA) PLC
FINANCIAL STATEMENTS AND DISCLOSURES FOR THE PERIOD ENDED 31 MARCH 2019

I. STATEMENT OF FINANCIAL POSITION

	Reviewed 31-Mar-19 Frw'000	Audited 31-Dec-18 Frw'000
ASSETS		
Cash in hand	629,380	1,332,526
Balance with National Bank of Rwanda	2,927,131	697,606
Deposits and balances due from other banking institutions	1,178,779	4,858,110
Other assets	993,370	1,063,096
Financial investments –at amortized cost	8,196,864	8,442,907
Loans and advances to customers	10,762,583	7,113,221
Property and equipment	1,678,517	1,702,213
Right of use assets	1,706,920	-
Intangible assets	88,146	61,837
Total assets	28,161,690	25,271,516
LIABILITIES		
Interbank borrowing	2,665,331	-
Deposits from customers	11,707,678	11,407,120.93
Deposits from banks and other financial Institutions	3,954,517	5,229,161.066
Balances due to Group companies	500,000	845,713
Other liabilities	743,049	508,548
Lease Liability	1,824,953	-
Deferred tax liability	186,911	186,911
Total liabilities	21,582,439	18,177,454
EQUITY		
Share capital	8,484,691	8,484,691
Capital contribution awaiting allotment	5,777,110	5,777,110
Retained earnings	(7,682,550)	(7,167,739)
Total Equity	6,579,251	7,094,062
Total equity and liabilities	28,161,690	25,271,516

2. STATEMENT OF COMPREHENSIVE INCOME

	Reviewed 31-Mar-19 Frw'000	Reviewed 31-Mar-18 Frw'000
REVENUE		
Interest income	616,844	226,585
Interest expenses	(258,862)	(84,468)
Net interest income	357,982	142,117
Loan Impairment losses	(34,512)	(31,502)
Net interets income after impairment	323,470	110,615
Fee and commission income	88,850	18,756
Net foreign exchange gains	32,216	28,113
Income from banking activities	444,536	157,484
Employee benefits expenses	(247,542)	(193,609)
Finance costs	(41,894)	-
Depreciation and amortization	(125,726)	(192,508)
Operating expenses	(428,988)	(1,459,549)
Loss before income tax	(399,614)	(1,688,182)
Income tax expense	-	-
Loss for the period	(399,614)	(1,688,182)
Other comprehensive income	-	-
Total comprehensive loss for the period	(399,614)	(1,688,182)

3. OTHER REGULATORY DISCLOSURES

ITEM	FRW'000
1. Off balance sheet items	
a. Financing commitments given	721,998
b. Guarantees, commitments given	4,968,070
2. Non-performing loan indicators	
a. Non-performing loans	534,033
b. NPL Ratio	4.76%
3. Capital Strength	
a. Core Capital (Tier1)	6,497,716
b. Supplementary Capital (Tier 2)	-
c. Total Capital	6,497,716
d. Total risk weighted assets	15,368,966
e. Core capital/Total risk weighted assets ratio	42.28%
f. Tier 1 ratio	42.28%
g. Total capital/total risk weighted assets ratio	42.28%
h. Tier 2 Ratio	-
4. Liquidity	
a. Liquidity ratio	197%
5. Insider lending	
a. Loans to directors, shareholders and subsidiaries	-
b. Loans to employees	631,017
6. Management and board composition	
a. Number of Board members	8
b. Number of executive directors	-
c. Number of Non-executive directors	8
d. Number of female directors	3
e. Number of male directors	5
f. Number of executive committee	10
g. Number of females in the Executive committee	2
h. Number of males in the Executive committee	8

MAJOR CHANGES IN FINANCIAL STATEMENTS

During the first quarter of 2019, the bank has adopted IFRS 16 - Leases. The adoption of this standard resulted in material impact in the income statement, Balance sheet and regulatory ratios as follows:
- On application of the new standard, a new asset *(Right of use asset)* and a liability *(Lease liability)* have been incorporated in the balance sheet
- Initial adoption led to Frw 115m increase in retained losses
- The additional asset caused an increase in risk weighted assets and subsequent reduction in total capital/risk weighted assets

OTHER CHANGES

The income statement for Q1 2018 includes initial operating expenses of Frw 1.2b. The Financial statements were approved by the board of directors on 22nd May 2019 and signed on its behalf by:

Amb. Dr. Benjamin Rugangazi
Chairman

Ms. Lina M Higiro
Chief Executive Officer

Statement of cash flows
for the year ended 31 December 2017
(UA thousands – Note B)

	2017	2016
CASH FLOWS FROM:		
OPERATING ACTIVITIES:		
Net income	176,428	25,070
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation	15,220	10,035
Provision for impairment on loan principal and charges	16,969	67,810
Unrealized (gains)/losses on investments and related derivatives	(653)	7,336
Amortization of premium or discount on treasury investments at amortized cost	10,222	(1,940)
Impairment/(reversal of provision) on equity investments	21	(156)
Amortization of borrowing issuance costs	40,813	20,294
Unrealized (gains)/losses on borrowings, related derivatives and others	(84,536)	56,308
Translation (losses)/gains	1,446	(998)
Share of profits in associate	476	302
Net movements in derivatives	203,740	10,468
Changes in accrued income on loans	(37,445)	(67,392)
Changes in accrued financial charges	69,147	39,275
Changes in other receivables and payables	(709,374)	20,287
Net cash provided by operating activities	(297,526)	186,699
INVESTING, LENDING AND DEVELOPMENT ACTIVITIES:		
Disbursements on loans	(3,678,527)	(3,221,752)
Repayments of loans	1,221,748	1,311,008
Investments maturing after 3 months of acquisition:		
Investments at amortized cost	(180,302)	(398,069)
Investments at fair value through profit and loss	(1,123,970)	(2,139,283)
Acquisition of fixed assets	(14,029)	(14,258)
Disposal of fixed assets	70	63
Disbursements on equity participations	(63,578)	(53,224)
Repayments on equity participations	27,524	12,844
Net cash used in investing, lending and development activities	(3,811,064)	(4,502,671)
FINANCING ACTIVITIES:		
New borrowings	8,068,780	7,379,755
Repayments on borrowings	(4,557,972)	(3,729,050)
Cash from capital subscriptions	251,945	299,983
Net cash provided by financing activities	3,762,753	3,950,688
Effect of exchange rate changes on cash and cash equivalents	29,745	(2,723)
Decrease in cash and cash equivalents	(316,092)	(368,007)
Cash and cash equivalents at the beginning of the year	2,035,868	2,403,875
Cash and cash equivalents at the end of the year	**1,719,776**	**2,035,868**
COMPOSED OF:		
Investments maturing within 3 months of acquisition:		
Investments at fair value through profit and loss	546,680	729,047
Cash	1,173,096	1,306,821
Cash and cash equivalents at the end of the year	**1,719,776**	**2,035,868**
SUPPLEMENTARY DISCLOSURE:		
1. Operational cash flows from interest and dividends:		
Interest paid	(205,747)	(137,516)
Interest received	403,222	521,567
Dividend received	9,276	7,343
2. Movement resulting from exchange rate fluctuations:		
Loans	(86,924)	(347,432)
Borrowings	(703,558)	573,930
Currency swaps	563,553	(71,700)

The accompanying notes to the financial statements form part of this statement.

Five Year Review

Consolidated statement of financial position

	31 Dec 15	31 Dec 16	31 Dec 17	31 Dec 18	31 Dec 19
	KShs. million	KShs. million	KShs. million	KShs. million	KShs. million
	Audited	Audited	Audited	Audited	Audited
Assets					
Government and other securities	96,948	102,470	109,737	120,070	169,243
Loans and advances to customers (net)	345,969	385,745	422,685	455,880	535,371
Property and equipment	9,028	9,373	10,454	11,007	13,132
Other assets	106,149	97,652	103,792	127,356	180,826
Total Assets	**558,094**	**595,240**	**646,668**	**714,313**	**898,572**
Liabilities					
Customer Deposits	424,391	448,174	499,549	537,460	686,583
Lines of Credit	43,268	36,105	25,934	42,552	41,856
Other Liabilities	9,181	14,395	15,220	20,640	40,392
Total Liabilities	**476,840**	**498,674**	**540,703**	**600,652**	**768,831**
Total Equity	**81,254**	**96,566**	**105,965**	**113,661**	**129,741**
TOTAL LIABILITIES AND EQUITY	**558,094**	**595,240**	**646,668**	**714,313**	**898,572**

Consolidated statement of profit and loss

	31 Dec 15	31 Dec 16	31 Dec 17	31 Dec 18	31 Dec 19
	KShs. million	KShs. million	KShs. million	KShs. million	KShs. million
	Audited	Audited	Audited	Audited	Audited
Interest Income	56,443	62,806	63,673	66,280	74,350
Interest Expense	(17,148)	(15,779)	(15,288)	(17,450)	(18,220)
Net Interest Income	**39,295**	**47,027**	**48,385**	**48,830**	**56,130**
Non-Interest Income	19,732	22,449	23,000	22,973	28,171
Operating Income	**59,027**	**69,476**	**71,385**	**71,803**	**84,301**
Operating Expenses	(30,310)	(33,104)	(34,996)	(34,698)	(38,679)
Impairment on Loans and Advances	(2,179)	(3,823)	(5,914)	(2,944)	(8,889)
Total Expenses	(32,489)	(36,927)	(40,910)	(37,642)	(47,568)
Profit Before Tax and Loss on Monetary Position	**26,538**	**32,549**	**30,475**	**34,161**	**36,733**
Loss on Monetary Position	-	(3,458)	(1,361)	(302)	164
Profit Before Tax and Loss on Monetary Position	**26,538**	**29,091**	**29,114**	**33,859**	**36,897**
Income Tax Expense	(6,915)	(9,368)	(9,410)	(9,864)	(11,732)
Profit for the Year	**19,623**	**19,723**	**19,704**	**23,995**	**25,165**

CONSOLIDATED INCOME STATEMENT

(All amounts in thousands US dollar unless otherwise stated)

For the year ended 31 December	Notes	2018	2017
Interest income	7	1,528,410	1,570,320
Interest expense	7	(598,650)	(593,001)
Net interest income		**929,760**	**977,319**
Fee and commission income	8	507,434	469,520
Fee and commission expense	8	(62,993)	(69,140)
Net trading income	9	381,885	415,725
Net losses from investment securities	10	(14)	(5)
Other operating income	11	69,099	37,783
Non-interest revenue		**895,411**	**853,883**
Operating income		**1,825,171**	**1,831,202**
Staff expenses	12	(512,455)	(515,040)
Depreciation and amortization	12	(97,444)	(95,820)
Other operating expenses	12	(512,868)	(520,691)
Operating expenses		**(1,122,767)**	**(1,131,551)**
Operating profit before impairment losses and taxation		**702,404**	**699,651**
Impairment losses on :			
• loans and advances	13	(240,001)	(326,248)
• other financial assets	14	(23,914)	(84,806)
Impairment losses on financial assets		**(263,915)**	**(411,054)**
Operating profit after impairment losses		**438,489**	**288,597**
Share of loss of associates	26	(2,512)	(257)
Profit before tax		**435,977**	**288,340**
Taxation	15	(108,129)	(60,757)

Profit for the year from continuing operations		**327,848**	**227,583**
Profit for the year from discontinued operations	30	801	951
Profit for the year		**328,649**	**228,534**
Profit for the year attributable to:			
Owners of the parent		**261,647**	**178,585**
• Continuing operations		261,214	178,071
• Discontinued operations		433	514
Non-controlling interests		**67,002**	**49,949**
• Continuing operations		66,634	49,512
• Discontinued operations		368	437
		328,649	**228,534**
Earnings per share from continuing operations attributable to owners of the parent during the year (expressed in United States cents per share)			
• Basic	16	1.06	0.72
• Diluted	16	1.06	0.72
Earnings per share from discontinued operations attributable to owners of the parent during the year (expressed in United States cents per share)			
• Basic	16	0.00	0.00
• Diluted	16	0.00	0.00

The accompanying notes are an integral part of these financial statements.

Banque Populaire du Rwanda Limited
Financial Statements
For the year ended 31 December 2016

Statement of comprehensive income

	Notes	2016 Frw'000	2015 Frw'000
Interest income	1	28,930,844	20,430,819
Interest expense	2	(5,657,106)	(3,340,308)
Net interest income		**23,273,738**	**17,090,511**
Fee and commission income	3 (a)	5,872,634	4,486,086
Fee and commission expense	3 (b)	(1,149,389)	(1,240,715)
Net fee and commission income		**4,723,245**	**3,245,371**
Net trading income	4	922,198	96,403
Other operating income	5	650,871	517,894
Total operating income		**29,570,052**	**20,950,179**
Other income	6	-	392,028
Operating expenses	7	(11,407,603)	(9,806,115)
Personnel expenses	8	(13,060,923)	(9,913,664)
Impairment charge on loans and advances	14	(2,898,666)	(806,257)
Depreciation and amortisation	16,17	(2,215,128)	(1,842,717)

Other income	6	-	392,028
Operating expenses	7	(11,407,603)	(9,806,115)
Personnel expenses	8	(13,060,923)	(9,913,664)
Impairment charge on loans and advances	14	(2,898,666)	(806,257)
Depreciation and amortisation	16,17	(2,215,128)	(1,842,717)
Loss before income tax		(12,268)	(1,026,546)
Income tax expense	9	(651,512)	(992,689)
Loss for the year		(663,780)	(2,019,235)
Other comprehensive income (net of tax):			
Items that will not be reclassified to profit or loss			
Deferred income tax credit on revaluation of buildings		-	44,442
Total comprehensive (loss) for the year		(663,780)	(1,974,793)

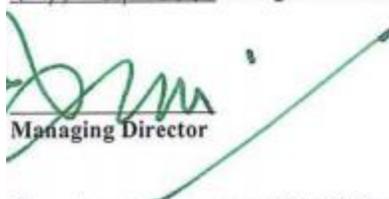The notes set out on pages 12 to 51 form an integral part of these financial statements.

Statement of financial position

	Notes	2016 Frw'000	2015 Frw'000
ASSETS			
Cash and balances with the National Bank of Rwanda	10	31,382,217	17,024,261
Amounts due from banks	11	7,184,240	1,966,709
Government securities and other bonds	12	21,604,851	19,351,840
Loans and advances	13	168,234,274	117,685,693
Current income tax recoverable	24 (b)	669,908	1,237,516
Other assets	15	10,017,065	997,340
Intercompany receivables	28 (c)	478,046	-
Intangible assets	16	2,214,286	2,536,937
Property and equipment	17	9,817,915	10,765,724
TOTAL ASSETS		**251,602,802**	**171,566,020**
LIABILITIES			
Deposit from customers	18	165,716,251	135,235,532
Deposit from banks	19	22,879,345	10,767,125
Provisions for litigations	20	113,483	481,902
Credit funds	21	1,530,107	1,688,991
Borrowings	22	5,614,622	1,874,713
Other payables	23	12,632,327	7,599,396
Deferred tax liability	24 (a)	262,891	55,476
Intercompany payables	28(d)	1,321,664	-

		210,070,690	157,703,135
TOTAL LIABILITIES			
EQUITY			
Share capital	25	43,027,580	16,491,238
Share premium	25	1,796,665	-
Revaluation reserves	26	1,508,197	1,508,197
Credit risk reserve	27	1,042,057	-
Accumulated losses		(5,842,387)	(4,136,550)
TOTAL EQUITY		41,532,112	13,862,885
TOTAL EQUITY AND LIABILITIES		251,602,802	171,566,020

The financial statements on pages 8 to 51 were approved for issue by the Board of Directors on

29/03/2017 and signed on its behalf by:

Managing Director

Acting Chairperson - Board of Directors

The notes set out on pages 12 to 51 form an integral part of these financial statements.

STATEMENT OF COMPREHENSIVE INCOME

		For the year ended 31 December:	
	Notes	2016 Frw'000	2015 Frw'000
Interest income	1	19,714,267	17,231,213
Interest expense	2	(8,768,533)	(8,559,733)
Net interest income		**10,945,735**	**8,671,480**
Fee and commission income	3(a)	3,033,494	2,610,979
Fee and commission expense	3(b)	(472,549)	(236,617)
Net fee and commission income		**2,560,945**	**2,374,362**
Net foreign exchange income		1,084,143	1,355,626
Other operating income	4	58,471	109,538
		1,142,614	1,465,164
Total operating income		14,649,294	12,511,006
Net impairment charge on loans and advances		(611,935)	(911,869)

		14,037,359	11,599,137
Net Operating Income			
Personnel expenses		(4,090,878)	(3,928,651)
Depreciation and Amortisation		(719,388)	(759,738)
Other operating expenses		(3,837,215)	(3,096,295)
Total operating expenses	6	(8,647,481)	(7,784,684)
Profit before income tax		5,389,878	3,814,453
Income tax expense	8	(1,761,155)	(1,232,536)
Profit for the year		3,628,723	2,581,918
Other comprehensive income		-	-
Total comprehensive income for the year		3,628,723	2,581,918
Basic and diluted earnings par share		51,950	36,964

The notes on pages 36 to 71 are an integral part of these financial statements.

CONSOLIDATED STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME

		Group		Company	
In millions of Kenya Shillings	Note	2015	2014	2015	2014
Interest income	8	43,171	35,367	-	31,140
Interest expense	8	(9,249)	(6,192)	-	(4,980)
Net interest income		33,922	29,175	-	26,160
Net fee and commission income	9(a)	3,969	3,297	-	2,638
Net trading income	9(b)	3,116	2,391	-	1,251
Other operating income	10	15,048	12,786	8,519	11,118
Operating income before impairment losses		56,055	47,649	8,519	41,167

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Other operating income	10	15,048	12,786	8,519	11,118
Operating income before impairment losses		**56,055**	**47,649**	**8,519**	**41,167**
Net impairment loss on financial assets	11	(2,433)	(1,590)	-	(1,159)
Operating income after Impairment losses		**53,622**	**46,059**	**-**	**40,008**
Personnel expenses	12	(10,206)	(10,814)	-	(8,791)
Operating lease expenses	13	(1,639)	(1,592)	-	(1,088)
Depreciation and amortisation	14, 15	(4,128)	(3,185)	-	(2,568)
Other operating expenses	16	(13,691)	(9,168)	(697)	(7,449)
Total operating expenses		**(29,664)**	**(24,759)**	**(697)**	**(19,896)**
Profit before tax and equity accounted income		**23,958**	**21,300**	**7,822**	**20,112**
Share of profit from associate	17(a)	-	242	-	-
Gain on disposal of associate	17(a)	-	822	-	1,667
Profit before income tax		**23,958**	**22,364**	**7,822**	**21,779**
Income tax expense		(6,631)	(5,213)	(61)	(4,943)
Profit for the year		**17,327**	**17,151**	**7,761**	**16,836**

CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

In thousands of Naira	Group Dec 2016	Group Dec 2015	y/y Δ	Bank Dec 2016	Bank Dec 2015	y/y Δ
Gross Earnings	381,320,783	337,404,230		331,000,972	302,061,975	10%
			13%			
Net Interest Income	139,147,760	105,381,650		116,017,406	90,045,956	29%
Interest income	247,286,635	207,802,768	32%	210,794,456	184,047,834	15%
Interest expense	(108,138,875)	(102,421,118)	19%	(94,777,050)	(94,001,878)	1%
			6%			
Non-Interest Income	133,457,450	129,450,344		120,206,516	118,014,141	2%
Fee and commission income	55,440,500	33,463,887	3%	45,992,484	25,892,284	78%
Fee and commission expense	(576,697)	(151,118)	66%	-	-	
Net fee and commission income	54,863,803	33,312,769	282%	45,992,484	25,892,284	78%
Net gains on investment securities	55,051,078	62,738,014	65%	54,968,917	62,699,600	-12%
Net foreign exchange income / (loss)	3,597,591	26,501,682	-12%	(94,434)	23,205,265	-100%
Other operating income	19,944,978	6,897,879	-86%	19,339,549	6,216,992	211%
			189%			
Operating Income	272,605,211	234,831,994		236,223,922	208,060,097	14%
Net impairment charge	(21,952,819)	(14,224,715)	16%	(17,641,128)	(13,287,613)	33%
Income after Impairment Charges	250,652,391	220,607,279	54%	218,582,794	194,772,484	12%
			14%			
Operating Expenses	(160,312,935)	(145,569,162)		(138,003,219)	(129,594,571)	6%
Personnel expenses	(51,795,538)	(42,346,952)	10%	(42,153,587)	(35,699,471)	18%
Prepaid rent expenses	(2,810,090)	(1,739,857)	22%	(1,632,376)	(1,405,716)	16%
Depreciation	(9,106,886)	(8,615,137)	62%	(7,774,591)	(7,762,291)	0.2%
Amortization	(2,186,905)	(1,483,193)	6%	(1,854,437)	(1,324,075)	40%
Other operating expenses	(94,413,516)	(91,384,023)	47%	(84,588,226)	(83,403,018)	1%
			3%			
Profit before Tax	90,339,456	75,038,117		80,579,577	65,177,914	24%
Income tax	(18,900,109)	(9,169,344)	20%	(16,553,441)	(6,253,169)	165%
Profit for the Period	71,439,347	65,868,773	106%	64,026,136	58,924,745	9%
Profit attributable to:			8%			
Owners of the bank	71,117,024	65,332,540		64,026,136	58,924,745	9%
Non-controlling interest	322,322	536,233	9%	-	-	
Profit for the Period	71,439,347	65,868,773	-40%	64,026,136	58,924,745	9%
			8%			