

IMPACT OF ECONOMIC VARIABLES ON THE FINANCIAL PERFORMANCE OF  
NIGERIAN DEPOSIT MONEY BANKS

BY

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MATRIC NO: 17020101004

A LONG ESSAY SUBMITTED TO THE DEPARTMENT OF ACCOUNTING AND  
FINANCE, COLLEGE OF HUMNITIES MANAGEMENT AND SOCIAL SCIENCES,  
MOUNTAIN TOP UNIVERSITY, IN PARTIAL FULFILMENT FOR THE REQUIREMENTS  
FOR THE DEGREE OF BACHELOR OF SCIENCE (B.Sc. HONS) IN ACCOUNTING.

AUGUST, 2021

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## DECLARATION

I hereby declare that this project report written under the supervision of Mr. Enitan Olurin. Also, a product of my research work. Information and data obtained from various sources have been rightly acknowledged in the text and list of references provided. This research project report has not been previously presented anywhere for the award of any degree or certificate.

Olofinniyi, christiana O.

Date.

## **CERTIFICATION**

I certify that this work was carried out by OLOFINNIYI, CHRISTIANA OLUWASEUN at the Department of Accounting and Finance, Mountain Top University, Ogun State, Nigeria under my supervision.

Mr. Enitan Olurin

.....

Project Supervisor

Signature & Date

Dr. J. Omokehinde

.....

Head of Department

Signature & Date

## **DEDICATION**

I dedicate this project to God almighty and my parent, Mr. and Mrs. Olofinniyi and also my guardian, Mr. Joseph Olofinluyi for their relentless support.

## **ACKNOWLEDGEMENT**

I give all the glory to God for he has been Good and for his unending love towards me. I am sincerely grateful for the successful completion of the project.

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## **List of Abbreviations**

ROA - Return on Assets

GDP - Gross Domestic Product

ROE - Return on Equity

LDR - Loan to Deposit Ratio

CBN - Central Bank of Nigeria

ARDL - Auto-regressive Distributed Lag

FMOLS - Fully Modified Ordinary Least Square

DOLS - Dynamic Ordinary Least Square

## ABSTRACT

The principal aim of every banking institution is to make a profit in order to maintain stability and sustainable growth. The purpose of this study was to investigate the impact of economic variables on the financial performance of Nigerian Deposit Money Banks. Internal and external factors affect the performance of deposit money banks. The internal factor is the Bank specific factor, while the external factors include the macroeconomic factors and the industry-specific factor. The research population consists of 22 Deposit Money Banks in Nigeria according to the list of deposit banks published by the Central Bank of Nigeria. A sample of five Deposit Money Banks was drawn using stratified random sampling based on the criteria of banks with international Authorization. The study adopted the ex post facto research design. The study made use of secondary data extracted from the semi-annual audited report of the five banks respectively and Central Bank Statistical Bulletins from the period of 2010-2019. The study used regression and correlation analysis to test the relationship between Inflation rates, Treasury Bills rates, loan to deposit ratio and financial performance of Deposit Money Banks, Return on Assets (ROA) is used to represent the performance of Deposit Money Banks. The findings showed that the inflation rate and treasury bills rate had no statistically significant impact on the return of assets which signifies the performance of the banks but the loan to deposit ratio had a mild significant impact on the return of assets which signifies the performance of the banks. However, there exists a positive relationship between inflation rate and financial performance but a negative relationship between treasury bills rate and financial performance and loan to deposit ratio and financial performance. The study recommended that the banks should maintain a moderate loan to deposit ratio by regulating the way they give out loans. And the regulators should increase their inspection on the affairs of banks so that they will conform to various circulars and policy statement that affects the banking industry.

Keywords: *Deposit Money Banks, Inflation rates, Treasury Bills rates, loan to deposit ratio*

## CHAPTER ONE

### INTRODUCTION

#### 1.1 Background to the Study

In a developing country like Nigeria where the financial market is not active, only the banking industry takes the responsibility of financial intermediation. Because financial markets are often underdeveloped and immature in developing nations, banks have a greater impact. (Arun & Turner, 2004). The prevailing financial institution in a developing country like Nigeria is deposit money banks. The overall function of the economy of a developing country like Nigeria relies on the efficiency and effectiveness of its deposit money bank and if not, the whole economy will become illiquid and savings and investment will degenerate (Elshaday, Kenenisa & Mohammed, 2018). The strength of a financial establishment is significant in stimulating economic development and growth, foreign and domestic investment property reduction, and employment creation (Kyalo, 2002).

Deposit money banks play a significant part in the activities of the economy since they are financial intermediaries responsible for steering the funds from savers to borrowers for investment purposes which is an important thing for a country's economic growth (Baba & Nasieku, 2016). Deposit money banks in Nigeria has undergone an explicable change over the year both in the ownership structure, number of institutions as well as the depth and operations established to position it as Africa's financial hub (Osamwonyi & Micheal, 2014).

Banks are said to rely greatly on the funds provided by the public as deposits to finance loans being offered to the customers. Most people believe that bank deposits are their least expensive funding option. As a result, if the demand for bank loans is high, deposits have a beneficial effect

on bank profitability. Banks' ability to lend and make profits increases as more deposits are accumulated. (Buyinza, 2010).

The principal aim of every banking institution is to make a profit to maintain stability and sustainable growth (Kamande, Zablon & Ariemba, 2016). The earnings and profitability of a bank are the most important indicators of its financial performance. Profit is defined as the difference between total revenue and total expense. Hence, the factors that affect the performance of deposit money banks would be those that affect the revenue and cost of the bank (Pradhan & Shrestha, 2016) Analyzing the banking sector's performance and the trade cycle is essential for assessing the banking sector's soundness and stability. (Albertazzi & Gambacorta, 2009). The strength of an economy's financial system can be assessed by evaluating the performance of the banking industry. (Aspal, Dhawan & Nazneen, 2019)

There have been debates among scholars concerning the proper policy measure to adopt in ensuring the banking sector's performance in the face of macroeconomic shocks. While some scholars have highlighted the need for proper corporate governance by the managers of the banks, others have pointed at industry-wide issues around proper regulation by the apex bodies (Chidozie & Ayadi 2017).

Internal and external factors affect the performance of deposit money banks (Ongore & Kusa, 2013). The internal factor is the Bank specific factor. Bank-specific factors are individual bank features that affect the performance of banks, these factors are controlled by the decisions of the management and board (Ongore & Kusa, 2013). These factors include asset quality, capital adequacy ratio, earnings ability, management efficiency, and liquidity ratio (loan to deposit ratio). While the external factors include the macroeconomic factors and the industry-specific factor

Macroeconomic factors are country-wide elements that affect bank performance and are outside the control of the bank. The gross domestic product (GDP), inflation rates, exchange rates, money supply, unemployment, interest rates, and other factors are among them. Industry-specific factors have a broad impact on the profitability of businesses in the industry, and they are frequently beyond the banks' control (Ongore & Kusa, 2013). These industry-specific factors include Treasury bill investment rate, call money rate, and leverage.

Sustainable economic growth and development is the ultimate goal of any country (Gazena, 2001). To attain this goal the agriculture and manufacturing sector of the country must grow proportionally. Deposit money banks are among the many stakeholders who play important roles in manufacturing and agriculture, as they provide funds for investors. But to efficiently perform this intermediary function banks must be profitable after covering their operating expenses. The soundness of the country's economic environment is critical to the financial sector's effective and efficient operation. (Osoro, Gor & Mbiti, 2016). During this new age, financial institutions need to be powerfully integrated with the worldwide economy. Increased integration and the increasing economic fluctuations need extra attention to be paid to determine the effect of macroeconomic variables and the company's improvement (Simiyu & Ngile, 2015). The bank-specific factors majorly have a significant influence on the cost of operations as well as the revenue of the banks (Abiodun & Mlanga, 2019).

Over time adequate banking performance has been a major issue to stakeholders, management analysts, policymakers, and the general public (Akanni, Nwanna & Mbachu, 2016). The financial sector, especially banks are exposed to different risk and uncertainties (Sundararajan, Enoch, et al, 2002), the economic downturn of 2008 which resulted in bank failures, were

initiated in the U.S and then wildly dissipated across the world. Therefore, it is needed that banks should be frequently examined for their financial performance (Aspal, Dhawan & Nazneen, 2019).

## **1.2 Statement of the Research Problem**

A bank must identify variables affecting its profitability to take steps to increase profitability by managing the prominent determinants to thrive in the long run. Understanding bank-specific characteristics and how they affect bank profitability is critical for deposit money institutions, stakeholders, and other interested parties such as the central bank and the government (Kamande, Zablon & Ariemba, 2016).

Poor macroeconomic performance has the potential to jeopardize the mobilization of banking deposits and credit allocation in the economy, adversely affecting bank profitability. (Alaba, 2002), the banking sector crises of the 1980s and 1990s, for example, were blamed on weak macroeconomic performance. (Uboh, 2005). Some of the banking sector's poor performance can be attributed to banks' inability to respond to macroeconomic variable shocks (Toby, 2009).

The Nigerian banking business has been severely disrupted by macroeconomic, industry-specific, and bank-specific factors. These factors are also determinants of the profitability of banks. Any slight changes lead to either negative or positive changes in the profitability of banks. Many researchers have been investigating the impact of these variables on the performance of banks. For instance (Baba & Nasieku, 2016) analyzed the impact of Macroeconomic factors on Commercial Banks' Financial Performance in Nigeria by taking exchange rate, real interest rate, and the unemployment rate as an explanatory variable, (Illo, 2012) studied analyzed the impact of Macroeconomic factors on commercial banks' Financial Performance in Kenya by taking the

gross domestic product, money supply, inflation and lending interest rate as explanatory variables. And (Bhattarai, 2018) explained the impact of bank-specific and macro-economic variables on the performance of Nepalese commercial banks by taking bank-specific variables (default risk, cost per loan assets, capital adequacy ratio) and macro-economic variables (annual growth of gross domestic product, exchange rate, and inflation) as the explanatory variables. All these studies were conceptualized from the viewpoint of developing countries with a major concentration on macro-economic factors and bank-specific factors.

However, there is little empirical research on the impact of external (macroeconomic and industry-specific) and internal determinants on deposit money bank financial performance in Nigeria. Many studies that have been carried out either make emphasis only on the macroeconomic variable, or the bank-specific variable and macro-economic variables. This study, however, takes cognizance of the impact of the macro-economic, industry-specific, and bank-specific factors on the deposit money banks' performance in Nigeria.

### **1.3 Objective of the Study**

The main objective of this study is to investigate the impact of economic variables on the financial performance of Nigerian deposit money banks. However, the specific objectives are:

1. To evaluate the impact of macro-economic factors (inflation rate) on the financial performance of Nigerian deposit money banks.
2. To investigate the impact of industry-specific factors (Treasury bill rate) on the financial performance of Nigerian deposit money banks.

3. To ascertain the impact of bank-specific factors (loan to deposit ratio) on the financial performance of Nigerian deposit money banks.

#### **1.4 Research Questions**

1. What is the impact of macroeconomic factors (inflation rate) on the financial performance of Nigerian deposit money banks?
2. What is the impact of industry-specific factors (Treasury bill rate) on the financial performance of Nigerian deposit money banks?
3. What is the impact of bank-specific factors (loan to deposit ratio) on the financial performance of Nigerian deposit money banks?

#### **1.5 Research Hypotheses**

**H01:** There is no significant relationship between the inflation rate and the financial performance of Nigerian deposit money banks.

**H02:** There is no significant relationship between the Treasury bill rate and the financial performance of Nigerian deposit money banks.

**H03:** There is no significant relationship between the loan to deposit ratio and the financial performance of Nigerian deposit money banks.

#### **1.6 Significance of the Study**

One of the major reasons for bank failure in Nigeria is a shortfall of capital and the bank retained earnings is one of the major sources of capital. It is therefore imperative that a study be undertaken to ascertain the impact of the economic variables (macroeconomic, industry-specific,

bank-specific) on the performance of banks. This study will be of benefit to different stakeholders including managers of deposit money banks, policymakers in the banking industry, government, and other researchers. It will help managers of deposit money banks to understand the economic conditions that will affect their financial performance, it will also help them know which of the economic variables that are macro-economic factor, industry factor, or bank-specific factor has a major influence on their financial performance.

It will be of importance to government in its regulatory role by making policies decision whose goal is to promote a level of economic activity that will ensure a stable banking sector.

It will help the policymakers of the banking industry to formulate policies that will result in easier and better regulation of the banking sector.

This study will add to the body of existing knowledge about the effect of economic variables on the banks' financial performance.

### **1.7 Scope of the Study**

The study focused on the impact of economic variables on the performance of deposit money banks in Nigeria. The study was limited to five banks in Nigeria chosen at random as well as the time constraint in conducting this research. Further research on this study can include a wider range of samples involving other areas of financial institutions namely mortgage companies, microfinance institutions, etc.

### **1.8 Limitation of the Study**

The study focused on impact of economic variables on performance of deposit money banks in Nigeria. The study was limited to five banks in Nigeria chosen at random as well as the time

constraint in conducting this research. Further research on this study can include a wider range of samples involving other areas of financial institution namely mortgage companies, micro finance institutions etc.

### **1.9 Operational Definitions of Terms**

**Deposit money bank:** It is a type of financial institution that accepts public deposits and provides loans for consumption and investment.

**Inflation rate:** is the percentage change in prices over a given period, usually a month or a year. The percentage indicates how quickly prices grew over time.

**Loan to deposit ratio:** It is used to determine the liquidity of a bank by considering the overall amount of loans compared to the total amount of deposits.

**Treasury bill rate:** it is the disparity between the face value of the Treasury bill and the amount paid by the investor.

## CHAPTER TWO

### LITERATURE REVIEW

#### **Preamble**

This chapter contains a review of literature as presented by various authors and scholars based on the objectives of the study. The literature review explains theoretically the rationale behind the problem being studied as well as what research has already been conducted and how the findings relate to the current problem statement. This chapter will examine the conceptual review, theoretical review, and empirical review on the topic.

#### **2.1 Conceptual Review**

The concept of banks' financial performance and economic variables (determinants of financial performance) are discussed in this sub-section.

##### **2.1.1 Banks financial performance**

Profitability is the yardstick by which any deposit money bank's financial performance is measured. Profitability has always been considered as the top priority of banking operations. Increasing profitability boosts a bank's capital position and increases future gains through the investing of retained earnings, which is the bank's initial defense mechanism against unforeseen losses. (John, 2018).

Financial performance indicates the percentage or extent of attainment of economic goals and objectives by the firm.

### **2.1.1.1 Traditional measures of banks financial performance**

Traditional performance measurements are similar to those used in other businesses, with the most common being return on equity (ROE), return on assets (ROA), and net interest margin. Furthermore, because of the importance of the intermediation function for banks, the net interest margin is usually examined. (European central bank, 2010).

#### **1. Return on Asset (ROA)**

It's a common metric for evaluating a bank's performance. It's a financial ratio that shows how profitable a company is concerning its total assets. It is a widely used indicator of a bank's performance. It's a financial ratio that displays how much profit a firm makes in comparison to its total assets. Return on asset (ROA) is a crucial profitability measurement that measures a company's profit per naira of assets. It's computed by dividing a bank's net income during the same period by its total or average assets. An increasing ROA trend is generally beneficial, as long as it is not the product of excessive risk-taking (Ghebregiorgis & Atewebrhan, 2016).

#### **2. Return on Equity (ROE)**

ROE is another metric of profitability that is frequently used in conjunction with ROA. It is an internal metric of shareholder value performance. It proposes a direct assessment of a shareholder's financial return on investment and enables comparisons between companies. (European central bank, 2010). Divide net profit after tax by average shareholders' equity to get a bank's return on equity. The best indicator of shareholder wealth is the return on equity (ROE) (Ghebregiorgis & Atewebrhan, 2016).

### **3. Cost-to-income ratio**

It demonstrates the institution's ability to make money from a certain revenue stream. The operational expenses do not include the costs of impairment. It's computed by dividing operational costs by revenue. (European central bank, 2010).

### **4. Net Interest Margin**

It is a measure of a bank's intermediation function's ability to generate income (European central bank, 2010). An increase in net interest margin shows effective management of assets and liabilities, while a decreasing net interest margin is a sign of a compressed profit. It is estimated by dividing tax-equivalent net interest in income by average earning assets (Ghebregiorgis & Atewebrhan, 2016).

The measure adopted in this study is the Return on Asset (ROA).

## **2.1.2 DETERMINANTS OF BANK'S FINANCIAL PERFORMANCE**

Internal and external factors influence the performance of deposit money banks (Ongore & Kusa, 2013). The internal factors are those exclusive to the bank, while the external ones are those specific to the industry and macroeconomic factors (Ongore & Kusa, 2013).

### **2.1.2.1 Macroeconomic factors**

Macroeconomic factors are elements that affect the entire country and are typically outside the control of the organization's management. Even though numerous macroeconomic factors influence deposit money bank financial performance, this study focused on only one (inflation rate) out of the six basic macroeconomic factors (GDP, inflation rate, exchange rate, money supply, interest rate, and unemployment rate).

### **a. Inflation rate**

Inflation refers to the rate at which prices in a given economy rise over time. Inflation is a broad term that refers to a country's overall rise in living standards. Inflation is a measurement of how much a specific set of goods and services has become more expensive over time, generally a year. (Oner, 2010). The value of numerous commodities and services, as well as their share of the household budget, affect the cost of living. Several factors are responsible for inflation. It can be caused by too much money supply into the market by the government through the purchase of bonds or by commercial banks when issuing a loan to the public.

The extreme growth of money supply in the economy in comparison to the economic growth will cause a high inflation rate. When there is high inflation, businesses and consumers will be afraid of their purchasing power eroding in the nearest future. A low rate of inflation is promising since it allows businesses and consumers to make long-term plans as they know the purchasing power of their money will not be increasingly eroded (Moyo & Tursoy, 2020).

### **Measuring inflation**

The inflation rate is denoted as the percentage increase in prices of any given data as compared to the same data of the previous year. (Onwumere & Suleiman, 2010) suggested three main types of price indices which are mostly used to measure inflationary effects in an economy. This includes Consumer Price Index (CPI), GDP deflator, and Whole Price Index (WPI).

The inflation rate is a measure that tracks changes in the average price level around a price index over time. Inflation is measured in several ways, the most common of which are the GDP deflator and the CPI indicator. The GDP deflator is a comprehensive indicator of inflation in the economy , whereas the CPI tracks price changes in a broad basket of consumer goods. The

Consumer Price Index (CPI) is a metric that measures the average retail price paid by customers. When the CPI is high, inflation is present. While inflation is not negative, it does imply the prospect of bad macroeconomic health because higher prices diminish overall consumer expenditure, which leads to a fall in GDP. Economists classified inflation into two. This includes:

- i. **Demand-pull inflation:** It occurs when an economy's aggregate demand for goods and services surpasses its ability to supply those goods and services.
- ii. **Cost-push inflation:** Increased raw material costs can cause this to happen, as can the price of finished products. This type of inflation is primarily caused by increases in the price of labor or raw materials.

### **2.1.2.2 Industry-specific factor**

Industry-specific factors are elements that affect the profitability of businesses in a particular industry and are frequently beyond the bank's control. (Ongore & Kusa, 2013). They are also factors that are significant to a particular industry and have no effect on other industries.

#### **a. Treasury bill rate**

Treasury bills are government-owned and guaranteed debt instruments issued by a country's monetary authority or central bank to control the supply of money. Treasury bill rates are the rate paid by the government to the creditor who buys government bills. Since treasury bills are an instrument of sale, they are priced at price cut face value and mature at face value. The interest rate depends on the purchase size, the face value, and the period left until maturity. Treasury bills are usually held until the maturity date. Some investors, on the other hand, may seek to cash out before maturity to obtain short-term interest returns by reselling the investment on the secondary

market. Treasury notes can be issued with maturities as short as a few days to 52 weeks, but the most typical maturities are 4,8,13,26, and 52 weeks. The longer the maturity date, the higher the interest rate paid to the investor by the Treasury bill. The investor receives the face value of the bill they purchased when it matures. If the purchase price exceeds the face value. The difference is the interest earned on the investment. Treasury bills do not pay interest regularly like coupon bonds, but they do include interest in the amount they payout when they mature.

### **2.1.2.3      Bank-specific factor**

Researchers have used the CAMEL model as a substitute to the bank-specific factors which influence the banks' performance (Dang, 2011). CAMEL was created by the US Federal Deposit Insurance Corporation and approved by the Basel Committee on Banking Supervision. It is characterized by capital adequacy, liquidity, earning performance, managerial efficiency, and asset quality. This study focuses on liquidity.

#### **a.      Liquidity (Loan to deposit ratio)**

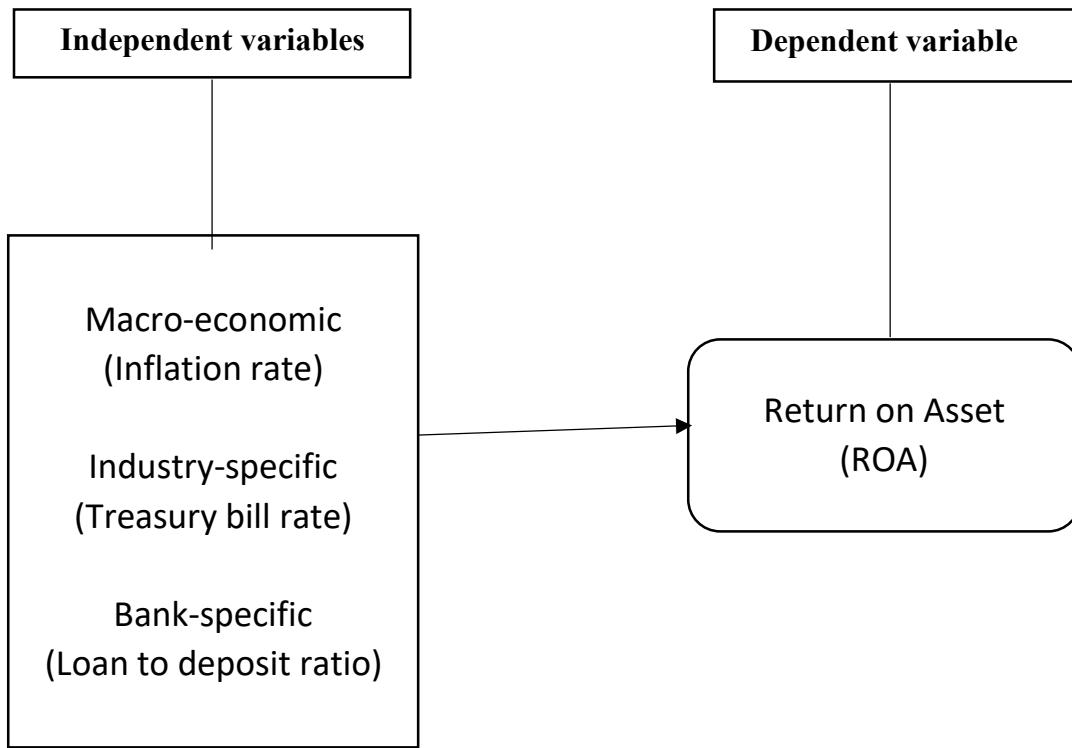
This ratio can be used to evaluate a bank's liquidity by looking at its total loans and total deposits over a given period. As a percentage, the loan-to-deposit ratio can be calculated. This ratio should be between 80 and 90%. To consumers, one Nigerian naira was loaned for every Naira in deposits in the bank. Banks are judged by how well they can cover loan losses and consumer withdrawals based on their loan to deposit ratio. An investor will keep an eye on the LDR of a bank in the case of a downturn in the economy that results in defaults.

To determine how well a bank recruits and keeps customers, LDR can be used. A bank's deposit growth means more money and more clients. The bank will have less money to lend if deposit growth or contraction does not occur. It's feasible that a bank will borrow money to meet its

lending demand to increase its interest income. True, a bank that uses debt instead of deposits to fuel its lending activities would have to pay interest on the loan, which would result in debt servicing costs. As a result of this, the bank will have lower profit margins and a larger debt level. Because depositors earn lower interest rates than those charged for borrowing money, a bank would rather use deposits than borrow money to lend.

According to Aspal, Dhawan & Nazneen (2019), the banks' ability to fulfill its financial obligation and to maintain an adequate level of liquid assets is evaluated through its liquidity position. Liquidity is calculated using the loan-to-deposit ratio. The most common way to calculate a bank's liquidity is to divide its total loan by its total deposits. If the ratio is abnormally high, it indicates that the bank may not have enough liquidity to cover any unexpected funding needs. The bank may not be making as much money as it may be if the ratio is really low. The loan-to-deposit ratio is a liquidity metric that can be used to determine a company's short-term financial health.

**Figure 2.1: Conceptual framework for the relationship between economic variables and Bank's performance in Nigeria.**



*Source: author's self-conceptualization*

## 2.2 Theoretical Review

### 2.2.1 Efficiency structure theory

The efficiency structure hypothesis theory was proposed by Demsetz (1973). The theory proposed that enhanced managerial scale efficiency leads to higher concentration and higher profitability. It denotes the desirable financial performance of firms especially the deposit money banks. He also stipulated that a bank that operates more efficiently than its competitors gain more profits resulting from a low cost of operation. A substantial percentage of the market is held by the same bank. As a result of variations inefficiency, the market has an unbalanced distribution of positions and a high level of concentration.

Athanasoglou, Delis, and Staikouras (2006) state that there are two approaches within the efficiency structure theory which are the X-efficiency and scale efficiency theory. According to the X-efficiency approach, the more the efficiency of the firms, the more profitable they are because of their lower cost of operation. These firms tend to gain larger market share, which may appear distinctly in a higher level of market concentration, but without any causal relationship from concentration to profitability. The scaling approach, on the other hand, focuses on economies of scale rather than disparities in manufacturing technology or management. Larger firms can obtain higher profit and lower unit costs through economies of scale. This allows large firms to acquire market shares, which may manifest in higher concentration and better performance.

According to Chidozie and Ayadi (2017), the efficient structure hypothesis postulation is that market concentration may rise when efficient firms generate higher profit as a result of increased size and market share. They further explained that the efficient structure theory implies that

market concentration is not a random occurrence but occurs as a result of the high efficiency possessed by some firms.

Jeon and Miller (2005) stated that the efficient structure includes two hypotheses- the X-efficiency and scale efficiency. The X-efficiency hypothesis argues that banks with better management and practices control cost raises profits, moves the bank closer to the best practice, lower bound cost curve. The scale-efficiency hypothesis argues that some banks achieve a better scale of operation and thus, lower costs. Higher profits and faster growth are the results of scale-efficient banks' lower costs.

This theory applies to this study because the efficiency of banks depends on how well the management of the bank can analyze and find solutions to the factors affecting the financial performance of banks. A bank becomes efficient if it can properly manage the changes caused by the factors and which will lead to higher performance of banks.

### **2.2.2 Efficient market hypothesis**

The hypothesis was formulated by Fama (1970). The theory is based on the idea that security prices frequently reflect all the information in the market (Fama, 1970).

Malkiel (2003) claimed that the securities market was extremely efficient at reflecting information about individual stocks as well as the overall stock market. As a result, it was assumed that when new information became available, it spread quickly and was promptly absorbed into the price of securities.

Fama (1970) differentiated three systems of EMH: the weak one, the semi-strong one, and the strong one. Most empirical research has been formed by the semi-strong form of EMH. The

EMH supposed participant in the economy have everything essential with regards to facts relating to all fluctuations in macroeconomic variables that affects the financial performance of banks

Also, the expectation of the efficient market hypothesis is usually nullified by the existence of market inconsistencies (Pandey, 2009).

Mueni, (2016) stated that there are various market participants, among them is deposit money bank, they have different strengths and weaknesses. Thus, they might react differently to the same information, as their situation might dictate. Both changes that are anticipated and actual in macroeconomics variables usually form part of the information that rolls slowly into the economy and markets. Deposit money banks should rapidly adopt this macroeconomic information into their business activities by adjusting their pricing levels or developing new strategies

The theory is founded on the assumption that there are many participants in a market with similar expectations and reactions to information. Information is also assumed to roll slowly into the markets randomly and new information is available to all participants at little or no cost. The efficient market hypothesis assumed that participants in the economy have significant facts relating to all macroeconomic variables fluctuations giving reflection in stock prices. Changes in stock prices are mostly determined by macroeconomic variables like the supply of money in the country, inflation, and exchange rate (Fama, 1981).

This theory is also relevant to this theory because it helps to make inferences that changes in macroeconomic factors affect the performance of deposit money banks.

### 2.2.3 Modern portfolio theory

This theory was promoted by Markowitz in 1952. The portfolio theory speculates that investors build investment portfolios on an exclusive basis of risk and return trade-off. The theory assumes that investors or individuals prefer more return to less return, and they also prefer less risk to higher risk. This will result in investment portfolios comprising of individual assets whose total impact on the portfolio are the one that maximizes returns while minimizing the risk exposure (Markowitz, 1952).

Markowitz (1952) emphasized that the basic and most widely accepted model for portfolio selection is the expected rate of return and estimated risk. He highlighted the risk-mitigation advantages of having a well-diversified portfolio of assets. The portfolio objective may be associated with income or capital gains. The portfolio objective may be associated with income or capital gains. An income-oriented portfolio involves selecting of investment for current income of dividends or interests, while a Growth-oriented involves collecting investments selected for their price appreciation attributes. Thus, investors have to make decisions on how to trade their portfolios for maximum benefits.

Portfolio theory offers a comprehensive context to aid the understanding of systematic risk and reward interactions (Hiriyappa, 2008). Macroeconomic variables affect the general business environment within an economy (Brueggeman & Fisher, 2011). An environment of unstable macroeconomic variables such as unstable exchange rate or inflationary pressure implies that return accruing to business and firms, Deposit Money Banks inclusive shall fluctuate. Doubt in returns then creeps in leading to higher risk. Also, the financial performance of firms in such

environments fluctuates. Bank management should thus be on the lookout for macroeconomic fluctuations and embrace accordingly as quickly as possible (Pandey, 2009).

#### **2.2.4 Structure-conduct performance theory**

According to Mensi and Zouari (2011), even the earliest models of the structure-conduct-performance theory are concerned with questions about the trilateral connection between the three poles of structure, conduct, and performance. The logic of SCP explains that market concentration subdues the cost of collusion between firms and produces above-normal profits. The more the firms in the market the more competitive the firm's behavior would be. The profit generated comes as a result of the exploitation of market power, which eventually reduces consumer surplus. The primal idea of the structure conduct performance theory is that the industry structure determines conduct and influences the performance of the industry.

Bikker and Bos (2008) assert that the structure conduct performance specifies that as market concentration increases, the bank profitability should decrease if there is no fraudulent act amongst firms in the industry. Nevertheless, if the bank performance improves as concentration increases, then the firms in the industry are colluding to reap oligopoly profits. The structure-conduct-performance model assumes that bank behavior is influenced by market structure, which in turn affects the performance of the bank. Banks are more prone to collude in a more concentrated market, and their oligopoly rents boost performance.

Goddard, Molyneux, and Wilson, (2004) stated that in this theory the concentration level of the market through conduct link determines the performance of firms. A high concentration of firms leads to collusive behaviour (conduct). Due to this, if the firm increases. One of the first sets of tests of the validity of structure-conduct-performance theory for the banking market was

performed by (Kaufman, 1966). In his study of Iowa banking market for the 1959-1960 period the researcher found out that statistically a significant positive but weak relationship exists between the concentration level of the market and financial performance of banks operating in this market. From his research, he concluded that the link between concentration and bank profitability is nonlinear.

### **2.3 Empirical Review**

Erina and Lace (2013) investigated the impact of external and internal bank performance factors on Latvian commercial banks' profitability measures. The variables studied were operational efficiency, portfolio composition and management, capital and credit risk, and profitability measures were ROA and ROE. The sample included Latvian commercial banks and foreign bank branches, as well as credit institutions incorporated in European Economic Area countries or their Latvian branches, from 2006 to 2011. The data was analyzed by a survey, correlation, and regression analysis. Profitability, according to the researchers, had a positive impact on portfolio composition, operational efficiency, and management, but harmed credit and capital risks, as indicated by ROA. While a positive relationship existed between the composition of the ROE and capital portfolio and a negative relationship with operational efficiency and credit risk. The authors discovered that GDP had a positive impact on profitability as evaluated by ROA and ROE.

Before, during, and after the financial crisis of 2008, Muhammed (2014) looked into the impact of bank-specific, industry-specific, and macroeconomic variables on bank profitability. For the years 2006-2012, the sample includes 73 UK commercial banks. The data were analyzed using regression and correlation analysis. Internal factors were discovered to be positively connected

with both the profitability measures ROA and ROE. The interest rate, on the other hand, has a positive effect on bank profitability, whereas GDP and inflation have a negative effect.

Sayedi (2018) examined bank-specific (liquidity), industry-specific (market power), and macroeconomic (GDP) determinants of banks' profitability in Nigeria. Bank-specific was proxy by liquidity, industry-specific was proxy by market power and macroeconomic determinants were proxy by GDP. The sample size included 15 commercial banks and for the period from 2006-2011. Multiple regressions were used to analyze the data. The findings demonstrated that market power, GDP, and liquidity all had a substantial positive impact on profitability.

Athanasoglou, Panayiotis, Brissimis, Sophocles, Delis, and Matthaios (2005) studied the impact of bank-specific, industry-specific, and macroeconomic variables on bank profitability. For the years 1985-2001, the sample consisted of a panel of Greek banks. For data analysis, they used the Generalized Method of Moments. The study shows that the profitability of Greek banks is determined by bank-specific factors (controlled by bank-level management) as well as macroeconomic, control variables that are not the direct outcome of a bank's managerial decisions. However, industry structure does not appear to have a significant impact on profitability.

Aspal, Dhawan, and Nazneen (2019) explored the influence of bank-specific factors and macroeconomic factors on the performance of private sector banks in India. The sample included 20 private sector banks for the period 2008-2014. Multiple regressions were used to analyze the data. The researchers concluded that all bank-specific variables (asset quality, management efficiency, earning quality, and liquidity) except capital adequacy ratio (CAR) variable, and

macroeconomic variable GDP had significantly influenced the financial performance of sample banks in India and inflation was statistically insignificant in case of its effect on ROA.

Abiodun and Mlanga (2019) investigated if and how firm-specific characteristics and macroeconomic factors affect the financial performance of deposit money banks in Nigeria. The sample included 15 deposit money banks operating in Nigeria over the period 2005-2014. They employed multiple regression techniques for data analysis. It showed in the study that Fund Source, Loan Quality, Liquidity, Management Quality, and Direction of Efforts were bank-specific characteristics that contributed significantly to the financial performance of the banks whereas Capital Strength was found to be insignificant. Also, the three macroeconomic factors considered, i.e., economic growth, inflation, and the annual lending rate, were discovered to be significant factors that affected the performance of banks in Nigeria in the study period.

Gikombo and Doris (2018) investigated the impact of selected economic variables on the profitability of Kenyan commercial banks. From 2012 to 2016, the sample included all 44 licensed commercial banks in Kenya as of December 2016. The data was analyzed using the regression model. The study found that real interest rates have a substantial impact on commercial banks' Return on Assets and Return on Equity, which are both indicators of profitability. Among the variables, GDP had the greatest impact on commercial bank profitability, while exchange rates had the least impact on commercial bank profitability. Inflation has no influence on ROA as a measure of commercial bank profitability.

Hasanov, Bayramli, and Al-Musehel (2018) investigated bank-specific and macroeconomic determinants of bank profitability in Azerbaijan, an oil-dependent economy in transition. The sample included 22 Azerbaijani banks over the quarterly period from the first quarter of 2012 to

the first quarter of 2017. Generalized Method of Moments was employed for data analysis. The research concluded that loans, Bank size, and capital, as well as the economic cycle, inflation expectation, and oil prices, were positively related to the profitability, whereas deposits, liquidity risk, and exchange rate devaluation were negatively associated with it.

Milhem and Abadeh (2018) conducted a comparative analysis of Islamic and conventional Jordanian banks to assess the impact of macroeconomic factors on bank profitability and liquidity in Jordan. For the period 2005-2015, the sample includes two Islamic banks and thirteen conventional banks. The data was analyzed using the Multiple Regression Model. According to the findings of the study, the inflation rate has a substantial positive influence on the liquidity of conventional banks (cash deposit ratio and loan deposit ratio). Inflation has a weak effect on conventional bank profitability (ROA and ROE), whereas GDP has a significant positive impact on conventional bank profitability (ROA), (ROE), and conventional bank liquidity (CDR) (Current asset ratio). However, the inflation rate has a minor impact on Islamic bank profitability and liquidity, while GDP has a minor impact on Islamic bank profitability and liquidity.

Kamande, Zablon, and Ariemba (2016) evaluated the influence of bank-specific factors on commercial banks' financial performance in Kenya. For the period 2011-2015, the sample includes 11 banks listed on the Nairobi Securities Exchange. The data were analyzed using regression analysis. The study discovered a significant decline in capital sufficiency during five years. The study also found that asset quality has an impact on bank profitability and financial performance. According to the study, asset quality has the greatest influence on bank ROA.

Moyo and Tursoy (2020) investigated the impact of inflation and exchange rates on the financial performance of South African commercial banks. For the period 2003-2019, the sample

contained four of South Africa's top commercial banks (Standard Bank, Nedbank, Capitec Bank, and Firstrand Bank). The data was analyzed using the ARDL, FMOLS, and DOLS models. According to the findings, there is a significant negative correlation between inflation and return on equity and a weak correlation between exchange rate and return on equity.

Baba and Nasieku (2016) investigated the impact of macroeconomic factors on the financial performance of Nigerian commercial banks. Correlation analysis was used to examine 150 company companies during three months. According to the study, the real interest rate, unemployment rate, and exchange rate are all negatively and significantly correlated with the performance of commercial banks in Nigeria, but inflation has a negative but insignificant relationship with financial performance.

Simiyu and Ngile (2015) evaluated the impact of macroeconomic variables on the financial performance of Nairobi Securities Exchange-listed commercial banks (NSE). For the years 2001 to 2012, the sample contained ten commercial banks listed on the Nairobi Securities Exchange (NSE). The data was analyzed using a fixed-effects model. The study found that the rate of real GDP growth had a positive but insignificant effect on commercial bank profitability as measured by Return on Assets (ROA). Furthermore, real interest rates had a significant adverse impact on the profitability of Kenya's listed commercial banks. While the exchange rate had a substantial positive influence on the profitability of Nairobi-listed commercial banks, the broad money supply, and the unemployment rate had a negative and moderate effect on Return on Equity.

Kiganda (2014) examined the effect of macroeconomic factors on commercial banks' profitability in Kenya: a case of equity bank limited from 2008-2012. Correlation and regression analysis inferential data analysis (Ordinary least square) was used to analyze the data. The

researcher found out that Macroeconomic factors (real GDP, inflation, and exchange rate) have an insignificant effect on bank profitability in Kenya with Equity banks.

Nyabakora, Mng'ang'a, and Ngomaitara (2020) explored how macroeconomic variables affect bank performance in Tanzania. From the year 2011 to 2019 The data were analyzed using the multiple regression techniques in the study. According to the data, the interest rate has a negative and inconsequential impact on bank performance, whereas the GDP growth rate has a mildly significant correlation with bank performance. At the 10% level of significance, the data show that the exchange rate has an insignificant negative effect on bank performance. Furthermore, at a 10% level of significance, the inflation rate has a negative and insignificant effect on bank performance.

## **2.4 Gaps in the literature**

Reviewing of literature on the topic indicated that only a few studies have been carried out on the impact of both macroeconomic, industry-specific, and bank-specific factors on the financial performance of Deposit Money Banks.

While evaluating the kinds of literature, different gaps were found which include:

1. Time gap: the number of years used for most of the studies was below ten years
2. Variable exclusion gap: None of the studies made use of the Treasury bill rate as a variable to measure industry-specific factors.
3. Location gap: most of the studies were carried out in a foreign country.

## CHAPTER THREE

### METHODOLOGY

#### **Preamble**

This chapter explains the methodology used in the study, it defines research design, the population of the study, sampling technique and size, method of data collection, sample frame, method of data analysis, and the model specification

#### **3.1 Research Design**

Mugenda and Mugenda (2003) described the research design as a frame of methods and procedure for the acquisition of information that is needed. It entails the entire structure of the project that specifies the information to be collected and by what procedure from the source.

The *ex post facto* research design is adopted for this study because it involves the collection of secondary data through annual reports and the CBN Bulletin.

#### **3.2 Population of Study**

Any group of humans or non-human elements, such as objects, is referred to as a population. The target population for this study is the banking sector, specifically the deposit money banks. As of 1st January 2021, according to the list of deposit banks published by the Central Bank of Nigeria, there are 22 deposit money banks in Nigeria. And these deposit money banks are subdivided into three groups. This includes eight deposit money banks with International authorization licenses (Access bank Plc., Fidelity bank Plc, First city Monument Bank, First Bank of Nigeria, Union Bank Nigeria Plc, United Bank of Africa, Zenith Bank, Guaranty Trust bank), Ten deposit money banks license with National authorization (Citibank Nigeria Limited, Ecobank Nigeria

Limited, Keystone Bank Limited, Polaris Bank Limited, Stanbic IBTC Bank Plc, Standard Chartered Bank, Sterling Bank Plc., Titan Trust Bank Limited, Unity Bank Plc, Wema Bank Plc. ) and four deposit money banks license with Regional authorization ( Heritage Banking Company Limited, Globus Bank Limited, SunTrust Bank Nigeria Limited, Providus Bank Limited).

### **3.3 Sampling Technique**

The process of picking a sample from a population is known as sampling. A sample is a group of some items drawn from the entire population. The stratified random sampling technique is adopted for this study. It helps to focus on certain characteristics that are significant to the selected group. Five deposit money banks licensed with international authorization are selected from 22 (twenty-two) deposit money banks in Nigeria.

### **3.4 Sampling Size Determination**

Ezejuele and Ogwo (1990) stated that a minimum of 10% of the population is considered appropriate for sampling. There are 22 deposit money banks in Nigeria. And these deposit money banks are subdivided into 3, which include 8 deposit money banks license with international authorization, 10 deposit money banks license with National authorization and 4 deposit money banks license with regional authorization. For this study 5 banks have been selected based criterion of being a deposit money bank license with international authorization. These 5 banks represent 22.7% of the total number of 22 deposit money banks in Nigeria. Each of the banks will be semi-annualized for ten years making a sample size of 100 (5\*20)

### **3.5 Sample Frame**

The sampling frame for this study comprises of 5 out of the 8 banks that are licensed with international authorization and they are listed below

**Table 3.1** list of sampled deposit money banks licensed with international authorization

S/N	Name of the Bank	Years of establishment
1	First Bank of Nigeria PLC	1894
2	Access Bank PLC	1989
3	Guaranty Trust Bank PLC	1990
4	United Bank of Africa PLC	1948
5	Zenith Bank PLC	1990

The above listed banks represent 22.7% of the total number of deposit money banks in Nigeria.

### **3.6 Method of Data Collection**

To carry out any research activity, information is collected from appropriate sources. The method used in gathering data for this study is the secondary sources. Financial data of 10 years from secondary sources mainly from Central Bank of Nigeria (CBN) statistical bulletin and semi-annual published audited financial statement reports of each of the sample banks from year 2010- 2019 were used for the study. The data gathering process focused on the element of statement of financial position and the income statements accounts

### **3.7 Method of Data Analysis**

According to Mugenda and Mugenda (2003) data must be cleaned, coded and properly analysed in order to obtain meaningful information. The statistical package used to analyse the data was SPSS (Statistical Package for Social sciences) version 23. The technique adopted in this study is the ordinary least square method (OLS) of multiple regressions which is well known as best linear unbiased estimator (BLUE). In analysing data collected to investigate the effect of economic variables on the performance of the banking sector, econometrics instrument such as multiple regressions are used. The multiple regression technique is best used to test the relationship between the economic variables and financial performance of banks. The methodology of ordinary least square technique of model estimation is mostly used in econometric analysis because of its computation simplicity and poses some prominent features like optimal property of parameter estimates such as biasedness, fair in computation when compared with other econometrics techniques and assumed lowest variable property.

### **3.8 Model Specification**

#### **Functional variable**

ROA=  $f$  (INF, TBR, LDR)

ROA= Return on asset

INF= Inflation rate

TBR= Treasury bill rate

LDR= Loan to deposit ratio

## Regression variables

$$ROA_{it} = \alpha_0 + \alpha_1 INF + \alpha_2 TBR + \alpha_3 LDR + \varepsilon_{it}$$

$\alpha_1 - \alpha_3$  = coefficient of independent variables

$\alpha_0$  = Intercept

$\varepsilon$  = Error term

**Table 3.2 Measurement of Variables**

S/N	VARIABLE	DEFINITION	TYPE	MEASUREMENT
1	ROA	Return on Asset	Dependent	Net income after tax/total assets
2	INF	Inflation rate	Independent	Consumer price index
3	TBR	Treasury Bill Rate	Independent	Government treasury bill rate
4	LDR	Loan to Deposit ratio	Independent	Total loans divided by Total deposits

## CHAPTER FOUR

### DATA ANALYSIS AND PRESENTATION

#### **Preamble**

This chapter covers data analysis and findings of the research. The study aimed to assess the impact of macroeconomic factors, industry-specific factors, and banks' specific on the performance of deposit money banks in Nigeria. It, therefore, sought to answer the following research questions, the way in which inflation rate, treasury bills rate, loan to deposit ratio influence performance of deposit money banks in Nigeria. Data were obtained from the Central Bank of Nigeria (CBN) Statistical Bulletin and semi-annual reports of five selected banks in Nigeria. The data is summarized and presented in form of tables, graphs, and figures. The collected data has been analyzed and interpreted in line with the aims of the study namely, to ascertain if inflation rate (INFR) has a significant relationship with the performance of deposit money banks in Nigeria, to determine if treasury bills rate (TBR) has a significant relationship with performance of deposit money banks in Nigeria, to examine if the loan-to-deposit ratio (LDR) has a significant relationship with performance of deposit money banks in Nigeria.

#### **4.1 Results**

In regression analysis, the model summary shows the predictive power of the model. R is the correlation coefficient between the dependent variable (observed) and the independent variable (s), the predictor(s). The sign of R indicates the direction of the relationship (positive or negative), the value of which ranges from -1 to 1. The absolute value of R indicates the strength, with a larger absolute value indicating a strong relationship.

The R squared (co-efficient of determination) shows the degree of linear- correlation of variables (goodness of fit) in regression analysis. This is the proportion of variation in the dependent variable explained by the regression model. In other words, it illustrates how much variance in the dependent variable can be explained by the independent variable(s). The sample R squared is a moderate approximation of the model's fit to the population. Only the number of variables in the regression model was modified in the adjusted R square. The standard deviation of the residuals represents the standard error of the estimate. It attempts to correct R squared to more accurately reflect the model's goodness of fit. It's the R squared value for the number of variables in the regression model adjusted for the number of variables.

The standard error of estimates is the standard deviation of the residuals and As R squared increases, the standard error of the estimate decreases. In other words, a better fit leads to less estimate error. It is an important indicator of how precise an estimate of the population parameter the sample statistic is. The ANOVA table tells us the overall significance of the model. The t-test is used when the population parameters (mean and standard deviation) are not known. A T-test is based on t-distribution and is considered an appropriate test for judging significance test for judging the significance of the difference between the means of two samples in the case of a small sample when the population variance is unknown. The F-statistics is the regression mean square (MSR) divided by the residual mean square. F-statistics determine whether the model is a good fit for the data based on its significance level. A significant value of F-statistics shows that the model is better at predicting the outcome value of the dependent variable than its average. If the significance value of the F-statistics is smaller than 0.05, the independent variable(s) is significant to explain the variation in the independent variable and the null hypothesis is accepted.

The standard co-efficient or beta is an attempt to make the regression co-efficient more comparable. It provides a useful way of seeing what impact changing the explanatory variable by one standard deviation will have on the independent variable. It is usually equal to the correlation coefficient between the variables.

## Hypothesis 1

### Relationship between Return on Assets (ROA) and Inflation Rate

**Table 4.1: Model 1 Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.006 <sup>a</sup>	.000	-.125	.48339

a. Predictors: (Constant), INFLATION RATE

**Table 4.2: ANOVA (model 1)**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.000	1	.000	.000	.987 <sup>b</sup>
	Residual	1.869	8	.234		
	Total	1.869	9			

a. Dependent Variable: RETURN ON ASSETS

b. Predictors: (Constant), INFLATION RATE

**Table 4.3: Regression Coefficients (Model 1)**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	2.582	.603		4.285	.003
INFLATION RATE	.001	.049	.006	.017	.987

a. Dependent Variable: RETURN ON ASSETS

From the regression tables above (Table 4.1 – 4.3), the model summary result indicated that there is a positive but very weak correlation between return on assets and inflation rates in Nigeria. This is reflected in the value of the coefficient of the correlation (R) which is 0.006. This value indicates that the strength of the relationship between the two variables under study is about 0.6% while other variables in the model are constant. The coefficient of determination (R<sup>2</sup>) showed a value of 0.000 which indicates about 0%. This result implies that on average, a variation in return on assets within the period under review is systematically not explained or affected by changes in inflation rates. This is also explained by the value of t-statistics = 0.017 and its probability value of 0.987. The probability value is above the benchmark of 0.05 (5%). The decision rule follows that if the t-value and its corresponding p-value are above the 5% level of significance, we accept the null hypothesis and reject the alternative hypothesis. In this instance, it is above, resulting in accepting the null hypothesis of no significant relationship. In essence, the macroeconomic factor (inflation) although has a positive relationship with the performance of deposit banks in Nigeria, the relationship is not significant.

## Hypothesis 2

### The relationship between Return of Deposits and treasury bills rate

**Table 4.4: Model 2 Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.440 <sup>a</sup>	.194	.093	.43398

a. Predictors: (Constant), TREASURY BILLS RATE

**Table 4.5: ANOVA (Model 2)**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.363	1	.363	1.926	.203 <sup>b</sup>
	Residual	1.507	8	.188		
	Total	1.869	9			

a. Dependent Variable: RETURN ON ASSETS

b. Predictors: (Constant), TREASURY BILLS RATE

**Table 4.6: Regression Coefficients (Model 2)**

Model		Unstandardized Coefficients		Beta	t	Sig.
		B	Std. Error			
1	(Constant)	2.966	.303		9.803	.000
	TREASURY BILLS RATE	-.046	.033	-.440	-1.388	.203

a. Dependent Variable: RETURN ON ASSETS

From the regression tables above (Table 4.3 – 4.6), the model summary result indicated that there is a negative but weak correlation between return on assets and Treasury bill rates in Nigeria. This is reflected in the value of the coefficient of the correlation (R) which is 0.440. This value indicates that the strength of the relationship between the two variables under study is about 44.0% while other variables in the model are constant. The coefficient of determination (R<sup>2</sup>) showed a value of 0.194 which indicates about 19.4%. This result implies that on average, a variation in return on assets within the period under review is systematically explained by 19.4% changes in treasury bills rates, while other variables in the model are constant. The value of t-statistics = -1.388 and its probability value of 0.203. The probability value is above the benchmark of 0.05 (5%). The decision rule follows that if the t-value and its corresponding p-value are above the 5% level of significance, we accept the null hypothesis and reject the alternative hypothesis. In this instance, it is above the 5% benchmark rate, resulting in accepting the null hypothesis of no significant relationship. In essence, the industry-specific factor (treasury bills rate) has a negative relationship with the performance of deposit banks in Nigeria and the relationship is not significant.

### **Hypothesis 3**

#### **Relationship between Return on Assets and Loan-to-Deposit ratio**

**Table 4.7: Model 3 Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.555 <sup>a</sup>	.309	.222	.40197

a. Predictors: (Constant), LOAN TO DEPOSIT RATIO

**Table 4.8: ANOVA (Model 3)**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.577	1	.577	3.569	.096 <sup>b</sup>
	Residual	1.293	8	.162		
	Total	1.869	9			

a. Dependent Variable: RETURN ON ASSETS

b. Predictors: (Constant), LOAN TO DEPOSIT RATIO

**Table 4.9: Regression Coefficients (Model 3)**

Model	Unstandardized Coefficients			Standardized Coefficients	t	Sig.
	B	Std. Error	Beta			
1 (Constant)	4.252	.888			4.789	.001
LOAN TO DEPOSIT RATIO	-.023	.012	.555		-1.889	.096

a. Dependent Variable: RETURN ON ASSETS

From the regression tables above (Table 4.6 – 4.9), the model summary result indicated that there is a negative but strong correlation between return on assets and loan-to-deposit ratio in Nigeria. This is reflected in the value of the coefficient of the correlation (R) which is 0.555. This value indicates that the strength of the relationship between the two variables under study is about 55.5% while other variables in the model are constant. The coefficient of determination (R<sup>2</sup>) showed a value of 0.309 which indicates about 30.9%. This result implies that on average, a variation in return on assets within the period under review is systematically explained by 30.9% changes in loan-to-deposit, while other variables in the model are constant. The value of t-

statistics = -1.889 and its probability value of 0.096. The probability value is above the benchmark of 0.05 (5%) but within the 0.10 (10%) significant level. The decision rule follows that if the t-value and its corresponding p-value are above the 5% level of significance but within the tolerated level such as 10%, we reject the null hypothesis and accept the alternative hypothesis. In this instance, although it is above the 5% benchmark rate, it is within 10%, resulting in rejecting the null hypothesis of no significant relationship and accepting the alternative hypothesis of a significant relationship. In essence, the bank-specific factor (loan-to-deposit) has a negative relationship with the performance of deposit banks in Nigeria and the relationship is mildly significant.

**The overall relationship between the dependent variable (return on assets) and the independent variables (inflation rate, treasury bills rate and loan-to-deposit rate)**

**Table 4.10: Model 4 Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.775 <sup>a</sup>	.601	.402	.35256

a. Predictors: (Constant), LOAN TO DEPOSIT RATIO, TREASURY BILLS RATE, INFLATION RATE

**Table 4.11: ANOVA (Model 4)**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.124	3	.375	3.013	.116 <sup>b</sup>
	Residual	.746	6	.124		
	Total	1.869	9			

a. Dependent Variable: RETURN ON ASSETS

b. Predictors: (Constant), LOAN TO DEPOSIT RATIO, TREASURY BILLS RATE, INFLATION RATE

**Table 4.12: Regression Coefficients (Model 4)**

Model	Unstandardized Coefficients			Standardized Coefficients	t	Sig.
	B	Std. Error	Beta			
1 (Constant)	4.714	.845			5.577	.001
INFLATION RATE	.033	.040	.236		.812	.448
TREASURY BILLS RATE	-.050	.028	-.471		-1.797	.123
LOAN TO DEPOSIT RATIO	-.030	.012	-.706		-2.459	.049

a. Dependent Variable: RETURN ON ASSETS

From the overall regression tables above (Table 4.10-4.12), the model summary result indicated that there is a positive and strong correlation between return on assets (the dependent variable) and the independent variable (inflation rate, treasury bills rate, and loan-to-deposit rate) in Nigeria. This is reflected in the value of the coefficient of the correlation (R) which is 0.775. This value indicates that the strength of the relationship between the variables under study is about 77.5%. The coefficient of determination (R<sup>2</sup>) showed a value of 0.601 which indicates about 60.1%. This result implies that on average about 60.1% of variations in return on assets within the period under review are systematically explained by changes in all the independent variables. Thus, about 40% variations in the return on assets remain unexplained by these explanatory variables. For the overall level of significance for the model, f-statistics is relevant. The value of f-statistics and its corresponding probability determines if all the independent variable has a significant relationship with the dependent variable. The f-statistic value in this model is 3.013 and has a corresponding p-value of 0.116. The p-value is above the 0.05 threshold of the level of significance. Therefore, all the independent variables (Inflation rate,

Treasury bill rate, loan to deposit ratio) jointly do not have a significant relationship with the performance of deposit money banks in Nigeria.

When the overall regression is considered, while the other two variables (Inflation rate and Treasury bills rate) do not have a significant relationship, there exists a relationship between ROA and loan-to-deposit ratio. The t-statistic value -2.459 with a corresponding p-value of 0.049 which is below 0.05 (5%) significant level. In essence Loan-to-deposit ratio in the model has a negative and significant relationship with return on assets.

The overall regression model can be stated as:

$$ROA = 4.714 + 0.033 (INFL) - 0.050 (TBR) - 0.030 (LDR) + \epsilon$$

## 4.2 Discussion of results

This section of the study discussed the result of the estimation in line with the objectives of the study. There are three specific objectives in this study.

### 4.2.1 Relationship between inflation rate and financial performance

It was found out from the data in (table 4.1-4.3) that there was a positive insignificant relationship between inflation rate and financial performance which was achieved by regressing the inflation rate against the return on an asset which proxy for the bank's financial performance. This finding aligns with the findings of Kiganda (2014), Baba and Nasieku (2016), Hassanov et al (2018), Aspal et al (2019) which concluded that there is a positive and insignificant relationship between the inflation rate and financial performance of Nigerian Deposit Money

banks but in contrary to Abiodun and Mlanga(2019), Gikombo and Doris(2018), Muhammed (2014)

#### **4.2.2 Relationship between Treasury bills rate and financial performance**

It was found out from the data in (table 4.4-4.6) that there was a negative insignificant relationship between Treasury bills rate and financial performance which was achieved by regressing the Treasury bills rate against the return on an asset which proxy for the bank's financial performance. This finding cannot be linked to any of the previous studies because none of the studies employed treasury bills rate as a measure of an industry-specific variable. This is a gap that this study filled

#### **4.2.3 Relationship between loan to deposit ratio and financial performance**

The study found out from the data in (table 4.7-4.9) that there was a negative significant relationship between loan to deposit ratio and financial performance which was achieved by regressing the loan to deposit ratio against the return on an asset which proxy for the bank's financial performance. This finding is contrary to the conclusion reached by Muhammed (2014), Sayedi (2018), Aspal et al (2019), Abiodun and Mlanga (2019) that concluded that liquidity has a positive significant influence on the financial performance of banks.

## CHAPTER FIVE

### SUMMARY, CONCLUSION AND RECOMMENDATIONS

#### Preamble

This chapter contains the summary of the research project which includes the purpose and the method of obtaining the results as presented in the study. It contains the conclusion of the findings of the study. Lastly, recommendations were made in line with the summary and conclusion of the study.

#### 5.1 Summary of the Findings

The main objective of this study was to investigate the impact of economic variables on the financial performance of Nigerian deposit money banks. Specifically, the study examined the relationship between inflation rate, treasury bills rate, loan to deposit ratio, and financial performance of Nigerian deposit money banks. The study adopted the ex post facto research design. The population was all the deposit money banks with a commercial banking license and the stratified sampling technique was adopted. The data for the study was gathered from secondary sources mainly from the Central Bank of Nigeria (CBN) statistical bulletin and semi-annual published audited financial statement reports of each of the sample banks from the year 2010- 2019 were used for the study.

The study employed the use of multiple regression analysis to analyze each of the three objectives of the study. The findings showed that the inflation rate and treasury bills rate had no statistically significant impact on the return of assets which signifies the performance of the banks but the loan to deposit ratio had a mild significant impact on the return of assets which

signifies the performance of the banks. However, there exists a positive relationship between inflation rate and financial performance but a negative relationship between treasury bills rate and financial performance and loan to deposit ratio and financial performance.

## **5.2 Conclusions**

From the summary of the findings above, the inflation rate had a positive relationship with return on assets suggesting *ceteris paribus* the increase in the inflation rate would increase the return of assets of the bank. Treasury bills rate and loan to deposit ratio had a negative relationship with return on an asset which proved that *ceteris paribus* increase of treasury bills rate and loan to deposit ratio could be detrimental to the financial performance of a bank.

The result however negates the assertion that the inflation rate and the treasury bills rate have a significant impact on the return on an asset but supports the assertion that the loan to deposit ratio has a significant impact on the return on assets of the banks. This could be linked to the fact that the inflation rate and treasury bills rate are not formulated to enhance the financial performance of the bank but the loan to deposit ratio can enhance the performance of the banks.

## **5.3 Recommendations**

**The following recommendations are hereby given considering the results**

1. Having discovered that the loan to deposit ratio has a negative significant influence on the financial performance of the banks, the banks however should maintain a moderate loan to deposit ratio by regulating the way they give out a loan. Because, when they give out an excess loan it will lead to an increase in the loan to deposit ratio which will have a negative effect on the performance of the bank

2. The regulators should increase their inspection of the affairs of banks so that they will conform to various circulars and policy statements that affect the banking industry

#### **5.4 Suggestion for Further Research**

An area of further studies should be engendered towards finding out what off-balance sheet items that contribute to the profitability of banks.

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## Appendices

### Appendix 1: SUMMARY OF THE EMPIRICAL REVIEW

S/ N	AUTHO R AND YEAR	TITLE	OBJECTIVE	SAMPLE SIZE AND PERIOD	TECHNI QUE/ME THODOL ogy	FINDINGS	GAP
1.	Erina and Lace (2013)	Commercial banks profitability indicators: Empirical Evidence from Latvia.	The aim of the article is to determine the impact of the external and internal factors of bank performance on the profitability indicators of the Latvian commercial banks	the authors analyzed the Latvian commercial banks and branches of foreign banks, as well as credit institutions incorporated in the European Economic Area countries or their branches in Latvia for the time period from 2006-2011	Survey, correlation and regression analysis	The authors concluded that profitability had a positive effect on operational efficiency, portfolio composition and management, while it has had a negative effect on the capital and credit risks, as measured according to ROA, while according to ROE, positive influence is exerted on composition of the capital portfolio and negative – on operational efficiency and credit risk. The authors have revealed that GDP has a positive impact on profitability as measured by ROA and ROE.	There is time Gap .the research could have extended the time frame
2.	Saeed , M. S. (2014)	Bank-related, Industry-related and Macroecon	To investigate the impact of bank-specific, industry-specific, and	73 UK commercial banks and for the period from	regression and correlation analyses	It was found that internal factors including capital, loan, bank size, deposits, and	There is a time gap and this study was carried out

		omic Factors Affecting Bank Profitability: A Case of the United Kingdom	macroeconomic variables on bank profitability before, during, and after the financial crisis of 2008.	2006-2012		liquidity are positively correlated with both profitability indicators ROA and ROE. On the other hand, the interest rate has a positive impact on bank profitability whereas GDP and inflation have a negative impact	in a foreign country
3.	Sayedi, S. N. (2018)	bank specific, industrial specific and macroeconomic determinants of banks profitability in Nigeria	To determine the effects of liquidity, market power and Gross Domestic Product (GDP) on the profitability of banks Nigeria.	15 deposit money banks and for the period from 2006-2011	Regression	The empirical result reveals that liquidity, market power and Gross Domestic Product (GDP) have significant positive effects on profitability.	There is a time gap
4.	Athanasoglou, Panayiotis, Brissimis, Sophocles, Delis, & Mattheios (2005)	bank-specific, industry-specific and macroeconomic determinants of bank profitability	to examine the effect of bank-specific, industry-specific and macroeconomic determinants of bank profitability	A panel of Greek banks for the period 1985-2001	Generalized Method of Moments	The study provide evidence that the profitability of Greek banks is shaped by bank-specific factors and macroeconomic, control variables that are not the direct result of a bank's Managerial decisions. Yet, industry structure does not seem to significantly affect Profitability.	It is a foreign study
5.	Aspal, Significanc	To explore the	20 private	multiple	It was revealed	It is a	

	Dhawan & Nazneen (2019)	Effects of Bank Specific and Macroeconomic Determinants on Performance of Indian Private Sector Banks	influence of bank specific factors and macroeconomic factors on the performance of private sector banks in India.	sector banks for the period 2008-2014	regression	that except capital adequacy ratio (CAR) variable all other bank specific variables (asset quality, management efficiency, earning quality and liquidity) and macroeconomic variable GDP had significantly influenced the financial performance of sample banks in India and inflation was statistically insignificant in case of its effect on ROA.	foreign study
6.	Abiodun & Mlanga (2019)	Effects of Firm-Specific Characteristics and Macro-Economic Factors on Financial Performance of Banks in Nigeria	To investigates if and how firm-specific characteristics and macro-economic factors affect the financial performance of deposit money banks in Nigeria	15 deposit money banks operating in Nigeria over the period 2005-2014	Multiple regressions technique	Fund Source, Loan Quality, Liquidity, Management Quality, and Direction of Efforts were bank specific characteristics that contributed significantly to the financial performance of the banks whereas Capital Strength was found to be insignificant. Also, the three macroeconomic factors considered, i.e. economic growth, inflation, and the annual lending rate, were	The industry specific factor was not analysed in this study

						found to be significant factors that affected the financial performance of deposit money banks in Nigeria in the study period.	
7.	Gikomb o & Doris (2018)	Effect of select macro-economic variables on performance of listed commercial banks in kenya	to determine the effect of selected economic variables on profitability of commercial banks in Kenya.	all the licensed 44 commercial banks in Kenya as at December 2016. From year 2012-2016.	regression	Real interest rate significantly affected ROA and ROE as measures of profitability of commercial banks. Compared to other variables, GDP had the largest effect on profitability of commercial banks. In comparison to other variables, exchange rates however had least effect on profitability of commercial banks. Inflation only had significant effect on ROA as a measure of profitability of commercial banks.	It is a foreign study and only macro-economic variables were considered in the study
8.	Hasanov , Bayramli and Al-Musehel . (2018)	Bank-Specific and Macroeconomic Determinants of Bank Profitability: Evidence from an Oil-	To Investigate bank-specific and macroeconomic determinant of bank profitability in Azerbaijan, an oil-dependent economy in transition	22 Azerbaijani banks over the quarterly period from the first quarter of 2012 to the first quarter of 2017	Generalized Method of Moments	Bank size, capital, and loans, as well as economic cycle, inflation expectation, and oil prices were positively related to the profitability, whereas deposits, liquidity risk, and exchange rate devaluation were	It a foreign study, a time gap and industry specific factor was not analysed in the study.

		Dependent Economy				negatively associated with it.	
9.	Milhem & Abadeh (2018)	The Impact of Macroeconomic Variables on Banks Profitability and Liquidity: An Empirical Study on Islamic and Conventional Banks in Jordan	investigated the impact of macroeconomic determinants on banks' profitability and liquidity in Jordan by making a comparative study between Islamic and Conventional Jordanian banks	2 Islamic banks and 13 conventional banks. for the period 2005-2015.	Regression, t-test, and f-test	There is an insignificant impact of inflation on conventional banks profitability (ROA and ROE), Whereas, there is a statistically significant positive impact of GDP on conventional banks profitability (ROA), (ROE) and conventional banks liquidity (CDR) and (Current asset ratio). However, there is a statistically insignificant impact of inflation rate on Islamic banks profitability and liquidity, and there is a statistically insignificant impact of GDP on Islamic banks profitability and liquidity.	The study analysed only macro-economic factor as the determinant of banks profitability and liquidity
10.	Kamande, Zablon & Ariemba (2016)	The Effect of Bank Specific Factors on Financial Performance of Commercial Banks in Kenya	to determine the effects of bank specific factors on the financial performance of commercial banks in Kenya	11 banks listed in the Nairobi securities exchange. For period 2011-2015	Regression analysis	They show that there has been a significant decrease in capital adequacy during the five-year period. There was also a finding that asset quality affects profitability and the financial	Only bank specific factor was analyzed as the determinant of the financial performance

						performance of banks. The study concludes that Asset quality of the bank have the highest influence on ROA of banks	
11.	Moyo & Tursoy (2020)	Impact of Inflation and Exchange Rate on the Financial Performance of Commercial Banks in South Africa	To examine the impact of inflation and exchange rate on the financial performance of commercial banks in South Africa	four largest commercial banks in South Africa ( Standard bank, Nedbank, Capitec bank and Firstrand bank)for the period 2003-2019	ARDL, FMOLS and DOLS models	The findings illustrated that there is a significant inverse relationship between inflation and the return on equity and there is a weak relationship between exchange rate and the return on equity	Exclusion of industry and bank specific variables
12.	Baba & Nasieku (2016)	Effect of macroeconomic factors on financial performance of commercial banks in nigeria	To analyze the effect of Macroeconomic factors on financial performance of Commercial Banks in Nigeria	150 business enterprises for three months	Correlation Analysis	Real interest rate, unemployment rate as well exchange rate are negatively and significantly associated with the performance of commercial banks in Nigeria, while inflation has an insignificant relationship with financial performance.	Exclusion of industry and bank specific variables
13.	Bhattarai P. B. 018)	Impact of Bank Specific and Macroeconomic Variables on Performance	To examine the impact of bank specific variables and macroeconomic variables on the performance of commercial banks of Nepal	17 Nepal commercial banks over the period of 2011 to 2016	Correlation and regression analysis	The macroeconomic variables (annual growth of gross domestic product, exchange rate and inflation) are not significant and hence there is no	Exclusion of industry specific variables and time gap

		ce of Nepalese Commercial Banks				evidence that external forces have impact over bank performance	
14.	Osamwo nyi & Michael (2018)	The impact of macroeconomic variables on the profitability of listed commercial banks in nigeria	To investigate the impact of macroeconomic variables on profitability of banks in Nigeria	The commercial banks in Nigeria from 1990-2013	Pooled ordinary least method	The findings from the empirical point of view show a positive relationship of gross domestic product (GDP) with return on equity (ROE). Interest rate and inflation rate have a negative relationship with return on equity (ROE). Gross domestic product have a significant positive effect on Return on equity(ROE) while interest rate have a significant negative effect on return on equity(ROE) but inflation is not significant at all levels of significance.	Exclusion of industry and bank specific variables
15.	Simiyu & Ngile (2015)	Effect of macroeconomic variables on profitability of commercial banks listed in the nairobi	to investigate the effect of macroeconomic variables on financial profitability of listed commercial banks in the Nairobi Securities	10 listed commercial banks in Nairobi Securities Exchange (NSE). For years 2001-2012	Fixed Effects model	The real GDP growth rate had positive but insignificant effect to profitability of commercial banks as measured through Return On Assets (ROA). Further, real interest rates had a	

		securities exchange	Exchange (NSE)			significant negative influence on profitability of listed commercial banks in Kenya. While the exchange rate had a positive significant effect on the profitability of listed commercial banks on Nairobi Securities Exchange.	
16.	Kiganda O. E. (2014)	Effect of Macroeconomic Factors on Commercial Banks Profitability in Kenya: Case of Equity Bank Limited	To establish the effect of macroeconomic factors on commercial banks profitability in Kenya: case of equity bank limited.	Annual data from 2008-2012.	correlation and regression analysis inferential data analysis(Ordinary least square)	Macroeconomic factors (real GDP, inflation and exchange rate) have insignificant effect on bank profitability in Kenya with Equity bank in focus.	Exclusion of industry and bank specific variables and time gap
17.	Nyabakora, Mng'anya & Ngomaitara. (2020)	How macroeconomic variables affect banks' performance in tanzania	to examine the factors surrounding the business environment mainly the external forces we now call macroeconomic variables	Banks in Tanzania from 2011 to 2019.	correlation and multiple regression analysis	GDP growth rate has an insignificant positive relationship with Banks performance, while the Interest Rate has a negative and insignificant impact on banks performance. The Inflation rate has a negative and insignificant effect on bank	Exclusion of industry and bank specific variables

						performance at 10% level of significance. Furthermore, the results indicate that the exchange rate has an insignificant negative effect on bank performance at 10% level of significance	
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## Appendix 2: LOAN TO DEPOSIT RATIO

YEAR	ZENITH	FIRSTBANK	GTB	UBA	ACCESS	TOTAL	AVE
2010	80.84	101.11	107.21	79.28	100.02	468.46	93.692
2011	64.42	74.45	69.05	64.50	73.82	346.24	69.248
2012	61.00	75.13	69.97	40.34	49.85	296.29	59.258
2013	66.16	71.35	73.45	45.80	58.53	315.29	63.058
2014	78.10	79.25	82.13	51.47	73.71	364.66	72.932
2015	90.71	65.08	88.98	51.45	81.91	378.13	75.626
2016	97.63	74.96	84.30	64.43	89.02	410.34	82.068
2017	82.12	72.05	74.58	63.03	85.63	377.41	75.482
2018	75.49	59.82	57.22	48.84	66.64	308.01	61.602
2019	78.05	52.87	62.34	57.36	55.73	306.35	61.27

### Appendix 3: Return on Assets of Selected Banks

YEAR	ZENITH	FIRSTBANK	GTB	UBA	ACCESS	TOTAL	AVERAGE
2010	2.1	1.5	3.42	0	2.4	9.42	1.884
2011	2.1	1.3	3.77	-0.5	2.1	8.77	1.754
2012	3.3	2.4	5.22	2.6	3.1	16.62	3.324
2013	3.03	2	4.69	1.9	1.63	13.25	2.65
2014	3.1	2	4.24	1.8	2.9	14.04	2.808
2015	3.5	0.4	4.07	2.2	2.8	12.97	2.594
2016	3.4	0.4	4.69	2.3	2.5	13.29	2.658
2017	3.36	0.9	5.27	2.1	2.1	13.73	2.746
2018	3.35	1.1	5.56	1.8	2.1	13.91	2.782
2019	3.4	1.3	5.59	1.7	1.6	13.59	2.718

#### **Appendix 4: Annual Inflation and Treasury Bills Rate**

<b>YEAR</b>	<b>INFL (%)</b>	<b>T/B (%)</b>
2010	13.70	10.25
2011	10.30	16.75
2012	12.00	10.00
2013	8.00	7.50
2014	8.00	8.00
2015	9.55	2.00
2016	18.55	3.00
2017	15.37	9.00
2018	12.22	10.00
2019	11.74	4.00

### Appendix 5: Analyzed Semi-Annual Data

S/N	BANKS	PERIOD	ROA	INFL	LDR	T/B
1.	ZENITH	2010 - HY 1	2.1	13.7	80.84	10.25
2.	ZENITH	2010 - HY 2	2.1	13.7	80.84	10.25
3.	ZENITH	2011 - HY 1	2.1	10.3	64.42	16.75
4.	ZENITH	2011 - HY 2	2.1	10.3	64.42	16.75
5.	ZENITH	2012 - HY 1	3.3	12	61	10
6.	ZENITH	2012 - HY 2	3.3	12	61	10
7.	ZENITH	2013 - HY 1	3.03	8	66.16	7.5
8.	ZENITH	2013 - HY 2	3.03	8	66.16	7.5
9.	ZENITH	2014 - HY 1	3.1	8	78.1	8
10.	ZENITH	2014 - HY 2	3.1	8	78.1	8
11.	ZENITH	2015 - HY 1	3.5	9.55	90.71	2
12.	ZENITH	2015 - HY 2	3.5	9.55	90.71	2
13.	ZENITH	2016 - HY 1	3.4	18.55	97.63	3
14.	ZENITH	2016 - HY 2	3.4	18.55	97.63	3
15.	ZENITH	2017 - HY 1	3.36	15.37	82.12	9
16.	ZENITH	2017 - HY 2	3.36	15.37	82.12	9
17.	ZENITH	2018 - HY 1	3.35	12.22	75.49	10
18.	ZENITH	2018 - HY 2	3.35	12.22	75.49	10
19.	ZENITH	2019 - HY 1	3.4	11.74	78.05	4
20.	ZENITH	2019 - HY 2	3.4	11.74	78.05	4
21.	FIRST BANK	2010 - HY 1	1.5	13.7	101.11	10.25
22.	FIRST BANK	2010 - HY 2	1.5	13.7	101.11	10.25
23.	FIRST BANK	2011 - HY 1	1.3	10.3	74.45	16.75
24.	FIRST BANK	2011 - HY 2	1.3	10.3	74.45	16.75
25.	FIRST BANK	2012 - HY 1	2.4	12	75.13	10
26.	FIRST BANK	2012 - HY 2	2.4	12	75.13	10
27.	FIRST BANK	2013 - HY 1	2	8	71.35	7.5
28.	FIRST BANK	2013 - HY 2	2	8	71.35	7.5
29.	FIRST BANK	2014 - HY 1	2	8	79.25	8
30.	FIRST BANK	2014 - HY 2	2	8	79.25	8
31.	FIRST BANK	2015 - HY 1	0.4	9.55	65.08	2
32.	FIRST BANK	2015 - HY 2	0.4	9.55	65.08	2
33.	FIRST BANK	2016 - HY 1	0.4	18.55	74.96	3
34.	FIRST BANK	2016 - HY 2	0.4	18.55	74.96	3
35.	FIRST BANK	2017 - HY 1	0.9	15.37	72.05	9
36.	FIRST BANK	2017 - HY 2	0.9	15.37	72.05	9
37.	FIRST BANK	2018 - HY 1	1.1	12.22	59.82	10
38.	FIRST BANK	2018 - HY 2	1.1	12.22	59.82	10

39.	FIRST BANK	2019 - HY 1	1.3	11.74	52.87	4
40.	FIRST BANK	2019 - HY 2	1.3	11.74	52.87	4
41.	ACCESS BANK	2010 - HY 1	2.4	13.7	100.02	10.25
42.	ACCESS BANK	2010 - HY 2	2.4	13.7	100.02	10.25
43.	ACCESS BANK	2011 - HY 1	2.1	10.3	73.82	16.75
44.	ACCESS BANK	2011 - HY 2	2.1	10.3	73.82	16.75
45.	ACCESS BANK	2012 - HY 1	3.1	12	49.85	10
46.	ACCESS BANK	2012 - HY 2	3.1	12	49.85	10
47.	ACCESS BANK	2013 - HY 1	1.63	8	58.53	7.5
48.	ACCESS BANK	2013 - HY 2	1.63	8	58.53	7.5
49.	ACCESS BANK	2014 - HY 1	2.9	8	73.71	8
50.	ACCESS BANK	2014 - HY 2	2.9	8	73.71	8
51.	ACCESS BANK	2015 - HY 1	2.8	9.55	81.91	2
52.	ACCESS BANK	2015 - HY 2	2.8	9.55	81.91	2
53.	ACCESS BANK	2016 - HY 1	2.5	18.55	89.02	3
54.	ACCESS BANK	2016 - HY 2	2.5	18.55	89.02	3
55.	ACCESS BANK	2017 - HY 1	2.1	15.37	85.63	9
56.	ACCESS BANK	2017 - HY 2	2.1	15.37	85.63	9
57.	ACCESS BANK	2018 - HY 1	2.1	12.22	66.64	10
58.	ACCESS BANK	2018 - HY 2	2.1	12.22	66.64	10
59.	ACCESS BANK	2019 - HY 1	1.6	11.74	55.73	4
60.	ACCESS BANK	2019 - HY 2	1.6	11.74	55.73	4
61.	GTB	2010 - HY 1	3.42	13.7	107.21	10.25
62.	GTB	2010 - HY 2	3.42	13.7	107.21	10.25
63.	GTB	2011 - HY 1	3.77	10.3	69.05	16.75
64.	GTB	2011 - HY 2	3.77	10.3	69.05	16.75
65.	GTB	2012 - HY 1	5.22	12	69.97	10
66.	GTB	2012 - HY 2	5.22	12	69.97	10
67.	GTB	2013 - HY 1	4.69	8	73.45	7.5
68.	GTB	2013 - HY 2	4.69	8	73.45	7.5
69.	GTB	2014 - HY 1	4.24	8	82.13	8
70.	GTB	2014 - HY 2	4.24	8	82.13	8
71.	GTB	2015 - HY 1	4.07	9.55	88.98	2
72.	GTB	2015 - HY 2	4.07	9.55	88.98	2
73.	GTB	2016 - HY 1	4.69	18.55	84.3	3
74.	GTB	2016 - HY 2	4.69	18.55	84.3	3
75.	GTB	2017 - HY 1	5.27	15.37	74.58	9
76.	GTB	2017 - HY 2	5.27	15.37	74.58	9
77.	GTB	2018 - HY 1	5.56	12.22	57.22	10
78.	GTB	2018 - HY 2	5.56	12.22	57.22	10

79.	GTB	2019 - HY 1	5.59	11.74	62.34	4
80.	GTB	2019 - HY 2	5.59	11.74	62.34	4
81.	UBA	2010 - HY 1	0	13.7	79.28	10.25
82.	UBA	2010 - HY 2	0	13.7	79.28	10.25
83.	UBA	2011 - HY 1	-0.5	10.3	64.5	16.75
84.	UBA	2011 - HY 2	-0.5	10.3	64.5	16.75
85.	UBA	2012 - HY 1	2.6	12	40.34	10
86.	UBA	2012 - HY 2	2.6	12	40.34	10
87.	UBA	2013 - HY 1	1.9	8	45.8	7.5
88.	UBA	2013 - HY 2	1.9	8	45.8	7.5
89.	UBA	2014 - HY 1	1.8	8	51.47	8
90.	UBA	2014 - HY 2	1.8	8	51.47	8
91.	UBA	2015 - HY 1	2.2	9.55	51.45	2
92.	UBA	2015 - HY 2	2.2	9.55	51.45	2
93.	UBA	2016 - HY 1	2.3	18.55	64.43	3
94.	UBA	2016 - HY 2	2.3	18.55	64.43	3
95.	UBA	2017 - HY 1	2.1	15.37	63.03	9
96.	UBA	2017 - HY 2	2.1	15.37	63.03	9
97.	UBA	2018 - HY 1	1.8	12.22	48.84	10
98.	UBA	2018 - HY 2	1.8	12.22	48.84	10
99.	UBA	2019 - HY 1	1.7	11.74	57.36	4
100	UBA	2019 - HY 2	1.7	11.74	57.36	4