EFFECT OF MACROECONOMIC VARIABLES ON FINANCIAL PERFORMANCE OF COMMERCIAL BANKS IN KENYA

BY

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DECLARATION

I, the undersigned declare that this is my original work and has not been submitted for any degree or examination in any other university.

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This research project has been submitted for examination with my approval as University Supervisor.

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DEDICATION

This research project is dedicated to my husband James Njoroge and my children James Kimani and Justus Ngorongo who have been my inspiration. They gave me motivation, support and love which enabled me to complete this project.

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LIST OF ABBREVIATIONS AND ACCRONYMES

CBK	Commercial Bank of Kenya
CPI	Consumer Price Index
FP	Financial performance
GDP	Gross Domestic Product
IFE	International Fisher Effect
KNBS	Kenya National Bureau of Statistics
NSE	Nairobi Securities Exchange
ROA	Return on Assets

ABSTRACT

Macroeconomic variables are critical within the business surrounding. In the banking industry, they have the potential of directly or indirectly influencing their financial performance. The purpose of this research was to assess the effect of macroeconomic variables on financial performance of commercial banks in Kenya. The study period was a five-year period from 2014 to 2018. The population of the study was 41 commercial bank where a descriptive research design was utilized. Secondary data from the audited financial statements of the commercial banks were used. The data collected was arranged in a systematic way which facilitated analysis by use of SPSS. Analyses of data was on the basis of the mean where at 5% significance level the F test statistic was calculated by regression analysis. In testing for the model strength and the effect of macroeconomic variables on financial performance of commercial banks in Kenya, ANOVA was done. From the findings, the F statistic was 2.681 and was found to be significant, inflation rate had a t-value of 0.785 which was insignificant, liquidity had a t-value of -2.764 which was significant, capital adequacy had a t-value of 0.254 which was insignificant, exchange rate had a t-value of -0.872 which was insignificant and interest rate had a t-value of 0.452 that was insignificant. Conclusion of the study was that macroeconomic variables affect the financial performance of commercial banks in Kenya. The study recommends strategies to deal with negative effects of macroeconomic factors for example hedging the foreign exchange risk by purchasing spot contract to cushion against any negative swing and introduction of new products for example mobile lending so as to enhance the financial performance. Finally, the study recommends the inclusion of the qualitative aspects that are probable to affect financial performance to be included in the model of analysis. This will ensure both the qualitative and quantitative factors are considered in the analysis to ensure the results are more conclusive.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

An enormous population of commercial institutions are affected by macroeconomic variables, particularly commercial both regionally and nationally (Oliver, 2010). The environmental situations originating externally from the organization and performs a part in influencing the Financial Performance (FP) of organization refers to macroeconomics (Kuratko & Hodgetts, 2004). The Key macroeconomic variables consist of the interest rates, economic growth, exchange rates and inflation rates. The variables might entail the competitors existing in the market and the employed strategies of competition. Through the evaluation of the macroeconomic variables, the managers are better placed in manner that they can formulate strategies which shall work best for example the performance with be improved as a result of gaining a competitive advantage over it opponents. On the contrast, failure of the management in incorporating the macroeconomic variables in their decisions may severely lead to a decrement in the returns. It is therefore of great importance for an organization to management to consider macroeconomic variables when coming up with strategies for the firms (Wakaba, 2014).

As per Markowitz (1952) modern portfolio theory, he examines the relationship of undiversifiable risk with the anticipated return of a specified financial security. The risk resulting from the macroeconomic variables is the one referred to as undiversifiable risk. Diversified portfolio is supported in this theory since it minimizes the specific risk that is nature unsystematic and that is a result of the microeconomic variables. Fisher (1986) in his hypothesis International Fisher Effect (IFE) posits that spot exchange rate is relied on in adjusting moderately in the reverse progression

of cost differential advancement: consequently, the currency of a nation exhibiting nominal exchange rate that are high are obligated to decline over the currency of a country that is exhibiting nominal exchange rate that are low, because expected inflation is signified by high nominal exchange rate. Stephen Ross (1976), proposed the Arbitrage Pricing Theory (APT) that provides a linkage of Return on Assets (ROA) with other variables linearly and these variables are macroeconomic in nature and they consist of exchange rate and interest rates got an influence directly with the FP.

In Kenya, the FP of firm has been largely influenced by the macroeconomic environment, for instance the Interest Rate Capping (IRC) has been utilized in commercial banks in Kenya to act as a basis for adopting a dividend policy. IRC has resulted to a declining profitability which as a consequence led to poor FP of the commercial banks (CBK, 2017). Additionally, the purchasing power has limited the investors from buying shares whereas the ones in possession of shares have disposed them using the proceeds to meet their expenditure as an eventuality of higher rates of inflations. Consequently, the shares demand has declined leading to a decline in the share prices and on overall negatively influencing the commercial banks FP (Allen, 2015).

1.1.1 Macroeconomic Variables

Macro-economic variables refer particularly to factors of overall importance to the position of countries economy both at the regional and national face. The variables originate externally and the management do not have control over them. The factors go beyond the organization though they to a large extent influence the operation activities of the organization. Inflation rate, Economic growth, exchange rate and interest rates are measures of macroeconomic variables. Consumer Price Index (CPI) is utilized to measure the inflation rates, the rate of conversion of one currency to the other measures exchange rate whereas the average rate of lending by commercial

banks measures interest rates and the Gross Domestic Product (GDP) measures the economic growth. Macroeconomic variables greatly act as guidance of a country's performance economically and thereof the changes are closely monitored by the government (Khalid et al., 2012). Microeconomic factors influence the process of making decision at a firm or group individual level whereas macroeconomic factors affect the economy holistically.

Inflation rate, GDP, interest rates and the market risk exhibits the greatest influence level on the economy (Kwon & Shin, 1999). GDP forms the largest macroeconomic variables and fundamentally it is the aggregation of the estimate of all things and benefits produced within a country during a specified time period which normally one fiscal year. Exchange rates on the other hand is the rate of converting a current to another. The percentage of the total figure of individual in labour market compared to the total figure of unemployed individuals in a country is the unemployment rate (Rjoub et al, 2009).

Mwalkabali (2017), conducted a study aimed on investigating long-term macroeconomic variables of performance of stocks trade in Nigeria within the timeframe 1984 to 2007. The study factored in five variables that include GDP, interest rates, money supply, exchange rate and inflation rates. A conclusion was revealed that all the variables exhibited a log run as well as significant impact on the returns. Kavini (2015), did a research to ascertain the influence of macroeconomic variable on the Kenyan insurance company performance. As representative of macroeconomic variables, Rates of unemployment, inflation rates, and GDP were employed. An investigation by Anecho et al (2014), regarding the influence of macroeconomic variables on development of Uganda capital market employed real, GDP, inflation rates and exchange rates as measurement of macroeconomic variables. The current study adopted interest rates, exchange rates and inflation rates as proxies of macroeconomic variables.

1.1.2 Financial Performance

Financial performance is the measurement of entity's policies and the various operations performed by the entities in monetary terms (Yahaya & Lamidi, 2015). These outcomes are shown in the companies' profitability ratios, gearing measures and liquidity ratios. Profit has always been used as the basis for many business proprieties however; the real determinant of business growth is how efficiently the business entity has employed the capital in the business. FP is the general measurement regarding the current financial position of a firm as well as comparison with other firms (Kajirwa (2015). According to Omondi and Muturi (2013), FPis the measurement of proper utilization of the assets in a firm based on its mode of operation and how revenues are generated.

Any organization in the world is in business for prosperity to greater heights; for any business entity to prosper, it must ensure the financial health at all times (Maghanga & Kalio, 2012). Business organizations can gauge the success of the entities through the analysis of the overall output in monetary terms and this aims at determining how the resources have been employed effectively and efficiently in the organizations. Any business entity can know the worth of their entities by FP analysis (Nyamita, 2014).

1.1.3 Macro-economic Variables and Financial Performance

Several factors can be associated with the variations in most of the firm's financial performance, these factors might include macroeconomic variables changes, government policies as well as the competitive strategies that an organization adopts. Some of macro-economic variables that significantly influence the FP of firms are money supply, inflation rates and real interest, they thereof must be monitored thoroughly (McKinnon & Shaw, 1973). The APT for example gives a prediction of the expected ROA through use of relationship amongst a security expected return and the various macroeconomic variables represented by the systematic risk. Additionally, demand

and supply market forces influence the rates of discounts, the firm's ability of generating cash flow and more so the dividends payment, (Rashid, 2008).

Omondi (2016), investigated how various macroeconomic variables affected the FP of NSE. From his findings it was derived that variabilities and inflation rates that were high lead to decline of profits reported at the NSE. Odkar and Okoko (2012), examined how macroeconomic factors and share trading system related in Nigeria. Mutua (2013) confirmed that inflation being high triggered the performance to decline at the NSE. Henceforth, macroeconomic factors are art and parcel of risks factors in any of the equity market (Rashid, 2008).

An overall improvement of a firm in the economy is greatly influenced by the macroeconomic variables. Growth of the economy is among the largest constituent of macroeconomic variables that has the capability of impacting the not only the growth of an organization but also its development. Favorable economic conditions lead to higher trading activities that are inclusive of the investment activities within the economy and this shall largely expand the economy and consequently contributing largely to the betterment of the FP of organizations (Nazir, 2013). In contrast, bad economic conditions adversely influence the FP of an organization as a repercussion of declined investment activities, high market return volatility and reduced securities trading g in the economy, furthermore exchange rate have the ability to impact the financial performance.

1.1.4 Commercial Banks in Kenya

CBK defines a bank as a business which carries out, or intends to conduct banking activities in Kenya. Commercial banking business involves accepting deposits, giving credit, money remittances and any other financial services. The industry performs one of the very crucial role in the financial sector with a lot of emphasizes on mobilizing of savings and credit provision in the

economy. As per the Bank Supervision Yearly Report (2018), the banking industry comprises of the CBK as the legislative authority. The industry also has 1 mortgage finance, 42 commercial banks and 13 microfinance banks. Among the 42 commercial banks in the country 30 have local ownership while 12 have foreign ownership. 11 of the 42 are listed at the NSE

Macroeconomic environment is critical especially in Kenyan banking industry. It is evident that the subject of IRC has adversely affected the returns of the commercial banks. Also inflation rate when is very high it leads to decrease in the purchasing power. Exchange rate which is the price of a shilling expressed in US dollars has also the potential effect of influencing the FP of commercial banks. For the survival of commercial banks, the CBK has the responsibility of putting proper mechanisms to mitigate the risk of macroeconomic environment which can affect their FP negatively (CBK, 2017).

1.2 Research Problem

Amongst the commercial banks, macroeconomic variables impacts are unavoidable; consequently, essential policies are required should be set in position to aid modification of undesirable effects in arrears to macroeconomic variables so as to enhance the FP. The non-existence of macroeconomic variables evaluation continues to be mentioned as the main source of deteriorated performance amongst financial organizations (Nazir, 2013). Rise and fall of macroeconomic variables have influenced most of the commercial banks for instance inflation rates, exchange rates, level of unemployment and GDP has resulted to the bad financial outcomes as a result of challenges in cash flows and in some cases leading to receiverships. Nevertheless, strong mechanisms have been initiated by commercial banks to mitigate the effects relating to

macroeconomic variable that have shown remarkable financial outcomes that are important to the continued existence of the banks, (Kwon & Shin, 1999).

Despite the significance of the resourcefulness of financial resolutions of commercial banks in Kenya emanating from effective knowledge of the effects of macroeconomic variables, slight considerations continue to be given towards knowledge of the effects on the FP. Commercial banks being the same as other organizations run in an external environment meaning they are also influenced by the macroeconomic variables the same way. FP of commercial banks can be positively influenced by favorable macroeconomic variables, (CBK, 2017).

Not only locally but also globally, studies relating to macroeconomic variables together with FP have been carried out. Savven et al. (2013), examined how FP was impacted by chosen macro-economic variables of certain firms recorded on the Indian securities market within the time frame 2009 to 2012. From the findings, it was discoverd that both real exchange rates and inflation revealed a negative but significant impact on the returns. Kamar (2013), conducted an investigation on the relationship amongst the returns and the macroeconomic variables of Indonesian non quoted commercial banks within the time frame 2002 and 2012 where macroeconomic variables which include GDP, inflation, exchange and interest rates were utilized. The outcomes discovered that GDP, inflation and interest rates did not have a positive relationship with FP. A research was done by Falope (2013) to evaluate the influence of macroeconomic variables on FP of Pakistan commercial banks and it was revealed that the rate of interest had a significant influence on the FP.

Studies have also been done locally, Kioko (2017), conducted a study to examine how FP of listed firms at the NSE was influence by the macroeconomic factors. A conclusion was arrived to that

factors for instances interest rates significantly impacted FP. Wafula (2016), did an analysis in investigating the impact of macroeconomic factors which included unemployment rates, inflation rates and the rate of interest on the performance of the Kenya securities market. The outcomes revealed a nonexistence of a significant influence of macroeconomic variables on the performance of Kenyan securities market. Opposing conclusions have emerged from the several studies reviewed in regards to the effect of macroeconomic variables on the FP. In addition, majority of the works done adopted period that are short and also did not do a population study rather used sampling which were very small and consequently this translated to varied findings. Therefore, providing a justification for filling the research gap by responding to the research question. What is the effect of macroeconomic variables on the financial performance of commercial banks in Kenya?

1.3 Research Objective

To ascertain the effect of macroeconomic variables on the financial performance of commercial banks in Kenya.

1.3.1 Specific Objectives

i. To ascertain theoretically expected relationship between inflation rates and financial performance of commercial banks in Kenya.
ii. To ascertain theoretically expected relationship between interest rates and financial performance of commercial banks in Kenya.
iii. To ascertain theoretically expected relationship between exchange rate and financial performance of commercial banks in Kenya.

1.4 Value of the Study

This study is of great use to the Central Bank of Kenya (CBK) being regulator the of the commercial banks in Kenya they will take into consideration the influence of macroeconomic environment when implementing the various strategies on commercial banks

To the academicians, it acts as a source of empirical literature. Researchers wishing to conduct a study on macroeconomic environment and FP will find this study very useful when reviewing the previous studies which can form the basis of drawing various research gaps

To the investors, this study provides the insights on the investment decisions by the investors in profitable entities. Investors are interested in investing in the entities which promises higher returns and is normally affected by the macroeconomic variables for exchange rates, inflation rates and interest rates.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter presents a discussion of the previous works that are consistent with the study's purpose. The chapter also discusses the theories relating to macroeconomic variables on financial performance. Finally, a summary of the literature review and the proposed conceptual framework is provided.

2.2 Theoretical Review

Theoretical Framework reviews the theories relevant to the present study. The theoretical reviews covered are; EMH theory, the APT and the modern portfolio theory.

2.2.1 Arbitrage Pricing Theory

APT model was advanced in 1976 by Ross. The theory presumes that returns of a given instrument are affected by different economic variables by their impact on future discount rates and dividends (Subedi & Shrestha, 2015). APT relates to the concept of market portfolio concept, according to arbitrage theory persons exhibit different portfolio of investments that takes systematic risk into account. The APT is a multifactor model and most of the empirical literature argues that APT proposes better results comparatively to CAPM, since it uses multiple factors for demonstrating shared and systematic risk (Waqar & Mustabsar, 2015).

The theory established a theoretical framework that links share returns with some variables that have the potential to influence sources of income volatility (Shrestha & Subedi, 2015). APT uses macro-economic variables determine asset prices and the theory assumes that various macro-

economic variables can actually affect asset prices other than systematic risk beta (Waqar & Mustabsar, 2015).

Some of the macro-economic parameters that impact asset prices of financial instruments include: the gross national product, government internal borrowing, inflationary rates, balance of payments, investor confidence levels, prevailing levels of unemployment, changes in expected returns on securities and changes in the interest yield curve (Amarasignhe, 2015). Based on this linear correlation between the equity prices and macro-economic variables, it can be purported that macroeconomic variables impact the value of securities. Consequently, the value of the asset or security can be described as the total of the expected return and any unexpected returns on the asset (Cuthbertson, 2004).

2.2.2 Modern Portfolio theory

Markowitz (1952) coined the theory on his write up for portfolio mixture. This theory emphasised on how expected returns can be maximised by establishing portfolios that are weighed through risk levels. Markowitz concluded that institutions can construct a portfolio that would give the highest expected returns at a manageable risk level. This theory tries to maximize profits in a given portfolio risk or equally reduce the risk in a given level of anticipated returns by carefully selecting proportion of different investments (Fabozzi, Gupta, & Markowitz, 2002).

This theory identified two types of risks which investors need to be conscious of, that is, a systematic risk and unsystematic risks. Systematic risk is inherent in the volatility of the entire market or some part of it, while unsystematic risk is associated with the extent to which an individual investment is volatile. Investors are therefore instructed to combine portfolios by

guaranteeing that, specific risk carried by that specific investment in the portfolio is offset by a lower specific risk in another investment.

According to Brueggeman and Fisher (2011), macroeconomic variables generally influence the business environment within the economy. An environment of volatile economic variables including inflationary pressures and volatile exchange rates, infer that returns to businesses, firms and financial firms in particular shall fluctuate. Unstable returns therefore dominate performance of financial firms in such environments fluctuates thus affecting their growth and financial performance. Policy makers should thus be keen on macro-economic variables as they can have an effect on FP. This study is relevant to the current study as it recognizes macro-economic factors as variables that can influence performance of firms.

2.2.3 International Fisher Effect Theory

This model was proposed by Fisher (1930). It explains changes in exchange rates over time by use of market interest rates as opposed to inflation rates. This theory asserts that interest rate changes usually balance out exchange rates changes. IFE theory further contends that with arbitrage opportunities in financial markets, the real interest rates are equal across countries. Countries with high interest rates have a high inflation rate that makes their currency's value devalue over time, best explained by the real interest rate equality.

The connection between foreign exchange rates and relative interest rates is best explained by the exchange rate expectations theory. The variance between nominal interest rate of two nations best show the exchange rate. An occurrence noted by Fisher (1896) called the Fisher effect was supported by Giddy (1977) terming it to be having a close relationship with international Fisher effect. In currencies that are appreciating, Interest rates are in those currencies that are depreciating

they are high. This has been explained as move meant to offset the currency gains expected and losses, all possible if the IFE holds.

Foreign currencies that have comparatively high interest rates are likely to weaken reason being high nominal interest rates reveals the expected inflation rates as described in the Fisher effect theory (Madura, 2010). Over the long haul, an interrelation between following changes in the spot exchange rate and interest rate differentials exists but with considerable short run deviations (Hill, 2004). However, in the prediction of short-run movements in spot exchange rates the IFE fails as a predictor (Cumby & Obstfeld, 1981). According to IFE theory, in the long-run, interest rates can determine exchange rates and vice versa. Nations with higher interest rates are likely to have lower stock prices and thus lower stock returns in comparison with nations with lower interest rates. To prevent arbitrage opportunities, the currency of the nation exhibiting high interest rates is expected to devalue overtime. If IFE was to hold, investors would not benefit from exchange rate movements as the changes would be incorporated in the stock prices.

2.3 Determinants of Financial Performance

2.3.1 Corporate Governance

Sound corporate governance practices are associated with increased FP since it ensures legitimate corporations that are governed with integrity and transparency. It involves the interrelationship of the various participants in improving the corporation performance and the manner it moves forward towards the achievement of objectives. Some prior findings indicated that good corporate governance increases the share prices. It offers the final authority and complete mandatory to all stakeholders (Bruce, 2011). It ensures the interest of all the shareholders both the minority and the majority are safeguarded. It aims at promoting the efficiency, effectiveness and sustainable

corporation that can contribute to the affairs of the society through wealth creation. Responsible corporations will ensure profits are maximized for the shareholders which will in turn improve its FP (Bruce, 2011).

2.3.2 Leverage

Miller (1958) defines leverage as that debt proportion in the capital structure of the firm. A highly geared commercial bank has more debt than equity in its capital composition. Leverage can be determined by the debt ratio. The capital mix can affect the ultimate value of the commercial bank either negatively or positively. Generally, as a result of tax shield, use of debt in capital structure pushes up the leverage. High amounts of debt normally attract high-interest rate which can adversely affect the operations of a business entity which can lead to financial distress. However, prudent use of debt can increase the returns to the shareholders, it is believed that high-risk high will eventually influence its FP (Miller, 1958).

2.3. 3 Bank Size

The bank size can influence the FP negatively or positively. Large banks can access most services at reduced costs due to their purchasing power for example finance, compared to smaller banks who cannot afford the bulkiness of services. Smaller banks generate smaller revenue hence making the firm's financial position not to be stable and hence unable to access the financial resources and lower cost. By accessing the services at reduced costs, the banks are able to do risk diversification efficiently (Falope, 2004).

2.3.4 Liquidity

Liquidity estimates the degree to which assets are exchanged the market with no effect on the price of the asset (Oliver, 2010). The livelihood of any business entity depends entirely on liquidity. The

livelihood of commercial banks depends entirely on liquidity. It is the responsibility of the management to ensure that the finances are available on demand. Therefore, the management has a duty to address the following questions. How much liquid cash should be maintained, at what time will the institution be in need of this cash, how economic is it to maintain that level of liquid cash and how safe is this cash at the institution cash safe or when cash is in transit. It is expected that the FP of a more liquid bank is better compared with the one with inadequate liquid assets (Oliver, 2010).

2.4 Empirical Review

Omondi (2016) examined the impact macroeconomic environment has on the value of finance firms in Kenya covering the period from 2013 to 2016. 16 finance firms were identified as the population in this study. Macroeconomic environment was measured by the GDP, unemployment rate and exchange rate, on the contrast the value was measured by market capitalization with the aid of linear regression model using secondary data. The study concluded that macroeconomic environment significantly affected the final values of the firms. However, the study failed to take into consideration the inflation rates.

Muli (2017) examined the FP of investment firms as a consequence of macroeconomic variables in Kenya. The study was conducted from 2014 to 2017. The investment firms that were analyzed were six with secondary data being the source of data. ROA was employed as a measurement of FP with inflation rates and interest rates measuring macroeconomic variables. Regression analysis was utilized; it was evident that inflation levels that are high negatively affected the financial performance. The study was well structured.

Ombati (2015) researched on the performance of the securities exchange in Kenya under the influence of macroeconomic parameters. The focus of the study was from 2012 to 2014 with the performance being the level of trading activities and interest rates and exchange rates being the macroeconomic parameters. Secondary data was embarked on where multiple linear regression model was conducted and it was evident that macroeconomic parameters namely the depreciation of exchange rates and high levels of interest rates adversely affected the trading activities.

Nash (2015) focused on the effect interest rate regulation has on the value of banks in Pakistani in the period of study covering 2011 to 2014. In the study, 87 banks were identified for analysis. The value of the banks was measured by Tobin q. Secondary data was embarked on where multiple linear regression model was conducted and it was evident that the management of interest rates negatively affected the values of the banks since the forces of demand and supply were no longer applicable. However, the study focused on the shorter period of time.

Kleen (2014) focused on how macroeconomic variables affected the profitability of Indian firms in the manufacturing sector. The study was undertaken for a period of time covering 2010 to 2013 with the focus on 102 firms. Money supply, real GDP and treasury charge acted as the measure of macroeconomic variables with ROE measuring the profit. The study used secondary data. The study confirmed that macroeconomic variables affected the profitability of the firms.

Falope (2014) examined the impact macroeconomic environment has on the value of banks in Pakistan spanning the time frame from 2010 to 2014.41 finance firms were identified as the population in this study. Macroeconomic environment was measured by the GDP, unemployment rate and exchange rate, on the contrast the value was measured by market capitalization with the

aid of linear regression model using secondary data. The study concluded that macroeconomic environment affected the final values of the banks.

Kamar (2013) conducted an investigation on the relationship amongst returns on commercial banks in Indonesia that were not listed within the time frame 2002 and 2012 and four macroeconomic factors were chosen and they included; GDP, inflation, exchange and interest rates. As sample size of 30 banks were derived from the population of 92 banks. Secondary data was embarked on where linear regression model and the Granger Causality test were utilized in determination of the long-term relationship amongst the macroeconomic variables and the returns. The outcomes discovered that GDP, inflation rates and interest rates together with FP of commercial banks lacked a positive relationship.

Savven et al. (2013), examined how FP was impacted by chosen macro-economic variables of certain firms recorded on the Indian securities market during the period 2009 to 2012.The study sample was 8 companies. In testing for the relationship, the study utilized the multiple regression model as well as the Granger Causality test. From the outcomes of the study, it was brought to light that real exchange rates and inflation rate revealed a negative but significant influence on the returns of the chosen firms. The limitation of this study was the small sample size that was utilized.

Kamau (2013) carried out a study aimed on establishing the influence of macro-economic variables on FP. The study population was the investment firms quoted at the NSE. Data secondary in nature was obtained from the corresponding firms website. The scope of the study was three years spanning 2009 to 2011. The outcomes of the study discovered that macroeconomic variables insignificantly affectedS the FP of the firms.

Okwar (2011), investigated on the impact of macroeconomic factors on the value of commercial banks in Kenya. Data secondary in nature was obtained for a 10-year period ranging 2003 to 2013. The data was acquired from annual financials in the NSE and CBK website. In determination of the association amongst the macroeconomic factors and the commercial banks value, regression analysis was used and it revealed an insignificant impact.

2.5 Conceptual Framework

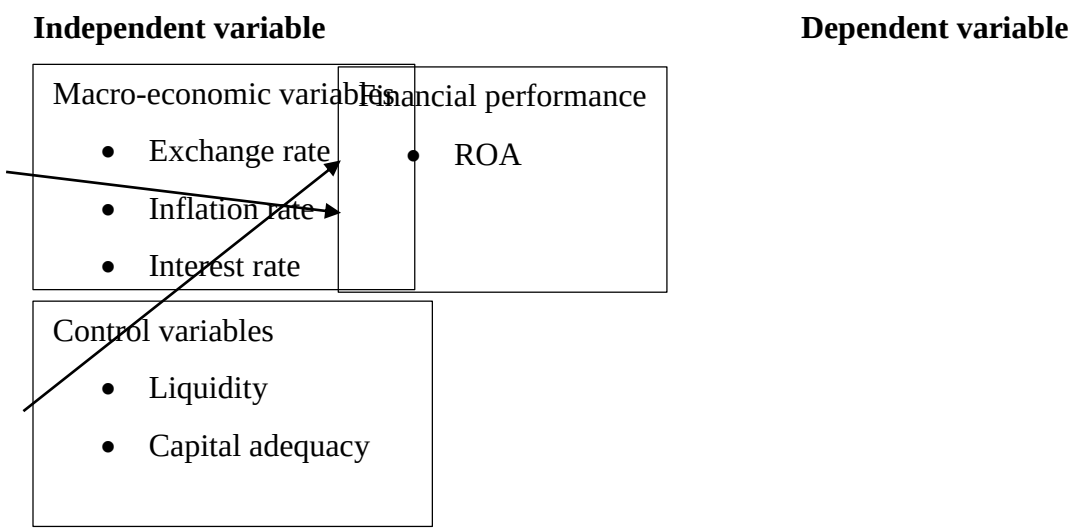

Figure 2.1: Conceptual Framework

2.6 Summary of the Literature Review

In the literature review, the theoretical framework pertinent to this study were discussed which included the APT, IFE theory and the modern portfolio theory. Empirical evidence was also reviewd and it included Kamar (2013), Kioko (2017), Falope (2013), Wafula (2016), Kamau (2013), Okwar (2011), and Nash (2015). From the above aforementioned literature, it was discovered that none of the studies concentrate of how macroeconomic variables influences FP of commercial banks and therefore providing a justification for filling the research gap.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The methodology to guide this study was outlined in this section. It extensively looked at the research design of the study and the study population methods that were employed during collecting of data, and lastly the analysis on the obtained data.

3.2. Research Design

A research design is the framework which constitutes the techniques and the methods which a researcher chooses to conglomerate with its different constituents of research in a logical way which is aimed at efficiently handling the research problem. It gives the insights on how to carry out the research as per the particular methodology (Mugenda, 2005). Descriptive research design was employed because it vividly gives a description of the characteristics of the subject without influencing it in any manner. Regression analysis was employed as well.

3.3 Population

Population is a set of items or events which are similar and the researcher is interested because of some experiment or question (Mugenda, 2005). It can also imply a group of existing items of interest by the researcher. The population of interest in this research was the forty one commercial banks as at December 2018 as shown in appendix one.

3.4 Data Collection

Data collection involves an exercise of acquiring and measuring the data on the variables which are targeted by the researcher to aid in the answering the relevant questions and the evaluation of the outcomes (Mugenda, 2005). Secondary data was utilized and was sourced from the CMA, CBK and NSE. Data was obtained for a five year period from 2014 to 2018.

3.5 Data Analysis

The procedure of arranging and bringing order and sense to the bulky data obtained is referred to as data analysis (Connaway & Powell, 2010). It involves coding, sorting and interpreting the raw data. Descriptive statistics which is critical in the analysis of the data to assist in describing or summarizing data in a meaningful manner based on the mean values was employed.

3.5.1 Analytical model

The study utilized the below multiple linear regression model;

$$Y = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \beta_4 x_4 + \beta_5 x_5 + e$$

β_0 is the constant term, e is the error term, $\beta_1, \beta_2, \beta_3, \beta_4 and \beta_5$ are the coefficients of independent variables.

Y is financial performance as represented by ROA

x_1 is the rate of inflation which is equivalent to CPI

x_2 is the rate of interest which is equivalent to lending rate

x_3 is the capital adequacy which is equivalent to the proportion of capital to assets

x_4 is the liquidity and is equivalent to the proportion of loans to deposits

x_5 is the rate of exchange and is equivalent to the proportion of Kenya shilling to the US dollar

3.5.2 Test of significance

The study employed a t -test and an F-test at 95% confidence level which aimed at assessing the model strength and the different macroeconomic variables as well as how they relate with the FP of commercial banks.

CHAPTER FOUR

DATA ANALYSIS, FINDINGS AND INTERPRETATION

4.1 Introduction

This chapter entails analysis the collected data. In this study secondary data was utilized in the analysis. Descriptive statistics as well as the inferential statistics that consisted of regression analysis, correlation and ANOVA was done.

4.2 Descriptive Statistics

The independent variables included Interest rate, inflation rates, liquidity, exchange rates and capital adequacy while ROA was the dependent variable. Table 4.1 shown below demonstrates the descriptive statistic for each of the variables.

Table 4.1: Descriptive Statistics Analysis

	N	Minimum	Maximum	Mean	Std. Deviation
Inflation rate	205	4.69	7.56	6.34	0.96
Liquidity	205	0.01	1.82	0.53	0.35
Capital adequacy	205	0.38	0.78	0.57	0.09
Return on assets	205	-0.02	0.07	0.03	0.02
Exchange rate	205	88.51	103.70	99.24	5.86
Interest rate	205	13.4	23.65	19.15	3.11

The maximum, minimum, mean as well as standard deviation of inflation was 4.69, 7.56, 6.34 and 0.96 respectively. Since the standard deviation was less than 1, it implied very small deviations in inflation rate. Liquidity had a maximum value of 1.82, minimum value of 0.02, mean 0.53 and standard deviation of 0.35 indicating moderate variability. The minimum value of capital adequacy was 0.38, the maximum value was 0.78, the mean value was 0.57 and the standard deviation was 0.09 implying slight variability. The minimum value of exchange rates was 88.51, maximum number was 103.70 and the standard deviation was 5.86 which was an indication of high

variability. Interest rate had maximum and minimum values of 23.65 and 13.4, mean and standard deviation values were 19.15 and 3.11. ROA had a standard deviation of 0.02, its mean, maximum and minimum values were -0.02, 0.03 and 0.07 correspondingly.

4.4 Correlation Analysis

Table 4.2: Correlation Analysis

	Inflation rate	**Liquidity**	**Capital adequacy**	**Exchange rate**	**Interest rate**	**ROA**
Inflation rate	1					
Liquidity	-0.060	1				
Capital adequacy	0.097	0.002	1			
Exchange rate	-0.195	0.021	0.015	1		
Interest rate	0.670	-0.034	0.113	-0.501	1	
ROA	0.134	-0.198	0.029	0.114	0.143	1

*. Correlation is significant at the 0.05 level (2-tailed).

The study outcomes show that, liquidity has a negative relationship with ROA. The correlation coefficient of liquidity was -0.198 with a p-value of 0.395 showing the relationship was insignificant. It was further confirmed existence of a positive but insignificant relationship between inflation rates and ROA since correlation coefficient and p-value were 0.134 and 0.055 respectively. Capital adequacy had a positive relationship with FP since the correlation coefficient was 0.029 and the relationship was insignificant because the p-value was 0.680 that exceeds 0.05. Exchange rate had a positive and significant relationship with ROA. This was from the correlation coefficient of 0.114 and a p-value of 0.003. Finally, interest rates had a positive and significant relationship with ROA because the correlation coefficient was 0.143 and a p-value of 0.04.

4.4 Regression Analysis

Table 4.3: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.251	0.063	0.040	0.01532

The value of 0.251 represents the correlation coefficient with a positive relationship existing between the study variables. Value of the The adjusted R^2 was 0.040 this implies that 4.0% of exchange rates, interest rates, inflation rate, liquidity and capital adequacy influence were justifiable using the model.

Table 4.4: Summary of One Way ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	0.004	5	0.001	2.681	0.023
	Residual	0.062	199	0.000		
	Total	0.066	204			

At 5% significance level, the F statistic value was 2.681 and the statistic was confirmed to be significant because the P value under Sign column was below 0.05 and the implication thereof is that the model on overall is significant.

Table 4.5: Regression Coefficients

		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	0.039	0.030		1.330	0.185
	Inflation rate	0.001	0.002	0.074	0.785	0.433
	Liquidity	-0.010	0.004	-0.190	-2.764	0.006
	Capital adequacy	0.004	0.015	0.018	0.254	0.799
	Exchange rate	0.002	0.000	-0.071	-0.872	0.384
	Interest rate	0.018	0.001	0.049	0.452	0.652

The regression analysis shows how independent variables affect the dependent variable. The constant variable indicates that; the value of FP would be 0.039 if all the other factors were zero. The study showed that liquidity had an inverse relationship with financial performance. It implied that an increment in liquidity with a unit will translate to a reduction in FP by 0.010. Inflation rate had a positive influence on FP which implies that increment in inflation rates with a unit results to an increment in FP by 0.001. Additionally, the study confirmed that capital adequacy and interest rates were positively related to FP and an increment in interest rate with a unit will translate to a rise in FP by 0.018. Increment in capital adequacy with a unit will translate to a rise in FP by 0.004. Exchange rates discovered to exhibit a positive relationship with financial performance. Increase in exchange rates will translate to a rise in FP by 0.002.

It was further confirmed that, inflation rate had a standardized beta coefficient of was 0.074 implying that rate of inflation has a moderate effect on the FP. The standardized beta coefficient of liquidity was -0.190 that implied liquidity has a strong effect on FP. The standardized beta coefficient of capital adequacy was 0.018 signifying a weak impact of capital adequacy on FP. The standardized beta coefficient of exchange rates was -0.071 that implied exchange rates has a strong effect on FP. The standardized beta coefficient of interest rates was 0.452 which implication was that interest rates have a weak effect on FP.

4.5 Interpretation and Discussion of Results

According to the descriptive statistics, exchange rates increased steadily over the study period recording the maximum value of 103.7 and the minimum value of 88.51 and a relatively large variation was confirmed in terms of their growth. Over the same studied period, the FP of the companies of the commercial banks showed a great variation where some banks reported high returns on assets while others low returns on assets. The inflation rates fluctuated throughout the years under study with the highest value of 7.56 and lowest value of 4.69. It implies that there was no a definite relationship between the number of years and interest rate, inflation rates, liquidity, exchange rates, capital adequacy and ROA.

From the regression analysis, it was discovered that liquidity had a negative relationship with returns on assets. Interest rate, inflation rates, exchange rates and capital adequacy had a positive relationship with returns on assets. The research also established a number of macroeconomic factors that affect FP and they included exchange rates, interest rates, capital adequacy, liquidity and inflation and the intercept for all these factors was found to be 0.039 for the years analyzed. This study discovered that inflation rates, exchange rates, interest rates and capital adequacy positively impacts FP. Liquidity was observed to have a negative influence on FP.

The adjusted R square value was 0.040. This infers the five independent factors inputs 4.0% on the FP and the rest 96% is attributed to factors not incorporated. Regression analysis discovered that interest rate, inflation rates, exchange rates and capital adequacy had a positive influence on FP. Generally, all macroeconomic factors influence FP of commercial banks in Kenya. This was evident from the analysis of the variables studied.

This research found out that the coefficient of inflation rate was 0.001 meaning that inflation positively influences FP. This suggested that as inflation rises, the FP increases. Liquidity is negatively related with the FP this is evident from the value of the coefficient of -0.010. This implied that as liquidity increase, the FP decreases. Capital adequacy has a positive effect on FP since the coefficient was 0.004. This suggests that increment in capital adequacy leads to an increment in FP. Exchange rate has a positive effect on FP since the coefficient was 0.002. This means that increment in exchange rate results to an increment in FP. Finally, interest rate demonstrated a positive relation with FP because the coefficient of interest rate was 0.018 and this means that an increment in interest rate triggers an increment in FP.

In conclusion, macroeconomic variables affect the FP of the commercial banks in Kenya. This study concurs with the study by Falope (2015) who concluded that macroeconomic variables affected the performance of commercial banks in Pakistan. A study by Nash (2015) on the effect interest rate regulation on the value of banks in Pakistani also concluded that interest rate regulation greatly affected the value of commercial banks and finally the study concurs the findings by Muli (2017) who concluded that inflation rates affect the FP of investment firms.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

In this section, a summarization of findings from the preceding section is provided, conclusions are derived, limitation that were encountered on the overall study explained. Additionally, this chapter gives recommendation to decision maker as well as the policy makers Finally, the researcher offers suggestions on areas that can be covered by other scholars in further research studies.

5.2 Summary of the Findings

The objective of the study was ascertaining the effect of macroeconomic variables on the FP of commercial banks in Kenya. Descriptive statistics was employed and it summarized all the variables in aspects of the maximum, minimum, mean together with standard deviation values of the six variables analyzed namely interest rate, inflation rates, liquidity, exchange rates capital adequacy and return on assets. Inflation rate posted a slight deviation over the period analyzed and there was evident of mixed outcomes in terms of inflation values. Liquidity of the commercial banks was confirmed to vary greatly among the 41 commercial banks analyzed. Capital adequacy of the commercial banks was confirmed to vary slightly over the period analyzed. Exchange rate was confirmed to have high variation over the five-year period covered and finally interest rate posted mixed results and finally settling on a constant value due to interest rate capping.

It was evident that some commercial banks experienced tough economic conditions as a consequence of the changes in the macroeconomic environment which reduced their returns and eventually their FP. Inflation rates were observed to be directly related with FP. However, the

relationship was not critical. Inflation increases competitiveness, thus increasing the economic growth that consequently translates to better FP of commercial banks. At the point of low rate of inflation, the economy, greater speculation is obvious. At the same time if the government implements various legislative laws on the inflation rates through the central banks they are likely to affect positively the FP.

The study also discovered that a positive relationship exist between the exchange rate and FP. Banks are likely to save money by getting a better exchange rate. According to the results, the liquidity also affected FP positively. The study also established that a positive significant relationship exist between capital adequacy and the returns on assets. Interest rate was confirmed to have a positive influence on the ROA that means that as interest rates rises, FP increases.

In the determination of the significance of the overall model, ANOVA was employed. Based on regression statistics analysis, the study arrived at a conclusion that the five variables which include exchange rates, interest rates, liquidity, capital adequacy and inflation rates influence the FP of the commercial banks. The five independent variables managed to justify their impact on the FP of the banks up to 4.0% which implication was that other factors not incorporated were attributed the rest of the impact signifying that the model was significant.

5.3 Conclusions and Recommendations

From the study, a weak negative relationship was found to exist between liquidity and the return on assets, the correlation coefficient was found to be -0.198 which was also not significant because the P value of 0.395 exceeded 0.05. An insignificant positive relationship exists between inflation rates and FP, the correlation coefficient was 0.134 and the relationship was not significant because the p-value exceeded 0.055. A positive relationship exists between capital adequacy and FP,

because the correlation coefficient was 0.029. The relationship was weak and insignificant since P value was 0.680 that exceeded 0.05. Interest rate was confirmed to have a positive and insignificant relationship with ROA because the correlation coefficient was 0.088 and a p-value of 0.178. Exchange rates had a positive and significant relationship with FP with a correlation coefficient of 0.114.

From the outcome of this research, it concludes that macroeconomic variables affect the FP of commercial banks in Kenya. The reason being that most of the variables studied the existence of a relationship amongst macroeconomic variables and ROA. This is in agreement with Nash (2015) arrived to a conclusion that macroeconomic variables influenced the performance of manufacturing firms in India

From the outcome of this research, the study recommends the setting aside of more finances which will facilitate the collection and analysis of data. This will ensure the financial challenges in research are dealt with. This will also guarantee the completion of the research in time.

The study recommends the allocation of enough time for the entire research excise. Sufficient time will ensure step by step research operations and process without interruptions. In so doing, the research will be conclusive and objective unlike when working under pressure to meet the deadlines.

This study recommends the inclusion of the qualitative aspects that are probable to influence the FP to be included in the model of analysis. This will ensure both the qualitative and quantitative factors are considered in the analysis to ensure the results are more conclusive.

5.4 Limitations of the Study

Time constraint, considering that this study relied on data from the multiple sources which included the CBK Capital Markets Authority and the individual commercial banks, more time was needed for the completes exercise of collecting and analyzing data. But notwithstanding the unavailability of enough time, it was well utilized to attained the intended study objective.

The entire excise needed more financing which ranged from collection and analysis of data, writing materials and printing of the research work that necessitated utmost sacrifice so as to attain the desired objectives. Though the researcher was financially constrained, eventually the complete research process was a success.

Aspects which are qualitative in nature were not captured by the secondary data which are also able to affect the FP. Such qualitative aspects include good corporate governance practices and good customer relations.

This study was conducted over a five-year period due to the limited time that was available. Sufficient time could have enabled the conduction of this study for an extended period for example ten years.

The choice of the control variables was limited in this study. Only liquidity and capital adequacy were employed as the control variable. Control variables plays a critical role of ensuring the other variables being tested are better understood since they remain unchanged in the analysis.

5.5 Suggestions for Further Studies

To begin with, the study makes a suggestion that a similar study be done on listed companies on their perspective concerning the effect of macroeconomic factors on their FP and capture data on more independent variables. Primary data should also be utilized since it helps in capturing attitudes of employees towards implementation of key financial decisions.

A survey can be conducted to investigate how FP of non-listed companies and listed companies is affected by macroeconomic variables. This will help in the comparison of the FPs of the listed companies and non-listed companies.

The limitations of the study also provide possible areas for further research, which include a similar study in future whose objective would be to reaffirm these findings for comparison purposes.

Opportunity for further study is also available, which include carrying out a comparative study by focusing on finance companies, non-listed and listed companies at NSE on how macroeconomic variables affect their FP.

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APPENDIX 1: LIST OF COMMERCIAL BANKS IN KENYA

1. African Banking Corporation
2. Bank of Africa
3. Bank of Baroda
4. Bank of India
5. Barclays Bank
6. Stanbic Bank
7. SBM Bank
8. Citibank
9. Commercial Bank of Africa
10. Consolidated Bank
11. Co-operative Bank
12. Credit Bank
13. Development Bank
14. Diamond Trust Bank
15. Dubai Islamic Bank
16. Ecobank
17. Equity Bank
18. Guaranty Trust Bank
19. Family Bank
20. Fidelity Commercial Bank
21. Housing Finance
22. First Community Bank
23. Mayfair Bank
24. Guardian Bank
25. Gulf African Bank
26. Habib Bank Ltd
27. I&M Bank
28. Jamii Bora Bank
29. Kenya Commercial Bank
30. National Bank of Kenya
31. Middle East Bank
32. NIC Bank
33. Oriental Commercial Bank
34. Paramount Universal Bank
35. Prime Bank
36. Standard Chartered Bank
37. Transnational Bank
38. UBA Kenya Bank
39. Victoria Commercial Bank
40. Sidian Bank
41. Spire Bank

APPENDIX II: DATA

BANK	YEAR	INFLATION RATE	LIQUIDITY	CAPITAL ADEQUACY	ROA	EXCHANGE RATE	INTEREST RATE
KCB BANK	2014	6.49	0.24	0.56	0.05	88.51	23.54
	2015	6.86	0.30	0.60	0.03	97.56	23.06
	2016	6.13	0.02	0.77	0.05	102.95	22.45
	2017	7.56	0.07	0.43	0.04	103.50	19.23
	2018	4.69	0.01	0.55	0.05	103.70	13.5
EQUITY BANK	2014	6.49	0.02	0.64	0.07	88.51	20.12
	2015	6.86	0.03	0.51	0.05	97.56	19.56
	2016	6.13	0.02	0.72	0.03	102.95	22.45
	2017	7.56	0.03	0.48	0.05	103.50	18.45
	2018	4.69	0.04	0.69	0.06	103.70	13.5
BARCLAYS	2014	6.49	0.04	0.58	0.05	88.51	19.05
	2015	6.86	0.05	0.55	0.03	97.56	21.67
	2016	6.13	0.06	0.65	0.03	102.95	19.07
	2017	7.56	1.25	0.49	0.01	103.50	21.56
	2018	4.69	0.04	0.61	0.04	103.70	13.5
STANDARD CHARTERED BANK	2014	6.49	0.50	0.73	0.06	88.51	20.42
	2015	6.86	0.80	0.64	0.01	97.56	21.83
	2016	6.13	0.78	0.57	0.01	102.95	20.18
	2017	7.56	0.35	0.67	0.02	103.50	19.5
	2018	4.69	0.76	0.45	0.03	103.70	13.5
COOPERATIVE BANK	2014	6.49	0.57	0.70	0.04	88.51	21.34
	2015	6.86	0.46	0.49	0.02	97.56	20.5
	2016	6.13	0.87	0.53	0.01	102.95	19.45
	2017	7.56	0.07	0.75	0.02	103.50	18.56
	2018	4.69	0.66	0.72	0.04	103.70	13.5
BANK OF AFRICA	2014	6.49	0.84	0.62	0.01	88.51	21.76
	2015	6.86	0.75	0.54	0.01	97.56	20.55
	2016	6.13	0.82	0.78	0.02	102.95	21.54
	2017	7.56	0.69	0.68	0.03	103.50	19.5
	2018	4.69	0.67	0.45	0.01	103.70	13.5
FAMILY BANK	2014	6.49	0.35	0.58	0.04	88.51	19.76
	2015	6.86	0.06	0.56	0.05	97.56	20.56
	2016	6.13	0.61	0.54	0.03	102.95	21.68

	2017	7.56	0.87	0.49	0.03	103.50	18.65
	2018	4.69	0.87	0.51	-0.02	103.70	13.5
STANBIC BANK	2014	6.49	0.89	0.53	0.04	88.51	20.54
	2015	6.86	1.00	0.42	0.02	97.56	19.87
	2016	6.13	0.99	0.58	0.03	102.95	21.76
	2017	7.56	0.09	0.60	0.05	103.50	19.86
	2018	4.69	1.76	0.54	0.02	103.70	13.5
I&M BANK	2014	6.49	0.85	0.55	0.06	88.51	20.74
	2015	6.86	0.83	0.54	0.02	97.56	19.01
	2016	6.13	0.79	0.58	0.03	102.95	22.56
	2017	7.56	0.87	0.47	0.02	103.50	23.18
	2018	4.69	0.98	0.76	0.04	103.70	13.5
GURDIAN BANK	2014	6.49	1.82	0.58	0.03	88.51	22.05
	2015	6.86	0.87	0.45	0.03	97.56	20.18
	2016	6.13	0.89	0.62	0.03	102.95	22.71
	2017	7.56	0.08	0.55	0.04	103.50	23.65
	2018	4.69	0.77	0.72	0.01	103.70	13.5
BANK OF BARODA	2014	6.49	0.06	0.52	0.04	88.51	19.39
	2015	6.86	0.09	0.56	0.02	97.56	20.17
	2016	6.13	0.07	0.45	0.04	102.95	19.04
	2017	7.56	0.91	0.59	0.04	103.50	18.65
	2018	4.69	0.14	0.54	0.05	103.70	13.4
BANK OF INDIA	2014	6.49	0.89	0.65	0.04	88.51	19.56
	2015	6.86	1.25	0.51	0.03	97.56	20.02
	2016	6.13	0.99	0.49	0.03	102.95	21.42
	2017	7.56	0.09	0.44	0.01	103.50	19.16
	2018	4.69	0.76	0.55	0.01	103.70	13.5
AFRICA BANKING CORPORATION	2014	6.49	0.85	0.67	0.02	88.51	20.54
	2015	6.86	0.83	0.61	0.02	97.56	19.87
	2016	6.13	0.79	0.63	0.03	102.95	21.76
	2017	7.56	0.87	0.51	0.04	103.50	19.86
	2018	4.69	0.98	0.65	0.01	103.70	13.5
JAMII BORA BANK	2014	6.49	1.82	0.67	0.01	88.51	20.45
	2015	6.86	0.87	0.65	0.02	97.56	19.6
	2016	6.13	0.89	0.42	0.04	102.95	18.55
	2017	7.56	0.08	0.67	0.05	103.50	19.5

	2018	4.69	0.77	0.45	0.01	103.70	13.5
TRANSNATIONAL BANK	2014	6.49	0.06	0.56	0.01	88.51	22.52
	2015	6.86	0.09	0.63	0.03	97.56	21.7
	2016	6.13	0.07	0.57	0.02	102.95	22.3
	2017	7.56	0.91	0.53	0.04	103.50	21.67
	2018	4.69	0.14	0.62	0.01	103.70	13.5
CREDIT BANK	2014	6.49	0.24	0.60	-0.01	88.51	21.22
	2015	6.86	0.02	0.74	0.02	97.56	19.62
	2016	6.13	0.02	0.64	0.04	102.95	18.55
	2017	7.56	0.17	0.67	0.02	103.50	19.56
	2018	4.69	0.01	0.45	0.01	103.70	13.5
DEVELOPMENT BANK	2014	6.49	0.02	0.57	0.02	88.51	23.44
	2015	6.86	0.03	0.64	0.01	97.56	22.51
	2016	6.13	0.03	0.45	0.03	102.95	21.67
	2017	7.56	0.03	0.76	0.02	103.50	20.43
	2018	4.69	0.04	0.62	0.03	103.70	13.5
PRIME BANK	2014	6.49	0.04	0.45	0.04	88.51	18.59
	2015	6.86	0.05	0.56	0.01	97.56	19.33
	2016	6.13	1.06	0.70	0.01	102.95	20.41
	2017	7.56	1.25	0.64	0.02	103.50	18.9
	2018	4.69	0.04	0.47	0.03	103.70	13.5
DTB	2014	6.49	0.50	0.53	0.05	88.51	22.34
	2015	6.86	0.80	0.53	0.02	97.56	22.08
	2016	6.13	0.78	0.62	0.03	102.95	21.58
	2017	7.56	0.35	0.53	0.01	103.50	20.5
	2018	4.69	0.76	0.46	0.03	103.70	13.5
FIRST COMMUNITY BANK	2014	6.49	0.57	0.54	0.01	88.51	18.33
	2015	6.86	0.46	0.55	0.02	97.56	18.97
	2016	6.13	0.87	0.58	0.03	102.95	19.33
	2017	7.56	0.17	0.68	0.02	103.50	19.4
	2018	4.69	1.66	0.43	0.01	103.70	13.5
SBM BANK	2014	6.49	0.38	0.38	0.02	88.51	23.54
	2015	6.86	0.57	0.57	0.01	97.56	23.06
	2016	6.13	0.60	0.60	0.03	102.95	22.45
	2017	7.56	0.50	0.50	0.01	103.5	19.23
	2018	4.69	0.45	0.45	0.04	103.7	13.5
CITI BANK	2014	6.49	0.85	0.55	0.02	88.51	23.54
	2015	6.86	0.63	0.63	0.05	97.56	23.06

	2016	6.13	0.68	0.68	-0.01	102.95	22.45
	2017	7.56	0.64	0.64	0.06	103.5	19.23
	2018	4.69	0.64	0.46	0.03	103.7	13.5
UNITED BANK OF AFRICA	2014	6.49	0.36	0.61	0.04	88.51	23.54
	2015	6.86	0.83	0.66	0.03	97.56	23.06
	2016	6.13	0.73	0.73	0.02	102.95	22.45
	2017	7.56	0.31	0.48	0.05	103.5	19.23
	2018	4.69	0.40	0.45	0.01	103.7	13.5
VICTORIA COMMERCIAL BANK	2014	6.49	0.47	0.47	0.04	88.51	23.54
	2015	6.86	0.31	0.58	0.05	97.56	23.06
	2016	6.13	0.65	0.65	0.06	102.95	22.45
	2017	7.56	0.54	0.54	0.04	103.5	19.23
	2018	4.69	0.47	0.47	-0.01	103.7	13.5
SIDIAN BANK	2014	6.49	0.41	0.41	0.02	88.51	23.54
	2015	6.86	0.79	0.47	0.07	97.56	23.06
	2016	6.13	0.62	0.62	0.04	102.95	22.45
	2017	7.56	0.89	0.51	0.05	103.5	19.23
	2018	4.69	0.77	0.55	-0.02	103.7	13.5
SPIRE BANK	2014	6.49	0.81	0.61	0.02	88.51	23.54
	2015	6.86	0.54	0.54	0.01	97.56	23.06
	2016	6.13	0.41	0.55	0.02	102.95	22.45
	2017	7.56	0.41	0.41	0.02	103.5	19.23
	2018	4.69	0.38	0.67	0.01	103.7	13.5
ORIENTAL COMMERCIAL BANK	2014	6.49	0.53	0.53	0.04	88.51	23.54
	2015	6.86	0.19	0.49	0.05	97.56	23.06
	2016	6.13	0.62	0.62	0.02	102.95	22.45
	2017	7.56	0.53	0.53	0.02	103.5	19.23
	2018	4.69	1.14	0.47	0.05	103.7	13.5
PARAMOUNT COMMERCIAL BANK	2014	6.49	0.19	0.59	0.04	88.51	23.54
	2015	6.86	0.55	0.55	0.01	97.56	23.06
	2016	6.13	0.58	0.58	0.04	102.95	22.45
	2017	7.56	0.68	0.68	0.03	103.5	19.23
	2018	4.69	0.43	0.43	-0.01	103.7	13.5
MIDDLE EAST BANK	2014	6.49	0.57	0.57	0.03	88.51	23.54
	2015	6.86	0.62	0.62	0.01	97.56	23.06

	2016	6.13	0.27	0.48	0.04	102.95	22.45
	2017	7.56	0.38	0.54	0.01	103.5	19.23
	2018	4.69	0.78	0.65	0.04	103.7	13.5
NIC BANK	2014	6.49	0.72	0.57	0.02	88.51	23.54
	2015	6.86	0.51	0.51	0.02	97.56	23.06
	2016	6.13	0.64	0.64	0.01	102.95	22.45
	2017	7.56	0.55	0.55	0.02	103.5	19.23
	2018	4.69	0.39	0.65	0.03	103.7	13.5
NATIONAL BANK OF KENYA	2014	6.49	0.39	0.62	0.01	88.51	23.54
	2015	6.86	0.61	0.61	0.03	97.56	23.06
	2016	6.13	0.65	0.65	0.01	102.95	22.45
	2017	7.56	0.73	0.73	0.04	103.5	19.23
	2018	4.69	0.39	0.47	0.01	103.7	13.5
HABIB BANK	2014	6.49	0.45	0.45	0.04	88.51	23.54
	2015	6.86	0.31	0.53	0.06	97.56	23.06
	2016	6.13	0.19	0.61	0.05	102.95	22.45
	2017	7.56	0.32	0.54	-0.01	103.5	19.23
	2018	4.69	0.47	0.67	0.03	103.7	13.5
GULF AFRICAN BANK	2014	6.49	0.74	0.54	0.03	88.51	23.54
	2015	6.86	0.46	0.46	0.04	97.56	23.06
	2016	6.13	0.65	0.65	0.03	102.95	22.45
	2017	7.56	0.61	0.61	0.02	103.5	19.23
	2018	4.69	0.63	0.63	0.05	103.7	13.5
MAYFAIR BANK	2014	6.49	0.63	0.63	0.04	88.51	23.54
	2015	6.86	0.85	0.55	0.04	97.56	23.06
	2016	6.13	0.29	0.47	0.05	102.95	22.45
	2017	7.56	0.75	0.62	0.06	103.5	19.23
	2018	4.69	0.53	0.53	0.04	103.7	13.5
FIDELITY COMMERCIAL BANK	2014	6.49	0.31	0.65	0.02	88.51	23.54
	2015	6.86	0.15	0.49	0.01	97.56	23.06
	2016	6.13	0.28	0.67	0.05	102.95	22.45
	2017	7.56	0.57	0.57	0.04	103.5	19.23
	2018	4.69	0.54	0.54	0.02	103.7	13.5
GUARANTY TRUST BANK	2014	6.49	0.68	0.68	0.01	88.51	23.54
	2015	6.86	0.36	0.52	0.02	97.56	23.06
	2016	6.13	0.96	0.57	0.02	102.95	22.45

	2017	7.56	0.58	0.58	0.07	103.5	19.23
	2018	4.69	0.86	0.58	0.02	103.7	13.5
DUBAI ISLAMIC BANK	2014	6.49	0.86	0.53	0.03	88.51	23.54
	2015	6.86	0.28	0.51	0.04	97.56	23.06
	2016	6.13	0.59	0.59	0.03	102.95	22.45
	2017	7.56	0.77	0.77	0.01	103.5	19.23
	2018	4.69	0.41	0.45	0.02	103.7	13.5
CONSOLIDATED BANK	2014	6.49	0.58	0.58	0.05	88.51	23.54
	2015	6.86	0.27	0.65	0.04	97.56	23.06
	2016	6.13	0.53	0.53	0.01	102.95	22.45
	2017	7.56	0.27	0.57	0.04	103.5	19.23
	2018	4.69	0.45	0.45	0.03	103.7	13.5
COMMERCIAL BANK OF AFRICA	2014	6.49	0.45	0.45	0.05	88.51	23.54
	2015	6.86	0.24	0.55	0.03	97.56	23.06
	2016	6.13	0.67	0.67	0.01	102.95	22.45
	2017	7.56	0.71	0.71	0.03	103.5	19.23
	2018	4.69	0.04	0.53	0.01	103.7	13.5
HOUSING FINANCE	2014	6.49	0.18	0.68	0.04	88.51	23.54
	2015	6.86	0.39	0.57	0.05	97.56	23.06
	2016	6.13	0.62	0.62	0.02	102.95	22.45
	2017	7.56	0.78	0.58	0.01	103.5	19.23
	2018	4.69	0.54	0.54	0.02	103.7	13.5
ECO BANK	2014	6.49	0.38	0.58	0.04	88.51	23.54
	2015	6.86	0.57	0.68	0.01	97.56	23.06
	2016	6.13	0.60	0.43	0.03	102.95	22.45
	2017	7.56	0.50	0.57	0.01	103.5	19.23
	2018	4.69	0.45	0.62	0.04	103.7	13.5