



INFLATION RATE AND RETURN ON EQUITY OF COMMERCIAL BANKS IN NIGERIA

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ABSTRACT

Commercial banks are very important institutions in the Nigerian financial system that assists in executing socioeconomic activities undertaken by government, businesses and individuals. Commercial banks serve as a means through which wealth is circulated from surplus economic units to the deficit units. Nigeria exhibits a rising currency value with a consistently low inflation rate, as the purchasing power rises relative to other currencies. Inflation has an inverse effect on banks' profitability since the rise in inflation increases total costs incurred by the bank leading to a fall in the profits. Profits react to sales volumes that are influenced by the cost levels determined by trading companies and pricing policies. The uncertainty of inflation affects the price system, efficiency and resources available to the bank and therefore, additional funds are sourced internally and externally to meet the rising costs. The objective of this study was to assess the impact of inflation rates on the return on equity of commercial banks in Nigeria between 1999 to 2018. The study's target population constituted all the 22 commercial banks operating in Nigeria as at 30th June, 2019. The study obtained data from secondary source which entailed data on the macro-economic environment facing the commercial banks and their financial performance/profitability records. In analysing the data, Unit root test, Co-integration and Autoregressive Distributed Lag (ARDL) were adopted in the study and it was found that inflation rates have no significant positive effect on the return on equity of commercial banks in Nigeria with the calculated F-value for the relationship between Return on Equity and Inflation Rate of 0.6120 and its probability value is 0.6020. Therefore, the Study recommended that Government



through the Central Bank of Nigeria should come up with effective measures and policies that will help control and reduced the inflation rate between the naira and other foreign currencies in the exchange market.

Keywords: Inflation rate, purchasing power, Profitability, Return on equity, Commercial Banks

1. INTRODUCTION

Return on Equity (ROE) which determines the extent of efficiency of the bank's management in using shareholders' investments is one of the metrics used in measuring the profitability of Commercial Banks in Nigeria (Naeem, Baloch, & Khan, 2017). Notably, Commercial Banks in Nigeria do not only deal with the nation's local currency known as the Naira, but also transact businesses in foreign currencies such as the United States Dollar, Pounds and Euro etc., thereby exposing them to foreign exchange risk which can result to instability in profit margin, expected future cash flows and significant losses (Rani & Zergaw, 2017). Exchange rate is generally defined as the price for which the currency of a country is exchanged with the currency of another country. In the light of this definition, two components of exchange rate are identified: the domestic currency and a foreign currency (Zubair, 2013), it further stated that factors influencing exchange rate include inflation rates, interest rates, trade balance, internal harmony, political stability, high degree of transparency in the conduct of leaders and administrators, general state of the economy and quality of governance.

According to Khrawish (2011), Return on Equity (ROE) is a key profitability ratio that investors use to measure the amount of a company's income that is returned as shareholders' equity. This metric reveals how effectively a corporation is generating profit from the money that investors have put into the business (by buying its stock). However, inflation reduces the supply and increases the demand of loanable funds, causing banks' interest rates to rise. The interest rates thus reflect future inflation, and the stock market tends to move inversely with interest rates (Almumani, 2017). Inflation is said to be the persistent rise in the general level of prices or a decline in the value of money over a period. Some economists often see inflation as an increase in the amount of money in circulation (Rogers & Wang, 2015). The determinants of exchange rate include differentials in inflation rate, differentials in interest rate,



current account deficits, public debts and terms of trade, political stability and economic performance.

It is not gainsaying to assert that a country exhibits a rising currency value with a consistently low inflation rate, as the purchasing power rises relative to other currencies. Also, differentials in inflation rate are usually accompanied with higher interest rates. Frequent changes in interest rate are also a major determinant of volatility of exchange rate, as foreign capital is induced by higher interest rates, which also cause the exchange rate to increase (Aliyu, 2009). Furthermore, a large debt causes increase in inflation rate and with high inflation, debt is serviced and ultimately paid off in the future with cheaper real foreign currency. Besides, a country's terms of trade would be favorably improved if export prices rise by a greater rate than that of its imports. As a country's terms of trade increases, there will be greater demand for its exports, which, in turn, leads to revenue increase from exports and ultimately induces greater demand for the country's currency (indicating an increase in its currency value). Commercial banks play a crucial intermediary role of receiving customers' savings and channeling them to lucrative investment ventures (Richard, 2014). They assist in the channeling of funds from those with surplus to those in deficit for investment purposes, thereby, boosting the Nation's Gross Domestic Product (GDP) and serving as a catalyst for economic growth.

However, to effectively carry out this intermediary function, sustainable profitability is a necessary condition as losses can trigger financial tragedy because commercial banks in Nigeria are involved in the buying and selling of other currencies of the world at foreign exchange rates which fluctuates on weekly, daily and even on hourly basis, thereby exposing them to foreign exchange risk resulting to instability in profit margin, expected future cash flows as well as significant losses (Gachua, 2017). Therefore, for the banks to remain competitive and thrive, they are necessitated to evaluate their external factors, which include foreign exchange market variability or fluctuations (Frederick, 2015). The main objective of the study was to examine the impact of inflation rate on return on equity of commercial banks in Nigeria, the study hypothesized that there is no significant relationship between inflation rate and return on equity of commercial banks in Nigeria. It is hoped that the findings of this study would assist the management and staff of commercial banks with the necessary information about inflation rate and its impact on ROE to ensure the profitability of their banks which is a necessary condition for a strong banking industry. This study investigated the impact of inflation rate on the ROE of commercial banks in Nigeria between 1999 to 2018.



2. LITERATURE REVIEW

Conceptual Framework

Profitability of Commercial Banks

Bank profitability determinants are usually explained in the form of internal and external variables. The internal variables are those that determine bank's management decisions and specifically affect policy objectives, such as liquidity risk, credit risk, bank size, return on equity (ROE), return on assets (ROA), net interest margin (NIM), financial leverage and expense management. The external variables are those that emanate from industry related factors and macroeconomic influences, which includes competition and the level of concentration, the level of unemployment, inflation rate and real per capita income. In the case of Nigeria, exchange rate may pose a macroeconomic influence on bank profitability because of the variation in the exchange rate of the domestic currency to the US dollar and other major currencies (Almumani, 2017). The important of bank profitability of the micro and macro level, led researchers, academic, bank managers and bank regulator authentic to grow wide interest in the determinants of banks profitability (Menicucci & Paolucci, 2006)

Return on Equity

Return on equity determines the extent of efficiency of the bank's management in using shareholders' investments (Ling, Fayman, & Michael, 2014). It is a financial ratio that refers to how much profit a company earned compared to the total amount of shareholders' equity invested or found on the statement of financial position. Return on Equity is what the shareholders look in return for their investment (Olweny & Shipho, 2011). Return on equity is the ratio of net income to total equity (Farah, 2014).

It is also defined as Profit Before Taxation (PBT) divided by shareholders' fund. It shows how effectively a bank's management is using shareholders' funds. It also measures the rate of return flowing to the bank's shareholders and the net benefit the shareholders receive from investing their capital in the bank i.e. placing their fund at risk in the hope of earning an appropriate profit (Murthy & Sree, 2013). In other words, Return on equity is a measure of the profitability of a business in relation to the equity, also known as net assets or assets minus liabilities. ROE is a measure of how well a company uses investments to generate earnings growth.



Inflation

Inflation simply refers to a sustained rise in the general level of prices of goods and services in an economy over a period of time. According to Rogers and Wang (2015), inflation is a rise in the general level of prices of goods and services in an economy over a period of time. Inflation can also be described as erosion in the purchasing power of money – a loss of real value in the internal medium of exchange and unit of account in the economy. When the price level rises, each unit of currency buys fewer goods and services. One of the main measures of price inflation is the inflation rate, the annualized percentage change in a general price index (normally the Consumer Price Index) over time (Anbar & Alper, 2011). It is important to note that Inflation can have positive and negative effects on an economy. Negative effects of inflation include loss in stability in the real value of money and other monetary items over time; uncertainty about future inflation may discourage investment and savings, and high inflation may lead to shortages of goods if consumers begin hoarding out of concern that prices will increase in the future. On the other hand, positive effects include a mitigation of economic recessions, and debt relief by reducing the real level of debt (Richard, 2014). Here, Inflation is defined as an economic phenomenon which reduces the purchasing power of each unit of currency, thereby, leading to increase in the prices of goods and services over time. It is a situation of rising prices in the economy and an increase in the cost of living.

Impact of Inflation on Return on Equity of Commercial Banks

The return on equity (ROE) of banks, a common measure of profitability, is a hotly debated topic among banks and regulators. It is typically defined as net income divided by the book value of equity. Therefore, a bank's ROE can be changed in two ways: through a change in net income or by operating with more or less equity. The return on equity (ROE) is a key indicator to assess the banking sector's attractiveness for investors and is calculated by dividing net income by total shareholders' equity (Abor, 2015). Inflation affects bank performance as it transfers money from savers and investors to debtors. Therefore, the opportunity cost of holding currency in the future may discourage savings that will in turn affect the performance of banks. The amount of savings that would be available at the disposal of the banks will decrease as savers will prefer to invest in non-monetary capital projects to avoid losses expected from the declining purchasing power of money. Another effect of inflation is that the purchasing power of currency becomes less valuable with the passage of time and that affect the bank exchange rate regime which worsen the trade



performance of banks and further discourages export which leads to deficit bank balance and fall in the exchange rate. Inflation usually disrupts business planning of banks. Budget becomes difficult because of the uncertainties created by the phenomenon in both prices of services and cost of inputs that reduced planned investment spending. It worsens the loans policy which affects the performance of banks as a result of withdrawals by depositors from the banking system. This reduces bank resources thereby decreasing a large proportion of their profitability. In other words, it reduces the in and out flow of loans and advances since banks may not want to lend except at a higher interest rate which discourages borrowing by the deficit spending unit. Inflation also affects the equity/shareholding performance of bank which reduces their equity capital thereby affecting the long-run efficiency of the banks. This is because the real share prices of banks are inversely related to both anticipated and unanticipated inflation.

Anbar et al (2011) conducted a study on “Bank Specific and Macroeconomic Determinants of Commercial Banks’ Profitability: Empirical evidence from Turkey”. Using a balanced panel data set, the result showed that there is a positive relationship between inflation rate and money growth rate. Al-Hashimi (2017) examines the causes of inflation volatility as the rate of increase in aggregate purchasing power in the economy that exceeds the rate of increase in the physical volume of goods and services available to be purchased. The effects of inflation can be substantial and undermines the stability of the financial system and the ability of the regulator to control the solvency of financial intermediaries. Nwokoji (2013) noted that variations in bank profitability can be strongly explained by the level of inflation. An important indirect influence on commercial banks lies in the impact of inflation on their customers and the consequent changes in the demand for different kinds of financial services. Unexpected rises of inflation cause cash flow difficulties for borrowers which can lead to premature termination of loan arrangements and precipitate loan losses. Furthermore, inflation is one of the main routes through which it is possible to affect the operations and margins of banks through interest rates.

Tan and Floros (2012) examined the effect of inflation on bank profitability, the result exhibits that “there is a positive relationship between bank profitability, cost efficiency, banking sector development, stock market development and inflation in China. Ejoh and Iwara (2014) using data from four industrialized countries indicated differential impact of inflation on output growth in different countries studied. Dawood (2014) found direct correlation between inflation and decrease of deposits



and loan given capacities of banks. Empirical literature has investigated the effect of inflation on profitability of commercial banks, however, the findings of the relationship are mixed even though, a greater proportion of the findings revealed a negative relationship

Empirical Review

Ayodele (2014) evaluated empirically the impact of foreign exchange risk on the Nigerian economy. The study investigated how economic indices such as exchange rate and inflation rate affects changes in Gross Domestic Product (GDP) in Nigeria. The study used Secondary data collected from Annual Reports of Central Bank of Nigeria (CBN), Nigerian Stock Exchange (NSE), and Nigeria Securities and Exchange Commission (SEC) which were analyzed through the multiple regression analysis using the Ordinary Least Squares (OLS) method. The result showed that the two factors –exchange rate and inflation rate- impact significantly on the Gross Domestic Product and economic growth of Nigeria. Exchange rate has a negative impact on the GDP because as it increases, the economic growth is negatively affected, while inflation rate exerts a positive impact on GDP, indicating that firms are more willing to produce when inflation rate is high and vice versa. The outcome of the research was that the government should make Nigerian economic climate investment friendly by restoring security of lives and property, infrastructural development and improvement of local production in order to reduce the pressure on the dollar and that this would go a long way to boost the exchange rate in favour of the naira and hence improve the Gross Domestic Product of the Country.

Bergen (2010) analysed the ten (10) year relationship between inflation and return on equity as a measure of profitability of commercial banks in Kenya. The analysis of the data was done through regression of inflation against the commercial banks' return on equity for the period under analysis. The findings indicated that there was an inverse relationship between inflation and return on equity and therefore, the study concluded that as inflation decreased, the profits for the same period increased. However, it is important to note that this study did not clearly identify the relationship between inflation rates and how they influence profitability since there are other factors such as the negative impact of inflation that discourages investment and saving influences growth and performance. Bourke (2012) studied the impact of inflation on the yields of companies in North America and observed that a rise in inflation results to a corresponding rise in Consumer Price Index (CPI) due to the rising interest rates resulting to a fall in the price of shares for the listed companies.



Since the overall goal of a company is wealth maximization, with the fall in the share price, there was a fall in the returns for the companies. The study was conducted between 1998 and 2013 and the researcher used the GARCH model that highlighted the effect of inflation on firms' yields. The findings indicated that inflation has an adverse effect on profitability and it was concluded that stock returns are low when there is high inflation since investments are moved from stock exchange into business ventures that are not influenced by inflation. However, the study did not show a clear effect of inflation on the return on equity which ultimately influence the profitability of the firms.

Pitia and Lado (2015) sought to test for the relationship between exchange rate and inflation in South Sudan for the period August 2011 to November 2014. Using Ordinary Least Square technique, the study revealed that there exists a unidirectional causality from exchange rate to CPI without feedback. This means depreciation of South Sudanese currency is detrimental to the economy of South Sudan. Although CPI failed to cause changes in exchange rate, there is no way to conclude with greater confidence that the results are true. The effect of the pressure of an increase in price level on exchange rate could have been from the response of monetary authorities in bridging the gap between the price level and the purchasing power of people in the economy. Dada and Oyeranti (2012) examined the effect of exchange rate volatility on economic growth in Nigeria using the annual data for the period of 1970 to 2009. Using Vector Auto-regression (VAR) technique, the studied revealed that economic growth is negatively related to exchange rate in the long run while in the short run, a positive relationship exist between the two variables in Nigeria.

Purchasing Power Parity Theory

This study adopted Purchasing Power Parity (PPP) Theory which can be traced back to the Salamanca School in 16th-century Spain, its modern use as a theory of exchange rate determination begins with the work of Gustav Cassel (1918), who proposed PPP as a means of adjusting pre-World War I exchange rates or parities for countries intending to return to the gold standard system after hostilities ended. Some adjustment was necessary because countries that left the gold standard in 1914 experienced significantly different rates of inflation during and after the war (Majok, 2015). Purchasing power parity (PPP) theory states that exchange rates between currencies are in equilibrium when their purchasing power is the same in each of the two countries. This means that the exchange rate between two countries should equal the ratio of the two countries' price level of a fixed basket of goods and services.



When a country's domestic price level is increasing (i.e., a country experiences inflation), that country's exchange rate must be depreciated in order to return to PPP. According to (Reid and Joshua, 2005), the purchasing power parity (PPP) exchange rate is the exchange rate between two currencies that would equate the two relevant national price levels if expressed in a common currency at that rate, so that the purchasing power of a unit of one currency would be the same in both economies. According to Taiwo and Adesola (2013) "PPP theory suggest that currencies are valued for the goods they can purchase and, in arbitrage equilibrium, the exchange rate between two countries' currencies should equal the ratio of their price levels, of which a testable implication is that real exchange rate should display mean reversion, at least in the long-run. The theory is linked to the arbitrage hypothesis that states that if two homogeneous goods are traded at different prices in different countries, this arbitrage opportunity would be utilized, which leads to convergence of the deviations from Purchasing Power Parity towards equilibrium in the absence of arbitrage costs. There are two forms of PPP, absolute and relative. The absolute PPP, also known as the Law of One Price, states that a commodity costs the same regardless of what currency is used to purchase it or where it is selling (Reid & Joshua, 2005). Due to these limitations in the absolute PPP, another form of PPP has evolved, the relative PPP which acknowledges market imperfections such as transport costs, tariffs and quotas. Relative PPP defines what determines change in exchange rate over time, rather than what determines absolute level of the exchange rate. It states that the exchange rate change is determined by the difference in the inflation rates of the two countries (Ross, 2008).

According to relative PPP, any differential exchange rate to the one propounded by the theory is the real appreciation or real depreciation of one currency over the other (Stacy & Williamson, 2010). This theory is relevant to this study as it explains the value of one currency in terms of another country's currency in terms of the basket of goods and services it can purchase with reference to the demand and supply. This theory argues that in the equilibrium exchange rate is one that ensures that the value exchanged can purchase the same basket of goods and services from either of the countries involved.

3. METHODOLOGY

The study was carried out in Nigeria, a federal republic comprising thirty-six states and one Federal Capital Territory, Abuja. The country lies between Latitudes 120°N and 140°N, with a land mass area of 923,768km (356,669 Sq. miles). This study



employed the use of secondary source of data. The secondary data were sourced from the statistical bulletins of the Central Bank of Nigeria (CBN), the Nigerian Stock Exchange (NSE), the Nigerian Securities and Exchange Commission (SEC) and the consolidated financial statements of the commercial banks from 1999 to 2018. In this study, all the 22 commercial banks operating in Nigeria as at June 30, 2019 made up the population. The data adopted for this study is secondary data. The data assessed included return on assets (ROA) of the banks obtained from their financial statements and the statistical bulletin of the Central Bank of Nigeria (CBN) for twenty years, 1999 to 2018. Data on the foreign exchange rate fluctuations (EXR) and inflation rates (INF) were also collected from the Central Bank of Nigeria. Data generated was analysed using descriptive statistics and various procedures for measurement of variables such as unit root test and co-integration. Autoregressive Distributed Lag (ARDL) using Eviews-10, a statistical package used mainly for time-series oriented econometric analysis was also used in the analysis of data.

4. DATA ANALYSIS, RESULTS AND DISCUSSIONS

Table 1
ROE Model: Short run ARDL (1) Result

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.661832	1.313967	0.503690	0.6218
D(ROE(-1))	-0.090861	0.252063	-0.360468	0.7235
D(INF(-1))	-0.175341	0.203308	-0.862443	0.4020
R-squared	0.603352	Mean dependent var		0.439444
Adjusted R-squared	0.561535	S.D. dependent var		5.316087
S.E. of regression	5.477208	Akaike info criterion		6.390080
Sum squared resid	449.9971	Schwarz criterion		6.538475
Log likelihood	-54.51072	Hannan-Quinn criter.		6.410541
F-statistic	0.507274	Durbin-Watson stat		2.076752
Prob(F-statistic)	0.612103			

Source: Authors Computation, 2019 (Eviews-10)

Notes: ***, ** and * indicate statistical significance at 10%, 5% and 1% levels, respectively

From table 1, we can see the short run ARDL Model result and their coefficient values. The short run dynamics was conducted because there was no long run relationship in the model. This implies that there is no long-run co-integration between ROE and INF. The coefficient of determination (R-square), which was used

to measure the goodness of fit of the estimated model, indicates that the model is reasonably fit in prediction. It showed that 60.33 percent changes in ROE were due to INF while 39.67percent unaccounted variations was captured by the white noise error term. It showed that INF has an impact prediction on ROE within the period under review.

Return on Equity and Inflation Rate

H₀: There is no significant relationship between rise in inflation rate and return on equity of commercial banks in Nigeria.

Table 2
Results of Wald Test on Return on Equity and Inflation Rate

Wald Test: Equation: Untitled			
Test Statistic	Value	Df	Probability
F-statistic	0.507449	(2, 15)	0.6120
Chi-square	1.014897	2	0.6020

Source: Authors Computation, 2019 (Eviews-10)

The Wald-test in Table 4.7 indicated that the calculated F-value for the relationship between Return on Equity and Inflation Rate is 0.6120 and its probability value is 0.6020. Since the probability value is greater than 0.05 at 5% level of significance, it thus falls in the acceptance region; hence, the null hypothesis (**H₀**) was accepted. The result thus shows that Inflation rate has no significant impact on return on equity of commercial banks in Nigeria.

Discussion of findings

The study analysis further indicated that there is no significant relationship between Return on Equity (ROE) and the inflation rate in Nigeria. This study finding implies that the inflationary rate in the country within the study period which has been constantly on the increase has an adverse effect on the return on equity of commercial banks in Nigeria. During high inflationary period the savings become less and very few large loans are sanctioned to reduce the default of risk.



These findings are also similar to the study of findings Bergen (2010) analysed the ten (10) year relationship between inflation and return on equity as a measure of profitability of commercial banks in Kenya. The analysis of the data was done through regression of inflation against the commercial banks' return on equity for the period under analysis. The findings indicated that there was an inverse relationship between inflation and return on equity and therefore, the study concluded that as inflation decreased, the profits for the same period increased.

However, it is important to note that this study did not clearly identify the relationship between inflation rates and how they influence profitability since there are other factors such as the negative impact of inflation that discourages investment and saving influences growth and performance.

5. CONCLUSION AND RECOMMENDATION

Commercial Banks in Nigeria play an important role in promoting economic development through financial intermediation by assisting in channeling of funds from those with surplus to those in deficits for investment purposes, thereby, boosting the Nation's Gross Domestic Product (GDP) and serving as a catalyst for economic growth and development. It is important to note that Inflation can have positive and negative effects on an economy. Negative effects of inflation include loss in stability in the real value of money and other monetary items over time; uncertainty about future inflation may discourage investment and savings, and high inflation may lead to shortages of goods if consumers begin hoarding out of concern that prices will increase in the future. On the other hand, positive effects include a mitigation of economic recessions, and debt relief by reducing the real level of debt. The study concluded that Inflation rate has no significant impact on return on equity of commercial banks in Nigeria. Based on the findings the study recommended that Government through the Central Bank of Nigeria should come up with effective measures and policies that will help control and reduce the inflation rate between the naira and other foreign currencies in the exchange market.

REFERENCES

- Abor, J., (2015). Managing Foreign Exchange Risk among Ghanaian Firms. University of Ghana Business School, Legon, Ghana. *The Journal of Risk Finance Vol. 6 No. 4, 2015, pp. 306-318.*



- Ahamed, M. M. (2017). *Asset Quality, non-interest Income, and Bank Profitability: Evidence from Indian banks*. *Economic Modelling*, 63, 1–14.
- Ahmed, L., (2015). The Effect of Foreign Exchange Exposure on the Financial Performance of Commercial Banks in Kenya. *International Journal of Scientific and Research Publications*.
- Al-Hashimi, A. (2017). *Determinants of Bank Spreads in Sub-Saharan Africa*. IMF Draft. Working Paper, 05/06.
- Almumani, M. A. (2017). Impact of Managerial factors on Commercial Banks Profitability: Empirical evidence from Jordan. *International journal of Academic Research in Accounting, Finance and management Sciences*, 3(3):298-310.
- Anbar, A., & Alper, D. (2011). *Bank Specific and Macroeconomic Determinants of Commercial Bank Profitability: Empirical evidence from Turkey*.
- Ayodele, O. J., (2014). Impact of Foreign Exchange Risk on the Nigerian Economy: An Empirical Study. *International Journal of Novel Research in Marketing Management and Economics Vol. 2, Issue 3, pp: (91-99)*.
- Bergen, J. V. (2010). *Factors that Influence Exchange Rates*. Investopedia. Retrieved from <http://www.investopedia.com/articles/basics/04/050704>.
- Bourke, P. (2012). Concentration and other Determinants of Bank Profitability in Europe, North America and Australia. *Journal of Banking and Finance*, 13, 65-79.
- Dada, E. A., & Oyeranti, O.A. (2012). Exchange rate and macroeconomic aggregates in Nigeria. *Journal of Economic and Sustainable Development*, 3(2), 93-101.
- Dawood, U. (2014). Factors Impacting Profitability of Commercial Banks in Pakistan for the Period of (2009-2012). *International Journal of Scientific and Research Publications, Vol.4, Issue 3, 1-7*
- Frederick, N. K. (2015). Factors Affecting Performance of Commercial Banks in Uganda-A Case for Domestic Commercial Banks. *International Review of Business Research Papers*, 11(1), 95-113.



- Gachua, N.F. (2017). *The Effect of Foreign Exchange Exposure on a Firm's Financial Performance*. Unpublished MBA Project, KCA University.
- Gustav, C. (1918). Purchasing Power Parity: Doctrine in the context of his views on international economic policy coordination. *The European Journal of History of Economic Thought*. 20(6) 1101-1121
- Khrawish, H. A. (2011). Determinants of Commercial Banks Performance: Evidence from Jordan. *International Research Journal of Finance and Economics*. Zarqa University, 5(5), 19-45.
- Ling, T. H., Fayman, A., & Michael, C. K. (2014). Bank Profitability: The Impact of Foreign Currency Fluctuations on the USA. *Journal of Applied Business and Economics*, 16(2).
- Majok, L. (2015). *Effects of Exchange Rate Fluctuations on Financial Performance of Commercial Banks in Kenya*. Unpublished MBA Project, University of Nairobi.
- Menicucci, E., & Paolucci, G. (2016). The Determinants of Bank Profitability: Empirical evidence from European Banking Sector. *Journal of Financial Reporting and Accounting*, 14(1), 86–115. doi:10.1108/JFRA-05-2015-0060
- Murthy, Y., & Sree, R. (2013). *A Study on Financial Ratios of major Commercial Banks*. Research Studies, College of Banking & Financial Studies, Sultanate of Oman.
- Naeem, M., Baloch, Q. B., & Khan, A. W. (2017). Factors affecting Banks' Profitability in Pakistan. *International Journal of Business Studies Review*, 2(2), 33–49.
- Olweny, T., Shiphoo, T. M. (2011). Effects of Banking Sectoral Factors on the Profitability of Commercial Banks in Kenya. *Economics and Finance Review*, 1(5), 1-30.
- Pitia, E., & Lado, Z. (2015). Test of Relationship between Exchange Rate and Inflation in South Sudan: Granger-Causality Approach. *Economics*. 4(2), 34-40.



- Rani, D. M., S., & Zergaw, L. N. (2017). Bank Specific, Industry Specific and Macroeconomic Determinants of Bank Profitability in Ethiopia. *International Journal of Advanced Research in Management and Social Sciences*, 6(3), 74–96.
- Reid, W., & Joshua, D. (2005) *The theory and Practise of International Financial Management*. Prentice Hall of India.
- Richard A. W. (2014). How do Banks Create Money? *Journal of International Review of Financial Analysis*, Volume 36.
- Rogers, J. H., & Wang, P. (2015). Real exchange rate movements in high inflation countries. Presented to the Board of Governors of Federal Reserve System. *International Finance Discussion Paper, No 501*.
- Stacy, O., M. & Williamson, R. G. (2010). *Exchange Rate Exposure, Use of Foreign Currency Derivatives and Corporate Performance: A case of selected financial institutions in South Africa*, University of South Africa Business School. South Africa.
- Taiwo O., & Adesola O. A., (2013). Exchange Rate Volatility and Bank Performance in Nigeria. *Asian Economic and Financial Review*, 2013, 3(2):178-185
- Tan, Y., & Floros, C. (2012). Bank profitability and inflation: *The case of China*. *Journal of Economics Studies*, 39, 675–696.