FINANCIAL REPRESSION POLICIES AND PERFORMANCE OF SELECTED COMMERCIAL BANKS IN KENYA

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Abstract

Financial repression still has a major effect on the performance of commercial banks in Kenya. From 1992 the country has had financial liberalization policies, however in the recent past the country adopted financial repression policies like the Interest rate capping law. This research discusses how the Kenyan government has used financially repressive policies since 2010 to 2018 and how it affects the commercial banking sector in Kenya. The specific objectives of this study were to ascertain the effects of interest rates control, domestic government debt, capital controls and reserve and liquidity ratio on the performance of commercial banks in Kenya. The study explored the moderating effect of competition. Bank's profitability will be considered as dependent variable in this study while interest rate ceiling, domestic government debt, capital controls and reserve and liquidity ratio were considered independent variables, with Competition as the moderator in the study. The study was anchored on three theories namely financial repression theory, public finance theory and public policy theory. The study targeted 36 licensed commercial banks that have been consistently in operation from the year 2010 to 2018 out of the 43 registered ones, leaving out 7 commercial banks which are either acquired by other banks, under receivership or statutory management. The objective of this study was to establish the effects of financial repression policies on the performance of selected commercial banks in Kenya. Secondary data capturing the performance of the commercial banks was obtained from published audited financial statements, CBK publications and journals, National Bureau of Statistics and International Financial Statistics covering the period from 2010 to 2018. The analysis was done in descriptive statistics, checking the measure of central tendency, measure of dispersion and measure of peakedness. The data was analyzed using inferential statistics, Pearson correlation and the static panel regression model using Stata version 15. The data was subjected to diagnostic tests to test for any violation of regression analysis. The study found that interest rate controls positively and significantly influence performance; government debt was seen to have inverse relationship with performance of commercial banks in Kenya; capital control has direct relationship with performance of commercial banks in Kenya; and reserve ratios had positive influence on performance of commercial banks in Kenya. The study therefore recommends Central bank of Kenya to develop policies that will ensure that interest rate spreads are maintained at its lowest; this can be achieved by removing interest rate barriers which will in turn spur growth for commercial banks. Also, management of commercial banks to ensure that they maintain their implicit interest rate at its minimum in order to lower their operation cost and as a result increases their profits.

Keywords: Financial repression, Capital control, Capital reserve, Commercial banks, Competition, Financial liberations, Financial performance, Government Debt, Interest rate ceiling.

Introduction

There is high volatility and uncertainty in banks business environment and therefore the worry about financial performance in regard to profitability, net income and level of non-performing loans. Due to increase global competition and globalization, banks financial performance has gained immense attention. The result of the situation is that commercial banks have had to minimize their costs, restructure their operations to attract more customers while retaining existing customers and investing heavily in technology for efficiency. Globally, the role of banking industry is very crucial, especially with financial allocation. It is very important mainly because it plays the role of being the intermediary between surplus and deficit units; it shifts funds to deficit from where it is in surplus (Ongore & Kusa, 2013). For the purpose of performing and sustaining its functions, financial wellbeing of the banking industry is the vital for economy.

The stagnated or dismal performance of economies have been attributed to financial repression with various writers advocating for financial liberalization policies aimed at non-control of interest rates, abolition of direct credit allocation, privatization of commercial banks, unrestricted entities into the banking industry and reinforcement of prudent regulation of financial institutions (Reinhart, 2012). Murat (2017) points out that financial repression policy is some of the widely discussed policies in economic and finance literature dating back to 1970s and 1980s particularly in emerging economies where financial repression is used to allocate scarce financial resources and provide capital to preferred sectors such as infrastructure and health. Reinhart and Rogoff (2011) believe that although financial repression is inefficient in allocating resources, it enables governments to adapt quickly to the changing environment and is thus good for adaptive efficiency.

Financial repression is considered to be the collection of government legal restrictions, policies, regulations, taxes, distortions, qualitative and quantitative restrictions as well as controls that the government puts in place inhibiting financial intermediary's full capacity operations, (Xun, 2013). Financial repression is therefore considered to be the restrictions that the government puts in place inhibiting full capacity functioning of financial intermediaries. Financial repression characterizes a "tax-like" technique of government's financial deficit. Governments that lack even income-tax rates due to corruption or advanced variation in ability of the government to confirm income in various social clusters find this technique more appealing (Rösl & Tödter, 2015). Actually, Xun (2013) suggests that financial repression in developing countries allows governments to tax individual savings at the same rate. In most cases they force captive buyers (usually commercial banks) to maintain the government debt at interest rate below the yields of the market.

Erina and Lace (2013) defined financial performance as the measure of how an organization has performed in a particular financial year. Tailab (2014) argue that shareholders, management, suppliers, creditors, customers etc. benefit from information on banks performance because it guides them in decision making on whether to continue investing and being part of the organization or they have to exit. Therefore, banks good performance relates with increased profitability,

growth of deposits, capital as well as assets. Erina and Lace (2013) state that there are various performance measurement tools for commercial banks, which include computing rations like Return on Assets (ROA) and Return on Equity (ROE). ROA will help to calculate total profits obtained from assets of the bank after expenses and taxes have been excluded. When there is a high ROA, it means good financial health of a firm thus better performance as well as effective use of assets. On the other hand, low ROA suggests that assets that are at bank's disposal haven't been effectively used. ROE indicates rate of return to owners of the company who are also the shareholders. It is therefore considered the most important ratio in relation to the others. According to Alexandru *et al.* (2008) ROE is considered to be a good determinant of performance efficiency because it indicates the exact business entity that is obtained from the money shareholders invest.

Mwongeli (2012) studied impact of regulations on Kenya's commercial banks financial performance and found negative association between regulations and performance. The study surveyed all the 43 commercial banks in the period between 2010 and 2015. Mwega (2014) observed that Kenya does not have very strict financial sector regulations and concluded in the study that regulations in Kenyan financial sector resulted in strengthened banking institutions over the past ten years in terms of products offered, stability, customer service and profitability. Gitau & Kosimbei (2015) studied impact financial repression has on growth of the Kenyan economy. They concluded that growth of the economy and rates of interest high bank reserves and broad money are positively correlated. Conversely high reserve requirements had insignificant relationship with economic growth. Mwega (2014) investigated the potential trade-off between regulations and stability of Kenya's financial sector focusing on commercial banks. Qualitative technique focusing on policy analysis was adopted in this study. Conclusions drawn were that reforms in banking industry led to a stronger banking industry over the past 10 years.

Munywoki (2017) sought to identify effects of the CBK regulations on financial performance of banks listed at the Nairobi Stock Exchange (NSE). Only 11 banks were listed and therefore the study focused on them. It also focused on regulations and did not consider the repressive policies that are often applied by the national government; it found that regulations and stability of commercial banks were positively related. Sporta (2018) studied impacts of financial distress factors on Kenya's' commercial banks performance. The study showed significant relationship between liquidity, leverage, operational efficiency, asset quality and capital adequacy as factors affecting banks financial performance. These are mainly internal factors to a firm that generally affect financial performance of the firm.

All the players in banking industry are struggling to multiply profitability and extension of the market share. In Kenya, the nature of the banking sector is oligopolistic. Total licensed commercial banks are 42, operating in the country yet a large share of the market is dominated by six (6) large banks. These six banks are largely perceived as stable and account for 50% of the market share in terms of customer deposits and loans (Ochieng, 2019). As a result, the five banks have ability to

attract large deposits at low deposit rates and lend the same money to borrowers at higher rates thereby creating high interest spreads.

Figure 1: Interest Rate (%)

	2017							2018					
	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
91-day Treasury bill rate	8.42	8.22	8.17	8.13	8.09	8.01	8.01	8.04	8.03	8.02	8.00	7.96	7.87
182-day Treasury bill rate	10.38	10.32	10.32	10.32	10.33	10.47	10.53	10.64	10.42	10.39	10.30	10.26	9.99
Interbank rate	3.99	6.99	8.10	5.52	7.85	8.86	7.27	6.21	5.12	4.90	5.38	4.70	5.03
Repo rate	4.13	8.29	8.90	7.24	0.00	9.21	7.75	8.75	7.63	0.00	6.75	7.44	6.16
Reverse Repo rate	10.05	10.25	10.29	10.12	10.11	10.10	10.10	10.02	10.05	9.95	9.64	9.60	9.56
Central Bank Rate (CBR)	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	9.50	9.50	9.50	9.50
Average lending rate (1)	**13.66**	**13.70**	**13.65**	**13.69**	**13.71**	**13.68**	**13.64**	**13.65**	**13.68**	**13.49**	**13.24**	**13.25**	**13.22**
Overdraft rate	13.38	13.65	13.66	13.65	13.68	13.60	13.54	13.61	13.75	13.40	13.28	13.30	13.23
1-5years	13.80	13.78	13.86	13.87	13.88	13.86	13.83	13.84	13.83	13.67	13.38	13.40	13.39
Over 5years	13.64	13.62	13.39	13.51	13.51	13.51	13.46	13.45	13.45	13.31	13.03	13.03	13.00
Average deposit rate (2)	**7.61**	**7.72**	**7.67**	**7.66**	**8.01**	**8.07**	**8.22**	**8.26**	**8.25**	**8.16**	**8.17**	**8.08**	**8.04**
0-3months	7.76	7.83	7.80	7.71	8.17	8.19	8.43	8.52	8.50	8.48	8.46	8.53	8.39
Over 3 months deposit	8.04	8.05	8.13	8.02	8.17	8.35	8.39	8.35	8.39	8.26	8.34	8.01	8.14
Savings deposits	5.63	6.40	5.94	6.43	6.92	6.93	6.91	6.97	7.01	6.85	6.72	6.64	6.60
Spread (1-2)	**6.06**	**5.98**	**5.98**	**6.04**	**5.70**	**5.61**	**5.42**	**5.39**	**5.42**	**5.33**	**5.07**	**5.17**	**5.18**

Source: Central Bank of Kenya

The commercial banks have registered declining profitability in the year from 2014 to 2018. According to the Kenya Bankers Report (2019), commercial banks profitability rose from 14.8% to 15.42% from 2014 to 2015 but declined in 2016 and 2017. CBK (2019) report indicates that most commercial banks recorded decreased profits as a result of reduced interest rates after the introduction of interest rate capping law in 2016. In the year 2016 commercial banks posted Kes.85.35 billion in profits which dropped by 14% to Kes.69.4 billion in the year 2017. Owing to decrease in general expenses in the year 2018, commercial banks registered improved profitability of Kes.76.2 billion representing a growth of 9.8%. After the government moved into cap interest rates in September 2016, it resulted into significantly decreased interest rate and spreads for commercial banks. The rates on bank loans and advances fell from a high of 13.66% in 2017 to 13.22% in the year ending June 2018. Similarly, the interest rate spread declined from 6.06% in 2017 to a low of 5.18% in 2018. On the other hand, this has resulted in increase of deposit rates from 7.61% in 2017 to 8.04% in June 2018 (CBK 2019).

Generally, CBK (2019) further notes that the ratio of non-performing loans (NPLs) to gross loans increased significantly in the past four years. The loans borrowed from commercial banks and other non-bank financial institutions recorded a significant growth in the number of loan defaulters across all sectors of the economy. The total non-performing loans increased by 20.9% as at June 2018 in the trade sector while building and construction sector came second in the list of non-performing loan at an increase of 20.6% by June 2018. The upsurge in non-performing loans is attributed to delayed payments by both the private sector and the government thus causing delayed loan repayments which further slowed down business growth in the banking sector.

Figure 2: Banking Industry's Total Income

	2014	2015	2016	2017	2018
Tier 1 Banks	13.80%	13.68%	14.11%	-0.66%	5.45%
Tier 2 Banks	17.64%	20.17%	11.84%	-11.02%	1.14%
Tier 3 Banks	16.04%	15.03%	4.91%	-9.90%	11.04%
Industry Aggregate	14.84%	15.42%	12.94%	-4.79%	3.30%

Source: Kenya Bankers Association report 2019

According to Kenya Bankers report 2019 in 2014 the aggregate total income in the banking sector grew by 14.84% with the biggest contribution coming from Tier 2 and Tier 3 banks at 17.64% and 16.04% respectively. The same trend was seen in 2015 when the total income growth rose to 15.42%. In the year 2016 the industry growth declined to 12.54% and declining further in the year 2017 when the industry however recorded a negative growth of -4.79% despite the good run from 2014 to 2016 with Tier 2 banks registering the biggest decline in growth at -11.02%. In the year 2018 a total income growth of 3.30% was recorded in the banking industry (Kenya Bankers Association, 2019).

Competition is the process by which firms strive to outdo each other or to win something of value and is usually sophisticated and complex. Competition is noted to thrive where resources are scarce (Ling& Lyhorn, 2012). The nature and level of the competition in a market segment or sector is therefore defined by the scarcity of resources. A firm will therefore strive to create an advantage position in order to gain the most in a situation where competition exists, bringing in the concept of competitive advantage. Competition thus helps a firm to sharpen its tactics as well as its capacity to be innovative within the market that it operates. Johnson and Scholes (2008) argue that the role of management in strategic management is to critically analyze the organization in terms of its strengths, weaknesses, opportunities and threats. Building and sustaining competitive advantage is therefore the main concern for strategic management. A firm with competitive advantage will easily succeed in growing its revenues and expanding the market share.

Statement of the Problem

In Kenya, commercial bank performance has been fluctuating due to the financial repression policies that have been put in place by the government. For instance, in 2015 the CBK issued a moratorium on licensing of new commercial banks in the country to allow for existing banks to review their models and consolidate their operations. Banks performance is affected by financial repression because it affects efficient capital allocation (Rojas, 2011). When the financial sector is repressed, savings and investments are discouraged because of the low rates of return compared with what could have been achieved in a competitive environment. In situations like those, the

functioning of financial intermediaries is not to the full capacity and therefore savings are not channelled effectively into investments, therefore, banks performance is affected.

In Kenya, commercial banks performance isn't impressive. In the year 2016/2017 commercial banks posted a decrease in profitability by 14% from 85.35 billion to 69.4 billion. The rates on bank loans and advances also fell from 13.66% in 2017 to 13.22% in the year ending June 2018.In terms of aggregate total income, it grew from 14.84% in 2014 to 15.42% in 2015. However, in 2016 and 2017 the total income declined with 2017 registering a negative growth of -4.79%. This negative trend was reversed in year 2018 with a total income growth of 3.30%. The overall growth of 3.30% in 2018 is however a pointer to a struggling sector as this presents a very small growth below the double-digit growth registered in the period between 2014 to 2016 (Kenya Bankers Association, 2019). In 2015, two banks (Imperial Bank and Dubai Bank) were placed under liquidation by the CBK ostensibly to protect depositors 'interests, creditors and general public (CBK, 2019).

According to recent studies in the international arena such as Xu and Gui (2019), Kriwoluzky *et al.* (2018), Pea-Assounga *et al.* (2017), Murat (2017), KPMG (2014) and Dabo (2012) there seems to be mixed relationship between repression and performance of the economy as well as performance of financial institutions. These studies were done in different financial environment compared to Kenya. In Kenya, studies done on financial repressions are few and inconclusive. Mwongeli (2016) assessed how Kenya's bank regulations affect its performance financially. Capital adequacy, asset quality, management efficiency and liquidity management were the selected variables and concluded that regulations have a direct impact on banks financial performance. Munywoki (2017) studied influence of CBK's regulations on commercial banks (those listed in NSE) performance; the study focused on three variables capital adequacy, liquidity management and management of credit risk. Sporta (2018) using a study of all the 43 commercial banks focused on impacts of financial distress factors on commercial banks performance. Liquidity, leverage, operational efficiency, asset quality and capital adequacy were selected as the main variables. Gitau and Kosimbei (2015) conducted an empirical study on impacts of repression on growth of the economy in Kenya employing interest rate ceiling, high bank reserves requirements, broad money and domestic borrowing by the government as the main variables without any moderating variables.

There was limited literature on the link between financial repression and profitability of commercial banks. Further, the previous studies did not focus on competition as a moderating aspect between financial repression and profitability. Due to the mixed results observed in the international space and local financial institutions, there is a study gap and lack of clarity on the impact of repression policies on financial performance of banks. This study therefore sought to fill this gap of knowledge by determining the effects of financial repression policies on the performance of selected commercial banks in Kenya.

Objectives of the Study

The main objective was to determine the effects of financial repression policies on the performance of selected commercial banks in Kenya.

Specific objectives included:

  i.   To examine the effect of interest rate controls on the performance of commercial banks in Kenya.

  ii. To examine the effects of government debt on performance of commercial banks in Kenya.

  iii. To determine the effects of capital controls on the performance of commercial banks in Kenya.

  iv. To determine the effects of reserve ratio on performance of commercial banks in Kenya.

  v.   To determine the moderating effect of competition on the relationship between financial repression policies and performance of commercial banks in Kenya.

Research Hypothesis

The research hypotheses for the study were:

H_{01}: Interest rate controls have no significant effect on the performance of commercial banks in Kenya.

H_{02}: Government tax has no significant effect on the performance of commercial banks in Kenya.

H_{03}: Capital controls have no significant effect on the performance of commercial banks in Kenya.

H_{04}: Reserves ratio has no significant effect on the performance of commercial banks in Kenya.

H_{05}: Competition has no significant moderating effect on the performance of commercial banks in Kenya.

Significance of the Study

Policy makers, especially The National Treasury and Central Bank of Kenya, may use the information to develop financial repression/liberalization policies or make reforms on the existing ones. The study will also assist the government of Kenya to provide public goods and services for the well-being of the community as a whole. The study will assist commercial banks to enforce fair and responsible business practices like monitor monetary policy, protect customer, regulate banking practice without undue interference.

Top management of commercial banks will benefit from the study in regard to decision making and employing strategies to ensure the banks operate profitably. The study contributes to the existing body of literature on financial repression by examining the impact of financial regulations policies on the profitability of commercial banks in Kenya. Besides contributing to the existing body of literature, the study also acts as a basis for further research and a source of information to

policy makers. Scholars and the academicians will find this study of great use as they carry out their research as it will add to the already existing literature on financial repression concepts and especially as it seeks to find correlation between financial repression and profitability.

Theoretical Literature

Public Finance Theory

Musgrave created this theory in (1960). The public finance theory suggests that financial repression impacts negatively on growth and asserts that economic liberalization instead promotes growth through facilitation of financial development, improving efficient allocation of capital, and encouraging private domestic savings. The two main policies of financial repression are based on the powers to decide who provides credit, who receives credit, credit price, conditions for resolving debt overhang outside the free flow of the market economy. Riet (2008) note that the motivation by the government to repress financial sector stems from the discretion to finance its budget at preferential conditions in order to help reduce public debts. The government is thus considered as the actor that will naturally suppress the free functioning of the markets thus distorting the incentives to save and invest. Mckinnon and Shaw advocated for free interest rates for the purpose of attracting voluntary savings from households into the open and competitive banking system to spur economic growth. Johansson (2012) adopted this theory to assess repressive policies on economic growth. Well-developed stock markets help firms and individuals to better manage liquidity and productivity risks thereby accelerating financial performance. They argue that financially repressed market discourages risk averse investors from investing in firms leading to poor resource allocation to firms and subsequent repressed growth. This theory helps in explaining the effects of government debt and reserve requirement on banks performance.

Public Policy Theory

Viana (1996) created this theory. It posits that placing financial restrictions is good and is motivated by the desire to distribute credit to selected parts of the economy. Public policy view argues that for government interventions in the financial system deal with market failure in providing credit and improving households' social welfare. The proponents argue that these are modest financial restraints as they are put in place to stimulate growth, preserve financial stability and economic growth and also to support the poor in the society. Reinhart and Rogoff (2011) assert that these government interventions help in credit intermediation and allocation by the central banks to fulfill public policy priorities. They also argue that it helps to address social equity concerns in the society apart from giving the government the tools to smoothen business cycles and steer financial development in the right direction. By examining data set of emerging economies, Prasad *et al.* (2003) found unclear-cut link between financial repression and economic growth while Stiglitz (2000) actually attributes rising financial risks and dismal growth of the economy in developing countries to financial liberalization. The theory has been adopted by Stiglitz (1994); Roubini and Sala-i-Martin (1995) ;(Johansson, 2012) in their assessment on repressive policies. The theory explains that the government regulations the government puts in

place affects the economy and hence performance of firms. The theory will be helpful in explaining the effects of interest rate controls and capital controls on performance of commercial banks.

Conceptual Framework

The study will adopt a conceptual framework taking in Bank's profitability as the dependent variable and financial repression techniques as the independent variables. Banks' profitability growth will be measured in terms of return on assets (ROA) and return on investments (ROE). Financial repression is represented by interest rate controls, domestic government debts, capital controls and reserve and liquidity ratios. Competition is a moderator in the framework. The proposed framework is illustrated in *Figure 3*.

Figure 3: Conceptual Framework
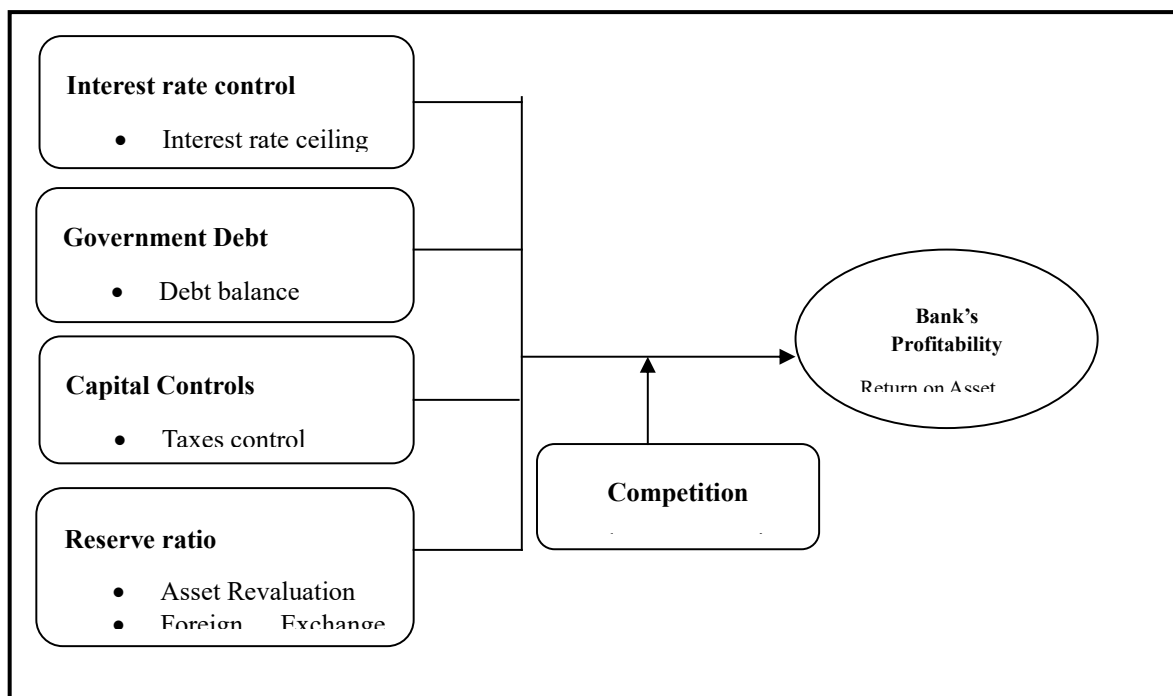
(Independent Variables)   (Moderator)   (Dependent Variable)

Source: Researcher (2020)

Research Methodology

In this research, causal research design was employed. This design is not experimental and guides the study in establishing the link existing between two variables, the independent and dependent variable. Ordinary least square regression was used, with a focus on time series. This model was used for it allows simultaneous investigation of the effects of two or more variables. The model established the connection between financial performance and financial repression. Financial repression shall be measured in terms of interest rate ceilings, domestic government debt, capital

controls and reserve requirement. The equation representing the algebraic expression of the analytic model applied is as follows:

$$Y_t = \beta_1 X_{1t} + \beta_2 X_{2t} + \beta_3 X_{3t} + \beta_4 X_{4t} + \alpha_i + \varepsilon_t \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\text{Model 1}$$

This reduced model provided the effect of independent variables on dependent variable i.e. financial repression effect on financial performance of commercial banks.

Where:

Y_t = dependent variable, ROE=Financial Performance

$\beta_1, \beta_2, \beta_3$ and β_4 = Regression coefficients

X_1 = Interest Rate controls

X_2 = Government Debt

X_3 = Capital controls

X_4 = Reserve ratio

it = These are the 36 commercial banks that have been consistently in operation from 2010-2018.

ε_{it} = Error term normally distributed about the mean of zero

t =1, 2…T

α_i = unobserved individual effect

The moderating impact of competition on the zero-order correlation between financial repression and commercial banks performance was determined by the following model:

$$Y_t = \beta_1 X_{1t} + \beta_2 X_{2t} + \beta_3 X_{3t} + \beta_4 X_{4t} + \beta_1 Comp_t + \alpha_i + \varepsilon_t \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\text{Model 2}$$

$$Y_t = \beta_1 X_{1t} + \beta_2 X_{2t} + \beta_3 X_{3t} + \beta_4 X_{4t} + \beta_1 Comp_{it} + X_{1t} * Comp_{it} + X_{2t} * Comp_{it} + X_{3t} * Comp_t + X_{4t} * Comp_t + \alpha_i + \varepsilon_t \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\text{Model 3}$$

Y_t = dependent variable, ROE=Financial Performance

$\beta_1, \beta_2, \beta_3$ and β_4 = Regression coefficients

X_1 = Interest Rate ceilings

X_2 = Government Debt

X_3 = Capital controls

X_4 = Reserve and liquidity ratio

It =these are the 36 commercial banks that have been consistently in operation from 2014- 2018.

ε_{it} = Error term normally distributed about the mean of zero

i =1, 2… n

t=1, 2…T

α_i= unobserved individual effect

$X_{it}*Comp_{it}$ = Interaction term

The study concluded that there is no moderating effect when the interaction term is insignificant or is zero, if not we conclude that there is moderating effect (Whisman & McClelland, 2005).

According to CBK 2019, Kenya has 43 commercial banks however, the study relied on desk review of publications on journals, annual reports of 36 commercial banks and internet postings by the Kenya National Bureau of Statistics, Central Bank of Kenya and International Financial Statistics to get data to be analyzed for this research, for the period between the year 2010 and the year 2018. The study excluded 7 commercial banks that are either acquired by other banks, or under statutory management or receivership. These banks are Chase Bank, Dubai bank, Giro Bank, Fidelity Bank, Charterhouse Bank, Imperial Bank and Guaranty Trust Bank.

Census method was employed, where published and verified information on the selected commercial banks was systematically gathered, recorded and analyzed. Census was of all the 36 commercial banks that have consistently operated from 2010 to the year 2018. Desk review of secondary data was collected from the audited financial statements of the selected banks; KNBS and CBK over the period 2010 to 2018.

The data was analyzed in two stages, i.e., Descriptive statistics and inferential statistics. Analysis and presentation of Descriptive statistics will be through the use of measure of central tendency (mean, mode, median), measure of dispersion (Range, standard deviation and variance) and measure of peakedness. (Kurtosis and skewness) will be used. Analysis of inferential statistics will through, Pearson correlation and the static panel regression model. Stata version 15 as the software was used to analyze that information.

Data Analysis, Results and Findings

The main objective of the study was to determine the effects of financial repression policies on the performance of selected commercial banks in Kenya. Secondary data was collected from 36 commercial banks over a 9-year period, from 2010 to 2018 and analyzed using STATA. Descriptive and inferential statistics have been used to discuss the findings of the study.

Descriptive Statistics

In this section, the study presented the descriptive statistics in the data collected. The findings are as presented in Table 1

Table 1: Descriptive Statistics

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. summarize IR GD CC RR ROE Comp
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Variable	Obs	Mean	Std. Dev.	Min	Max
IR	324	6.450833	1.426889	3.99	8.85
GD	324	1.334352	.6399898	.01	2.56
CC	324	7.724012	1.792382	4.55	11.18
RR	324	8.901636	.7705224	7.56	10.29
ROE	324	16.99636	3.988384	9.82	31.66
Comp	324	55.8858	4.465476	49	63

From the findings presented in Table 1, Interest rate controls (IR) is seen to have a mean of 6.450833 with the maximum value being 8.85 and the minimum value being 3.99. On government debt (GD), the mean value was 1.334352 (this was in Ksh.10^6) with the minimum value recorded by the 36 commercial banks over the 9 years period being $0.01*10^6$ and the maximum value being $2.56*10^6$. The findings also show that the mean value of capital control recorded was 7.724012 with the maximum value recorded being 11.18 and the minimum value being 4.55. The findings also showed that reserve ratio (RR) had a mean value of 8.901636 with the maximum value recorded being 10.29 and the minimum value being 7.56. In addition, the average profitability of the 36 commercial banks between 2010 and 2018 measures in terms of Return on Equity (ROE) was 16.99636 with the maximum value recorded being 31.66 and the minimum value being 9.82. The findings also showed that the mean value of competition was 55.8858 with the maximum value recorded over the 9-year period under investigation being 63 and the minimum value being 49. The findings concur with Mwega (2014) who concluded that reforms in banking industry led to a stronger banking industry over the past 10 years.

Inferential Statistics

Correlation Analysis

The study computed Spearman correlation analysis to establish the strength and the direction of the relationship between the dependent and the independent variables. The findings were as presented in Table 2.

Table 2: Correlation Analysis

	ROE	IR	GD	CC	RR
ROE	1.0000				
	324				
IR	0.9903*	1.0000			
	0.0000				
	324	324			
GD	-0.9598*	-0.9629*	1.0000		
	0.0000	0.0000			
	324	324	324		
CC	0.9833*	0.9884*	-0.9561*	1.0000	
	0.0000	0.0000	0.0000		
	324	324	324	324	
RR	0.9896*	0.9985*	-0.9617*	0.9854*	1.0000
	0.0000	0.0000	0.0000	0.0000	
	324	324	324	324	324

From the findings, interest rate control had positive significant influence on profitability of commercial banks (r=0.9903, p-value=0.0000); Government debt was found to have negative significant influence on profitability (ROE) (r=-0.9598, p-value=0.0000); capital controls was also seen to have a positive and significant influence on profitability of commercial banks (r=0.9833, p-value=0.0000); and lastly, the finding showed that reserve ratio had positive significant relationship with ROE (profitability of commercial banks ((r=0.9896, p-value=0.0000). From the findings, all the variables had significant relationship with the dependent variable.

The findings concur with Enyioko (2012) who established that policies on interest rates haven't led to significant improvement is banks overall performance and have had marginal contribution towards the growth of the economy. Ersoy (2012) inquiry on government debt versus financial profundity and established that in the long run, there is a balanced negative connection between local cases of banks sovereign and financial turn of events. Garcıa (2017) indicated that capital controls are viable in decreasing the understood cost part of FX market liquidity yet can likewise have a negative basic impact on the FX advertise by making it increasingly powerless against imbalances of flows. Milošević (2014) examination of the fiscal interest model demonstrated that there is a functioning transmission component of progress in reserve prerequisite rate on the deposits pattern on loaning. Additionally, there is a huge effect of FDIs on deposits in the financial framework, just as the positive effect of turnover on stock trade on the stores and advances pattern.

Regression Analysis

Panel regression was computed to establish the effects of financial repression policies on the performance of selected commercial banks in Kenya.

Table 3: Model Summary and ANOVA Findings

Source	SS	df	MS		
				Number of obs =	324
				F(4, 319) =	4454.31
Model	5047.65513	4	1261.91378	Prob > F =	0.0000
Residual	90.3731698	319	.283301473	R-squared =	0.9824
				Adj R-squared =	0.9822
Total	5138.0283	323	15.9072084	Root MSE =	.53226

From the ANOVA statistics, the study established the regression model had a significance level of 0.0000 which is an indication that there was a significant relationship between the variables. The calculated F value was greater than the F critical value (4454.31>2.400) an indication that there was a significant relationship between interest rate controls, government debt, capital controls and reserve ratio and the dependent variable which was performance of commercial banks in Kenya. The p value (0.0000) was less than 0.05 indicated that the combined relationship between the selected factors on performance of commercial banks in Kenya was significant.

From the findings, the value of adjusted R squared was 0.9822, an indication that there was variation of 98.22% on performance of commercial banks in Kenya due to changes in interest rate controls, government debt, capital controls and reserve ratio at 95% confidence interval. This shows that 98.22% of changes in performance of commercial banks in Kenya could be accounted for by changes in interest rate controls, government debt, capital controls and reserve ratio. This shows that the remaining 1.78% of changes in performance of commercial banks in Kenya was accounted for by other factors other than interest rate controls, government debt, capital controls and reserve ratio. The findings disagree with Vianney (2013) who concluded that regulations and profitability of Rwanda's commercial banks are insignificantly related.

Coefficients

Assuming a linear relationship between the independent and the dependent variable and guided by OLS estimation methods, the relationship between the independent and dependent variables as presented by the regression model was tested. The multiple regression equation was.

$$Y_t = \beta_1 X_{1t} + \beta_2 X_{2t} + \beta_3 X_{3t} + \beta_4 X_{4t} + \alpha + \varepsilon_t$$

Where: Y_t = ROE=Financial Performance; $\beta_1, \beta_2, \beta_3$ and β_4 = Regression coefficients; X_1 = Interest Rate controls; X_2 = Government Debt; X_3 = Capital controls; X_4 = Reserve ratio

it = These are the 36 commercial banks that have been consistently in operation from 2010-2018; ε_{it} = Error term normally distributed about the mean of zero; **i**=1, 2… n; **t**=1, 2…T; α_i = unobserved individual effect.

Table 4: Regression Co-efficient

ROE	Coef.	Std. Err.	t	P>|t|	[95% Conf. Interval]	
IR	1.022089	.4324161	2.36	0.019	.1713413	1.872837
GD	-.4523741	.1725445	-2.62	0.009	-.7918431	-.1129051
CC	.4525844	.1110032	4.08	0.000	.2341935	.6709753
RR	1.833838	.7124687	2.57	0.011	.4321071	3.235569
_cons	-8.81327	3.949052	-2.23	0.026	-16.58275	-1.043792

From the data in Table 4, the following regression equation was fitted.

$Y = -8.81327 + 1.022089 X_1 - .4523741 X_2 + .4525844 X_3 + 1.833838 X_4$

From the equation above, it can be seen that when all the other variables, that is interest rate controls, government debt, capital controls and reserve ratio are held to a constant zero, the dependent variable, profitability of commercial banks in Kenya (ROE) will be at a constant value of -8.81327. The findings further show that interest rate controls have significant influence on profitability since the p-value (0.019) is less than the selected level of significance (0.05). The findings further show that the effect of interest rate controls on profitability of commercial banks in Kenya is positive (β=1.022089). Therefore, interest rate controls is said to positively and significantly influence financial performance (profitability) of commercial banks in Kenya. The findings concur with Kihara (2017) who found out that the rate of lending impacts financial wellbeing of banks positively. Further, there was a positive noteworthy connection between lending rate ratio and banks financial execution.

On government debt (GD), the findings show that it has significant influence on financial performance of commercial banks in Kenya since the p-value obtained (0.009) was less than the selected level of significance. The findings further show that the coefficient for government debt was -.4523741 an indication that government debt has negative influence on profitability of commercial banks in Kenya. Therefore, government debt is seen to have negative significant influence on financial performance of commercial banks in Kenya. The findings agree with Bundi (2013) who noted that positive connection between financial liberalization and private domestic savings does not exist which puts pressure on the growth of commercial banks as liberalization has not led to increased savings mobilization

The findings further show that capital control has significant influence on financial performance of commercial banks as indicated by p-value (0.000) which is less than the selected level of significance (0.05). The findings further showed that capital controls have positive influence on profitability of commercial banks in Kenya as indicated by coefficient value of 0.4525844. These findings suggest that capital controls positively and significantly influence profitability of commercial banks in Kenya. The findings agree with Bush (2019) who affirms that on average,

policy doesn't have a factually critical impact on gathered gross capital streams, while controlling other components.

Lastly, the findings showed that reserve ratios have significant influence on the dependent variable (financial performance of commercial banks in Kenya). The findings further showed that reserve ratios have positive influence on profitability of commercial banks in Kenya as indicated by coefficient value of 1.833838. These suggest that reserve ratios positively and significantly influence financial performance of commercial banks in Kenya. The findings concur with MacCarthy (2016) who indicated that banks financial performance and reserve ratios of the banks were directly associated. Banks performance in terms of ROI was significantly predicted by cash reserve ratio.

Moderated Regression Analysis

The moderating effect of competition on the zero-order correlation between financial repression and commercial banks performance was tested using the model presented below:

$$Y_t = \beta_1 X_{1t} + \beta_2 X_{2t} + \beta_3 X_{3t} + \beta_4 X_{4t} + \beta_1 Comp_t + X_{1t} * Comp_t + X_{2t} * Comp_t + X_{3t} * Comp_{t+} X_{4it} * Comp_t + \alpha + \varepsilon_t$$

The findings were presented and discussed here-under.

Table 5: Model Summary and ANOVA for Moderated Equation

Source	SS	df	MS		
				Number of obs = 324	
				F(8, 315)	= 3292.49
Model	5077.30865	8	634.663582	Prob > F	= 0.0000
Residual	60.7196487	315	.19276079	R-squared	= 0.9882
				Adj R-squared	= 0.9879
				Root MSE	= .43905
Total	5138.0283	323	15.9072084		

After the introduction of the moderating variable (competition), the ANOVA statistics, showed that the regression model had a significance level of 0.0000 which is an indication that there was a significant relationship between the variables. The calculated F value was greater than the F critical value (3292.49>1.968) an indication that there was a significant relationship between the moderated variables, and the dependent variable which was profitability of commercial banks in Kenya. The p value which was less than 0.05 indicated that the combined relationship between the selected factors on financial performance of commercial banks in Kenya was significant.

From the findings, the value of adjusted R squared was 0.9879, an indication that there was variation of 98.79% on performance of commercial banks in Kenya due to changes in interest rate controls, government debt, capital controls, reserve ratio, interest rate controls*competition, government debt*competition, capital controls*competition, and reserve ratio*competition at 95% confidence interval. This shows that 98.79% of changes in performance of commercial banks in

Kenya could be accounted for by changes in interest rate controls, government debt, capital controls, reserve ratio, interest rate controls*competition, government debt*competition, capital controls*competition, and reserve ratio*competition. The remaining 1.21% of changes in performance of commercial banks in Kenya was accounted for by other factors that were not included in the model.

Table 6: Moderated Regression Coefficients

ROE	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
IR	0.726412	0.135261	5.37	0.011	-2.491003	-1.943826
GD	-1.77964	0.501639	-3.55	0.014	-.5846163	-.14389
CC	1.043458	0.161722	6.45	0.000	-.2584957	-.045411
RR	5.348855	0.845685	6.32	0.000	3.684949	7.01276
c.IR#c.Comp	0.812317	0.121315	6.70	0.012	-1.616717	-.5920844
c.GD#c.Comp	-0.62965	0.200422	-3.14	0.032	-1.338785	-.0794928
c.CC#c.Comp	1.408707	0.21577	6.53	0.029	-.8332394	-.0158246
c.RR#c.Comp	5.691522	0.7302	7.49	0.001	.0418457	1.341198
_cons	-43.03909	5.716123	-7.53	0.000	-54.2857	-31.79248

$Y_t = -43.03909 + .7264117X_1 - 1.77964X_2 + 1.043458X_3 + 5.348855X_4 + 0.812317 X_1*Comp - 0.62965X_2 * Comp + 0.408707X_3 * Comp + 0.691522X_4 * Comp + \varepsilon_t$

From the regression equation above, it is evident that when all the variables (both independent variables and the moderated variables) are held to a constant zero, performance of commercial banks will be at a constant value of -43.03909. The findings also show that all the variables have significant influence on the dependent variable (performance of commercial banks in Kenya. They were considered to be significant since at 95% confidence interval, none of the variables had zero values.

The findings show that interest rate controls had 0.726412 units influence on performance of commercial banks in Kenya but after introduction of moderating variable (competition), the influence increased to 0.812317. The findings also show that government debt had an influence of -1.77964 on performances of commercial banks in Kenya but after the introduction of competition as moderating variable the influence decreased to -0.62965; this suggests that competition has positive influence on the relationship between government debt and performance of commercial banks in Kenya.

The findings also showed that before introduction of moderating variable (competition), capital controls had 1.043458 units influence on performance of commercial banks in Kenya but after being moderated with competition, the influence decreased to 1.408707 units. This suggests that

competition has positive influence on the relationship between capital controls and performance of commercial banks in Kenya.

Furthermore, the findings showed that reserve ratios had 5.348855 units influence on performance of commercial banks in Kenya before being moderated by competition; after the introduction of moderating variable, the influence decreased to 5.691522 units. This suggests that competition has positive moderating influence on the relationship between reserve ratios and performance of commercial banks in Kenya.

The findings concur with Enyioko (2012) who established that policies on interest rates haven't led to significant improvement is banks overall performance and have had marginal contribution towards the growth of the economy. Ersoy (2012) inquiry on government debt versus financial profundity and established that in the long run, there is a balanced negative connection between local cases of banks sovereign and financial turn of events. Garcıa (2017) indicated that capital controls are viable in decreasing the understood cost part of FX market liquidity yet can likewise have a negative basic impact on the FX advertise by making it increasingly powerless against imbalances of flows.

Conclusions

The study found that interest rate has significant influence on performance of commercial banks in Kenya. The study further established that interest rate controls positively and significantly influences performance. Based on these study findings, the study concludes that a unit increase in interest rate controls will result to improved performance of commercial banks in Kenya.

The study established that government debt had negative influence on performance of commercial banks. In addition, the influence was significant. Therefore, government debt was seen to have inverse relationship with performance of commercial banks in Kenya. From these study findings, the study concluded that a unit increase in government debt will result to a decrease in performance of commercial banks in Kenya.

Regarding capital controls, the study established that it had significant influence on performance of commercial banks. In addition, it (capital controls) was found to have positive influence on performance. This was an indication that capital control has direct relationship with performance of commercial banks in Kenya. From these study findings, the study concluded that a unit increase in credit controls will result to an increase in financial performance of commercial banks in Kenya

On reserve ratios, the study findings showed that it had positive influence on performance of commercial banks in Kenya. The study also established that the influence of reserve ratios on performance was significant which implied that the two variables had direct relationship. From the findings of the study, the study concluded that a unit increase in reserve ratios will result to an increase in performance of commercial banks in Kenya.

The study further established that competition had positive influence on all the independent variables (interest rate controls, government debt, capital controls and reserve ratio). The influence of moderating variable (competition) on the relationship between the dependent and the independent variables was significant. The study therefore concluded that competition was a significant moderating variable for the relationship between financial repression policies on the performance of selected commercial banks in Kenya.

Recommendations

Since the interest controls had a positive significant effect on financial performance on commercial banks, the study recommends Central bank of Kenya to develop policies that will ensure that the interest rate controls transmission are effective by maintaining a low and stable central bank rate and therefore a competitive loan market. The study recommends management of commercial banks to ensure that they maintain their implicit interest rate at its minimum in order to lower their operation cost and as a result increase their profits.

The result of the study indicate that public debt had a significant and negative effect on commercial bank performance. The study recommends that treasury should borrow less from the domestic market, because it crowds out private borrowing. This will encourage private borrowing which provides better returns to commercial banks compared to government borrowing. Foreign debt should be composed mostly of concessional borrowing which is cheaper than commercial borrowing and therefore reduce exposure of the government to financial distress, which is causing uncertainty in the market and therefore affecting commercial banks performance negatively.

From the study findings Capital controls had a positive significant effect on financial performance of commercial banks. The Central bank of Kenya and Capital market Authority are able to regulate the short-term capital inflows (Hot Money) which destabilizes the market.

The study recommends Capital Market Authority and Central Bank of Kenya should develop capital account policies and ensures that these policies encourage openness; this will lead to increased flow of long-term capital and discourage return seeking short term capital. The study also recommends the government to develop more conscientious fiscal policy and Kenya's specific prudential regulation design for the financial development of the country.

Since Reserve requirement had a positive significant effect on financial performance of commercial banks, the study recommends the Central Bank to increase the Reserve requirement because it provided a capital and liquidity buffer and therefore enhances the stability of commercial banks. This was evident during Covid 19 period where commercial banks remained stable despite the financial distress period.

Competition as a moderating variable in general had an effect on financial performance of commercial banks. Competition drives commercial banks to improve their internal efficiency and therefore reduce operational costs. The study recommends that the management of commercial

banks should undertake operational re-structuring and managerial efficiency to avoid unnecessary operations that can impact banks' profits.

The main objective of this study was to determine the effects of financial repression policies on the performance of selected commercial banks in Kenya. The study was conducted among 36 commercial banks in Kenya; the study thus recommends replication of the research study in all the 43 commercial banks to obtain clear findings. Data used in the study was for a period of 9 years, the use of more years would provide clear trend on the effects of repression policies. The study also recommends replication of the study with performance of the bank measured in terms of market performance.

Financial regulations have often been formulated through an arbitrary process; the study recommends further research in order to get the optimal interest rate caps as well as other financial control ceilings and floors, given different case scenarios that would be beneficial to the customers as well as financial institutions.

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