

**THE EFFECT OF FINANCIAL LIBERALIZATION ON THE STABILITY OF
COMMERCIAL BANKS IN KENYA**

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DECLARATION

This research project is my original work and has not been submitted for examination to any other university

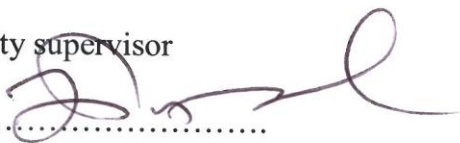
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DEDICATION

This project is dedicated to my family members for support and encouragement.

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LIST OF ABBREVIATIONS

- CBK : Central Bank of Kenya
DFIs : Development Finance Institutions
ECT : Error Correction Term
ERS : Economic Recovery Strategy
FDI : Foreign Direct Investment
GDP : Gross Domestic Product
GoK : Government of Kenya
MFIs : Micro-Finance Institutions
MRR : Minimum Rediscount Rate
ROSCAs : Rotating Savings and Credit Associations
SACCOs : Savings and Credit Cooperative Societies
SARB : South African Reserve Bank
SPSS : Statistical Package for Social Sciences

ABSTRACT

The major negative implications of global crisis on the financial systems and real economies of the countries of the world have brought into focus of the decision makers and researchers the problem of evaluating and monitoring the financial stability of the banking sector.

One line of research has focused on the relationship between financial liberalization and the stability of banking sector. This study contributed to the line of research by examining the effects financial liberalization on the stability of banks in Kenya. The study design was a descriptive survey which targeted all commercial banks in the Kenya banking sector. Secondary data was used in this study. Descriptive (mean and standard deviation) and inferential statistics (paired samples t-test) were used to analyze data.

The study established that financial liberalization influenced the stability of banks in Kenya. Financial liberalization affected the rate of inflation, exchange rate volatility, Treasury bill rate and GDP growth rate. The highest rates of inflation and highest fluctuations in the rates of inflation were recorded during the period of financial liberalization. The study recommends that the central bank of Kenya should come up with a policy package that combines financial liberalization with structural reforms to raise productivity, improve stability of financial institutions and fast-track path to development. Structural reforms that improve macro and microeconomic stability in Kenya can make financial liberalization successful.

CHAPTER ONE

INTRODUCTION

1.1 Background of the study

1.1.1 Financial Liberalization

The term financial liberalization is defined by various economists in different ways. Financial liberalization is the removal of various constraints in the financial sector such as the withdrawal of interest rate restrictions and deregulation of banks, combined with better monetary policy frameworks, to enhance development and growth in the financial sector (Chauhan, 2012). Patnaik (2011) states that financial liberalization is used to cover a whole set of measures, such as the autonomy of the Central Bank from the government; the complete freedom of finance to move into and out of the economy, which implies the full convertibility of the currency; the abandonment of all “priority sector” lending targets; an end to government-imposed differential interest rate schemes; a freeing of interest rates; the complete freedom of banks to pursue profits unhindered by government directives; the removal of restrictions on the ownership of banks, which means de-nationalization and full freedom for foreign ownership.

According to Baswir (2007), the objective of financial liberalization is to promote the role of the market and to minimize the role of the state in determining who gets and gives credit and at what price. Similarly, Baden (1996) argues that financial liberalization means the removal of government ceilings on interest rates and of other controls on financial intermediaries. It is concerned with macroeconomic aggregates (interest rates, savings and investment) and conditions in formal financial markets.

Financial liberalization brings both costs and benefits to emerging market economies. The potential benefits could be better mobilization of savings, both local and foreign; higher economic growth; reduced poverty; and enhanced stability. McKinnon (1973) and Shaw (1973) concur that liberalization enhances growth in an economy by allowing domestic and international firms to access their financial markets, and by improving the efficiency and corporate governance in domestic financial systems. However, the potential cost must be considered too. Following liberalization, many developing countries found that their financial markets had become more unstable, and their financial institutions more fragile because of unfamiliar practices, excessive risk-taking and weaknesses in the regulatory structure.

1.1.2 Stability of Commercial Banks

Stability of the commercial Banks requires the financial system, which comprises financial intermediaries, markets and market infrastructures, to be able to tolerate shocks for the foreseeable future. This is important for all economies, especially those experiencing financial turmoil. A financial system that is resilient to shocks can be identified by its well operating institutional framework. Institutions that contribute to (or damage, as the case may be) the financial system operating well include banks, insurers, securities exchange, central banks and national regulators. These institutions conduct economic transactions and promote investments. Therefore, it is crucial that the financial system is sound since it plays a role in the country's economic growth.

In contrast, financial instability frequently leads to a financial crisis. A financial crisis generally occurs when creditors, especially when they are banks, are unable to fulfil their

obligations. Usually, a fragile financial system will lead to instability in an economy. This is evident from a weak banking system, insufficient liquidity buffers, low-quality capital, uneven supervision, lack of effective regulation, fiscal imbalances and macroeconomic vulnerabilities. The SARB (2004) states that “financial instability can be triggered by a whole range of developments such as inherent weaknesses in the fabric of the financial system itself”, for instance inadequate banking laws and supervision; quality of the financial system infrastructure, such as lack of transparency and inadequate payment system; and the probability of a shock.

1.1.3 Financial Liberalization and Stability of Commercial Banks

Previous studies have examined the relationship between financial liberalization and stability in the banking sector. The studies financial liberalization has both positive and negative influence banking sector. The following authors established positive influence of financial liberalization on the stability of banking sector. Karahasan (2011) asserts that financial liberalization leads to relaxation of the restrictions in financial markets. Liberalization of the financial markets will allow the free market to determine the allocation of resources with the real interest rate adjusting to its equilibrium level.

Liberalization of the financial markets it is able to relieve financial repression by freeing interest rates and allowing financial innovation, reducing directed and subsidized credit, as well as allowing for greater freedom in terms of external flows of capital in various forms (Ghosh, 2005). Harangus (2008), reported that financial liberalization is associated with the influx of new banks led the banking system on a new corridor

of performance due to the intensification of competition and the increase in offering new products and complex bank services. Shankar and Sanyal (2007) argue that financial liberalization lead to an increase in competition and productivity across all banks (both public and private). Majid, Muhamed and Sufian (2007) in their study of Malaysian Banks, where they found that the influx of new banks with some restrictions on banking operations led to increase competition in the banking sector.

Laeven (2000), analyzed 20-year data of emerging market economies, and concluded that the liberalization did ease financial restrictions that domestic institutions faced, such as high interest rates, credit ceilings and excessive regulation. The integration with international firms also accelerated transformation and contributed towards the achievement of a more robust financial system, that is, a financial system that was sounder, and more efficient and effective. Thus, emerging market economies did, to some extent, benefit from financial liberalization by being able to tap into global capital, which contributed towards increasing the degree of investment and output, and improved the efficiency of capital allocation. McKinnon (1973) and Shaw (1973) in their works discussed liberalization as a concept that enables the investment of interest rate that equate the demand for and supply of saving. They are of the opinion that financial liberalization would encourage savings and investment.

According to World Bank (2001), many developing countries have laws that prevent foreign banks from establishing branches or affiliates in their country. Instead of seeing foreign banks as a threat, their entry should be seen as an opportunity to increase the stability of the financial system in general and the efficiency of the banking system in particular. Foreign banks come with expertise in areas like risk management and are

typically more efficient than domestic banks (Inter-American Development Bank, 2004). Countries that allow foreign bank entry have more stable financial systems and fewer episodes of financial crisis (Barth, Caprio and Levine, 2005).

Studies also established negative influence of financial liberalization on the stability of banking sector. Despite the benefits of liberalization, there are some negative economic and social effects, which might overshadow the benefits of financial liberalization (Ghosh, 2005). Ang (2010), for example, shows that financial liberalization does not seem to reduce unequal access to finance. Beck (2008) noted that financial liberalization has often been blamed for subsequent banking fragility in many developed and developing countries. According to Ang (2011), the undesirable effects of financial liberalization are found to operate through the triggering of crises and volatility in the financial system. If competition among banks in the newly deregulated financial sector is weak, liberalization may result in lower real deposit rates rather than the anticipated movement toward modestly positive equilibrium levels (Huw and Mahmood, 1997). Grima and Shortland (2005) claimed that financial liberalization often has adverse consequences, particularly when financial regulation and supervision are not sufficiently effective to prevent moral hazard among banks. Also, it is important to note that financial deregulation creates opportunities for banks to make poor lending decisions. Fischer and Chenard (1997) make a similar argument in their assertion that there is an unambiguous increase in risk to the banking sector, which implies a higher probability of a banking crisis following financial liberalization.

Following liberalization, many developing countries found themselves involved in a condition of high instability and increasing fragility of their financial systems (Kirkpatrick, 2002). This was because of weaknesses in the regulatory structure and excessive risk-taking. As a result, financial liberalization led to a difficult transition in order to achieve an efficient financial system. It “coincided with heightened financial instability, culminating in dramatic financial crises” (Kirkpatrick, 2002). According to Walter (2002), this was because “weak prudential regulation and institutions created substantial vulnerabilities in the financial systems of various developing countries”. In addition, “the increase in moral hazard problems eroded bank profitability” (p. 1). This was because previously government had protected banks’ profits by restricting banking competition, but after liberalization competition increased and banks did not have that privilege of government protection. This resulted in greater risks being taken by these banks to maintain the previous levels of profitability which, in some cases, led to an erosion of profitability

Some authors argue that liberalization induces risk-taking behavior and may cause banking crises (Demirgüç-Kunt and Detragiache, 2000; Mehrez and Kaufmann, 2000). On the other hand, Choudhry and Jakob (2008) found that liberalization reduces the likelihood of systemic crises, which is against the commonly held view that liberalization increases the likelihood of a banking crisis. Beck, Demirguc-Kunt and Ross (2006) found that that regulatory policies and institutions that discourage competition are associated with greater banking system fragility.

1.1.4 Financial Liberalization and Commercial Banks in Kenya

Financial reforms in Kenya were initiated as from 1989. They were later intensified in the 1990s with the following reforms being initiated: interest rate were freed in July 1991; enforcement of credit guidelines were relaxed from 1991; exchange rate were allowed to float from 1993; offshore borrowing was allowed from 1994; and foreign investors allowed to participate in local stock market from 1995 (Ndung'u, 1997). The share of government ownership in major banks was also reduced (Ngugi, 2000). After liberalization in early 1990s, interest rates have been oscillating downwards. On the other hand, gross domestic savings and gross capital formation had a systematic relationship until 1992 when domestic savings started to decline gradually while gross capital formation oscillated between 15% and 22.5% with the period between 2002 to 2011 recording gradual increase. The systematic relationship before 1992 is an indication of a positive relationship before financial liberalization.

The government undertook numerous financial reforms due to the importance attached to domestic savings in the development process. For instance, to achieve higher investment levels for sustainable development, economic recovery strategy aimed to increase domestic savings through measures of promoting savings and ensuring their efficient allocation (Republic of Kenya, 2003). The Government of Kenya has put numerous efforts in every budgetary speech geared towards encouraging savings mobilization as envisaged in Vision 2030. For instance, in the budget speech of financial year 2009/2010, the government amended the Banking Act in order to allow for branchless banking which was meant to allow banks to extend their services especially savings through agencies which have wide distribution networks while in 2010/2011 budget speech, the Republic

of Kenya amended the Micro Finance Act to facilitate use of third party agents by deposit taking Micro-Finance Institutions (MFIs).

The Government of Kenya has endeavored to put in place mechanisms of a well-developed financial system that enable the sector to reach its full potential in allocation of economic resources across the economy (Republic of Kenya (2007). To this end the financial sector in Kenya is comprised of banking, insurance, pension fund and capital markets. There are other parts of the sector which include Quasi-Banking composed of Savings and Credit Cooperative Societies (SACCOs), Microfinance institutions (MFIs), Building Societies, Development Finance Institutions (DFIs) and informal financial services such as Rotating Savings and Credit Associations (ROSCAs).

1.2 Research Problem

The major negative implications of current global crisis on the financial systems and real economies of the countries of the world have brought into focus of the decision makers and researchers the problem of evaluating and monitoring the financial stability of the banking sector. One line of research has focused on the relationship between financial liberalization and the stability of banking sector and the results are varied. Previous studies have established positive influence of financial liberalization on the stability of banking sector. Financial liberalization allow the free market to determine the allocation of resources with the real interest rate adjusting to its equilibrium (Karahasan, 2011) relieve financial repression by freeing interest rates and allowing financial innovation, reducing directed and subsidized credit, as well as allowing for greater freedom in terms of external flows of capital in various forms (Ghosh,

2005), lead to an increase in competition and productivity across all banks (Shankar and Sanyal, 2007), and encourage savings and investment (McKinnon, 1973 and Shaw, 1973).

On the other hand, several authors have argued that financial liberalization have negative influence of on the stability of banking sector. For instance, financial liberalization does not seem to reduce unequal access to finance (Ang, 2010), lead to banking fragility in many developed and developing countries (Beck, 2008), may result in lower real deposit rates rather than the anticipated movement toward modestly positive equilibrium levels if competition among banks in the newly deregulated financial sector is weak (Huw and Mahmood, 1997) and creates opportunities for banks to make poor lending decisions (Grima and Shortland, 2005).

Liberalization of financial sector creates a financial environment suitable to enhance positive returns on money capital as well as an appropriate institutional framework which eventually leads to increase in private domestic savings and investment hence promoting economic growth (Ngugi, 2000). Kenya initiated financial sector reforms in the early 1990s with liberalization of interest rates taking the lead in 1991 followed by removal of credit guidelines, free entry into the banks and opening of the financial sector to foreign investors (Ndung'u, 1997).

Previous studies have examined financial liberalization in Kenya. For example Ndiragu, (2008) found a negative relationship between financial liberalization and private domestic savings. Ngugi and Kabubo (1998) investigated financial sector reforms and interest rate liberalization in Kenya. The study found that although much had been accomplished, the

financial system was characterized by repression factors including negative real interest rates, inefficiency in financial intermediation and underdeveloped financial markets. Bundi (2013) examined the effects of financial liberalization on private domestic savings in Kenya. The results indicate that interest rate liberalization together with credit control elimination have a negative effect on private domestic saving. Nevertheless, none of the previous studies in Kenya have examined the relationship between financial liberalization and the stability of banking sector in Kenya. Therefore, this study seeks to fill this knowledge guided by the following research question; what is the effect of financial liberalization on the stability of banks in Kenya?

1.3 Research Objectives

To examine the effects financial liberalization on the stability of banks in Kenya.

1.4 Value of the Study

The study finding will enable bank to come up with policies that will enhance their stability as a result of financial liberation. The banks will be able to use the study findings as a benchmark for policy formulation to enhance performance in the liberal financial market.

The study findings will serve as a benchmark for policy formulation by the government. The government, through the Ministry of Finance and the Central Bank of Kenya, will use the study findings to enact law and regulation that will enable financial liberation to stabilize Kenyan banking sector. The study will contribute to the existing body of knowledge on financial liberation. Therefore, scholars and researchers will use the study findings as reference in the study of financial liberation and stability of the banking sectors.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter presents review of literature. Literature review was categorized into theoretical review and empirical review. The theoretical review entails McKinnon-Shaw theory of financial liberalization and capital account liberalization. The empirical review covers financial liberalization, banks stability, financial liberalization and banking stability and Kenyan banking sector.

2.2 Theoretical Review

2.2.1 McKinnon-Shaw Theory of Financial Liberalization

Financial liberalization theory has its origins in the work of McKinnon (1973) and Shaw (1973). According to McKinnon financial saving is necessary for investment and consequently for growth. In emerging markets, saving resources exist but are badly managed. Emerging economies are fragmented so there is a greater likelihood of having investments that are less productive. Capital accumulation is discouraged by the fact that for a high inflation rate, nominal interest rates are set too low and thus real interest rates could be negative. As capital supply of banks is limited and banks have only specialized credit activities, people have to finance their investment projects by themselves or have to go to the informal sector where interest rates are often usurious.

For McKinnon, financial liberalization lead to unified financial markets and the best strategy is to let interest rates freely fluctuate. In this case, interest rates would reflect the

capital scarcity and the information costs about borrower quality. Beside, high interest rates would stop low yield investments. The authorities should limit their role to ensure low inflation and to promote financial sector development.

According to Shaw, financial liberalization permits a centralization of the funds market, which is a necessary condition for economic development. According to him, financial repression has several negative consequences:

In contrast, financial liberalization has positive effects on growth thanks to an optimal allocation of resources with a saving price that reflects its scarcity and the unification of the domestic financial system. Moreover, it also leads to less unemployment (as the price of capital increases and as there is substitution of capital by labor), a better financial credit offer (with longer maturity for instance) and the entry of foreign capital.

McKinnon (1973) and Shaw (1973) stressed that financial repression affects how efficiently savings are allocated to investment and through its effect on the return to savings, it also affects the equilibrium level of savings and investment. In this framework, therefore, investment suffers not only in quantity but also in quality terms since bankers do not ration the available funds according to the marginal productivity of investment projects but according to their own discretion. Under these conditions the financial sector is likely to stagnate. The low return on bank deposits encourages savers to hold their savings in the form of unproductive assets such as land, rather than the potentially productive bank deposits. Similarly, high reserve requirements restrict the supply of bank lending even further whilst directed credit programmes

distort the allocation of credit since political priorities are, in general, not determined by the marginal productivity of different types of capital.

McKinnon (1973) and Shaw (1973) advocated for a liberalized financial markets in which the free market determine the allocation of credit. With the real rate of interest adjusting to its equilibrium level, at which savings and investment are assumed to be in balance, low yielding investment projects would be eliminated, so that the overall efficiency of investment would be enhanced. Also, as the real rate of interest increases, saving and the total real supply of credit increase, which induce a higher volume of investment. Economic growth would, therefore, be stimulated not only through the increased investment but also due to an increase in the average productivity of capital. Moreover, the effects of lower reserve requirements reinforce the effects of higher saving on the supply of bank lending, whilst the abolition of directed credit programs would lead to an even more efficient allocation of credit thereby stimulating further the average productivity of capital.

2.2.2 Capital Account Liberalization

Kose and Prasad (2004:50) define ‘capital account liberalization’ in broad terms, as the easing of restrictions on capital flows across a country’s borders, which presumably results in a higher degree of financial integration with the global economy through higher volumes of capital inflows and outflows. Since the capital account covers a variety of financial inflows, such as portfolio flows, Foreign Direct Investment (FDI) and bank borrowing, controls on these accounts can be restricted for the purpose of a country shielding itself from danger related to volatility in international capital flows. As a result,

capital inflows that are of short duration can be suspended when a country experiences macroeconomic shocks, thereby magnifying their macroeconomic effect. However, Kose and Prasad (2004:50) advocate that in some developing countries capital controls are also used to maneuver the composition of inflows towards more stable forms such as FDI and that countries favor FDIs because the benefits of the flows are usually long term and not subject to rapid reversals associated with changes in investor sentiment.

Generally, the benefits of capital account liberalization include a higher return on savings for people in developed countries, and improvement in economic growth and strengthening of employment opportunities in developing countries. This is because, according to Kose and Prasad (2004), capital account liberalization allows for a more efficient global allocation of capital from industrial to developing economies.

2.3 Financial Liberalization

The financial liberalization literature emanated towards the beginning of the Seventies at the time of the construction of financial repression school by works precursors of McKinnon (1973) and Shaw (1973). According to these two authors, financial liberalization is the only effective means to develop banking intermediation, to start again the capital accumulation and to promote the economic growth in the countries. These authors come to present the misdeeds of financial repression and to defend the founded good of financial liberalization.

McKinnon (1991) gave perhaps the most comprehensive discussion of the correct sequencing of financial liberalization. While arguing that his initial policy prescriptions were not incorrect, he now added that a certain sequence of economic reform should be

followed if financial liberalization is to be successful. The first step of this sequence is appropriate macroeconomic policy, which includes fiscal control, balancing the government budget, privatizing state-owned enterprises, and ensuring an adequate internal revenue service for the purpose of tax collection.

The second step in the sequence is the liberalization of domestic financial markets by allowing interest rates to be determined freely by the market, freeing up onerous reserve requirements, and privatizing the banks. This step also includes the establishment of commercial law and the liberalization of domestic trade. McKinnon proposes that the privatization of banks may come near the end of this step because this can only occur after the proper re-capitalization of bad loans (McKinnon, 1991).

Step three includes the liberalization of foreign exchanges, which includes the liberalization of the exchange rate for current account transactions and the liberalization of tariffs, quotas, and other international trade restrictions. Only in the final step are international capital flows to be liberalized. So, while the goal of financial liberalization—the establishment of a market-based financial system—remained the same, the process necessary to achieve that goal was no longer regarded simply as that of doing away with government intervention in financial markets (McKinnon, 1991).

Several schools of thought have criticized financial liberalization for a number of reasons. The most influential of all these criticisms is based on the argument that savings may not necessarily depend on the rate of interest and, if they do, the rate of interest may actually reduce rather than increase the volume of savings. An increase in the interest rate has two effects, namely the positive substitution effect (which promotes savings) and the

negative income effect (which deters savings) (Bandiera et al. 1999). However, it is likely that the negative income effect will offset the positive substitution effect, thereby leading to a negative overall effect on savings. An increase in interest rates will only reallocate the existing volume of savings in favour of financial savings and leave the total volume of savings unchanged (Mahambare and Balasubramam 2000) and at low levels of income, interest rates are unlikely to stimulate savings because the totality of incomes will be devoted to consumption rather than savings (Ogaki, Ostry, and Reinhart, 1996).

The second criticism of financial liberalization is by the neo-structuralist who argues that because of the reserve requirements of banks, the diversion of funds away from the informal to the formal sector (due to increased interest rates) may lead to the reduction of the total supply of loans to the private sector (Fry 1997). The third criticism is based on the Keynesian critique. For the McKinnon-Shaw school, high interest rates promote savings, investment, and income while for the Keynesian school, a high interest rates policy discourages savings through its negative influence on investment and income (Khatkhate 1988).

2.4 Stability of Banks

Financial stability of the banks requires the financial system, which comprises financial intermediaries, markets and market infrastructures, to be able to tolerate shocks for the foreseeable future (Sinclair, 2000). This is important for all economies, especially those experiencing financial turmoil. A financial system or economy that is resilient to shocks can be identified by its well-operating institutional framework. Institutions that contribute to (or damage, as the case may be) the financial system operating well include banks,

insurers, securities exchange, central banks and national regulators. These institutions conduct economic transactions and promote investments. Therefore, it is crucial that the financial system is sound since it plays a role in the country's economic growth.

In contrast, financial instability frequently leads to a financial crisis. A financial crisis generally occurs when creditors, especially when they are banks, are unable to fulfill their obligations. Usually, a fragile financial system will lead to instability in an economy. This is evident from a weak banking system, insufficient liquidity buffers, low-quality capital, and uneven supervision, lack of effective regulation, fiscal imbalances and macroeconomic vulnerabilities. The SARB (2004) states that financial instability can be triggered by a whole range of developments such as inherent weaknesses in the fabric of the financial system itself, for instance: inadequate banking laws and supervision, quality of the financial system infrastructure, such as lack of transparency and inadequate payment system and the probability of a shock.

According to Bird and Rajan (2001), banking crises seem to be more likely following financial liberalization with sharp increases in domestic lending. Some of the underlying reasons for the crises are identified as (i) banking mismanagement and weak supervisory capacity; (ii) weak credit review and speculative activities by banks (Ribakova, 2005); (iii) lack of regulatory measures in the financial system; and (iv) a fixed exchange rate regime (Noy 2004).

Although evidence on ordinal or continuous stability indicators for the banking system is less comprehensive, some important studies can be noticed. Bordo et al. (2001) develop and examine a discrete financial stress index including time series on business failures,

banking conditions, the real interest rate and a quality spread describing the condition of the US financial sector. Puddu (2008) constructs a real continuous indicator for the US banking system by aggregating balance sheet variables of the commercial banks and examines the impact of different weighting schemes on the replication ability of financial crisis events.

Illing and Liu (2006) develop a financial stress index for the Canadian sector by variance-equal weighting several financial market indicators into one single index. Its calculation for the US and euro-area financial market can be found in Borio and Drehmann (2009); it correctly signals future risks from 2007 onwards. Hanschel and Monnin (2005) both develop and examine a continuous stress index for the Swiss banks by equal-weighting market price, balance sheet, nonpublic and other structural data.

2.5 Financial Liberation and Stability of Banks

Motivated by public policy debates and theoretical predictions, such as Betty and Bailey Jones (2007), the theoretical arguments and country comparisons on the relation between financial liberalization and stability of the banking system are ambiguous. There exist at least two opposing visions, liberalization-stability and liberalization-instability.

In the first point of view, there is a great guidelines literature founded on the traditional view that there are strong arguments and some evidence to argue that financial liberalization is beneficial in the long-term (Ranciere et al., 2003). Arestis (2004) argue that free banking leads to stability of the financial system. Market forces produce stability in the banking and financial systems, as they do in other sections of the economy. At the limit, since there would be no possibility of government bailouts in free banking, any hint

of imprudence would cause customers to shift to competitors. Consequently, the market discipline would be stronger the larger the number of independent note issuers.

According to Venet (1994), financial liberalization was beneficial only on the saving and the investment. With the liberalization of credit rates, it results an increase in the financial saving in waiting in a strong remuneration of deposits. This increase can only stimulate the investment.

According to Mc Kinnon (1973) and Shaw (1973), financial liberalization ensures a better mobilization of capital. In particular, allowing a better adequacy between the investment and the saving, and an acceleration of the process of economic growth. In a study relating to seven Asian countries, Fry (1978) led so that the real credit interest rate affects positively the national saving. Diery and Yasim (1993) concluded that the real credit interest rate acts positively in the constitution of the saving in nine countries of Africa. In the same way, Bandiera and alii (2000), analyzing the impact of financial liberalization on the mobilization of the saving, they found that financial liberalization has a positive and significant direct impact on the saving. By liberalization of the credit rates, and while believing in a strong remuneration, the depositors will resort to save their capital. It results an accumulation of capital what makes it possible the bank to hold a strong financial intensity.

Once the saving is favored (financial saving), the bank can meet all the needs for these customers in term of financing. The investment will be thus favored and each investor finds the optimal financing of his project. If the saving and the investment were the beneficial effect of financial liberalization what it does prevent the economic growth of

Mc Kinnon (1973) and Shaw (1973). According to these two authors, the policy of financial liberalization is work to involve an increase in saving, a stimulation of the investment and thus an economic growth. What escapes from their equation it is the reciprocal behaviour of the two institutions (banks/firms).

2.5.1 Financial Liberation and Instability

Many countries around the world have liberalized their financial sectors, particularly during the 1980s and the (1990s), with the aims of improving financial development and economic growth (Bekaert et al, 2005). However, financial liberalizations are often followed by reckless lending and severe banking crises. One of the most robust outcomes surrounded by literature is that liberalization of domestic financial sector will increase the probability of a banking crisis (Arteta and Eichengreen, 2002) and its shock effect on institutional settings, so the economy will be destabilizing (Kaminsky and Reinhart, 1999).

Demirgüç-Kunt and Detragiache (2001) finds that, after controlling for a myriad of macroeconomic controls, financial liberalization exerts an independent negative effect on the stability of the banking sector, and the magnitude of the effect is not trivial. Arteta and Eichengreen (2002) center on financial liberalization as a determinant of crises and find that domestic financial liberalization] enters with a strong positive coefficient which differs from zero at the 99% confidence level, confirming finding that domestic financial liberalization heightens crisis risk, presumably by facilitating risk taking by intermediaries.

Ranciere, Tornell and Westermann (2006) envisage the relationship among financial liberalization and crises using one proxy for equity market liberalization and another for relaxation of capital account restrictions. Both financial liberalization variables are associated with higher probabilities of banking and currency crises. Betty and Bailey (2007) in their paper they extend a dynamic explanation, by forming the evolution of newly-liberalized bank's opportunities and incentives to take on risk over time. The model proves that financial liberalization, in and of itself, contributes to banking crises and that between an initial period of rapid, low-risk growth and a long-run outcome of a safe banking system, banking systems of emerging markets will experience a transitional period with an increased risk of banking crisis.

Apanard et al. (2010) use a recently updated dataset for financial reforms in 48 countries between 1973 and 2005. They focus on banking crises and argue that they are most likely to occur after some degree, but not full, liberalization. Their empirical results indicate that the relationship between liberalization and banking crises be supported by strongly on the strength of capital regulation and supervision. A rule repercussion is that positive growth-effects of liberalization can be achieved without increasing the risk of a banking crisis if appropriate institutions are developed.

Arestis and Demetriades (1998) argue that even in the most frequently discussed cases of free banking, the system may either have worked because of support emanating from outside the system itself, or it was simply marred by serious problems. Further serious theoretical drawbacks, which spring from two sources, asymmetric information and uncertainty, which are particularly acute in a free banking system.

2.6 Financial Liberalization and Commercial Banks in Kenya

Kenya's sector faced major crises in the 1980s and 1990s, due to under-capitalization, high levels of non-performing loans and weaknesses in corporate governance. NBFIs were most affected, but the number of failing commercial banks increased as well in the 1990s. The crisis culminated in 1992, when - according to Honohan and Laeven (2005) - Kenya suffered formally a systemic banking crisis.

As part of its financial-sector reform, Kenya liberalized interest rates between January 1988 and July 1991 (Isaksson, 2011). Subsequently, market interest rates skyrocketed, while inflation rose even further. When undertaking financial liberalization under conditions of high and unpredictable inflation, interest rates might rise in order to offset anticipated inflation and to balance supply and demand for loanable funds (McKinnon, 1991). Rising domestic interest rates may lead to large capital inflows that in turn cause inflation if not sterilized. High real interest rates also reduce borrower net worth, which has a negative impact on investment and financial intermediation, leading to rising non-performing assets and bank failures. Under such circumstances implementing a financial liberalisation is difficult. Kenyan inflation reached unprecedented levels in 1992-93, forcing the government to attempt to halt it by pursuing restrictive monetary policy. While the Government had managed to control inflation by 1994, real interest rates remained high, indicating a continued high cost of investment. In these circumstances it is high-return, high-risk projects that are financed suggesting instances of adverse selection and moral hazard (Stiglitz and Weiss, 1981).

According to Isaksson (2011), the first donor-supported financial sector reform lasted up to 1991 but was soon followed by further reforms initiated by the government of Kenya itself. They included measures to ensure current and capital account convertibility, notably removal of controls on foreign exchange transactions. The Central Bank increasingly undertook open market operations, improved reserve money management and regulation of the banking system.

In 2003, the Government of Kenya (GoK) published the Economic Recovery Strategy (ERS) paper on Wealth Creation and Employment that defined certain critical high-level objectives that underlied the reform efforts through 2007. In the ERS, the government acknowledged that the banks was experiencing difficulties that would undermine the achievement of the objectives set out in the ERS, including a comparatively high ratio of non-performing loans in some major banks, inadequate competition in the banking sector; persistence of wide interest rate spreads leading to a high cost of credit; insufficient quantities of credit (and poor quality credit assessments); absence of vibrant institutions for provision of long term finance; weak legal arrangements creating long delays in contract enforcement; and weak dispute resolution mechanisms.

Kenya has made substantial progress in improving the stability and efficiency of its banking system. Upgrading of the supervisory framework was accompanied by write-off of non-performing loans and reductions in government's role in the financial sector. Interest spreads, while still high, have come down recently, due to lower loan loss provisions and overhead costs, but also lower profit margins, suggesting a certain degree of competition. This was accompanied by a reduction in inflation and the fiscal deficit and stable exchange rates, which in turn facilitated not only a drop in interest rates, but

also improvements in the government-managed and influenced government institutions. Kenya's financial system, however, continues to face challenges. The banking system is still fragmented, with many small banks serving specific niches, but not contributing to competition in the sector. The outreach of the financial system is still limited (Beck et al., 2009).

In 2007, GOK published "Kenya's Vision 2030" as a long term development plan for the country which puts provision of financial services at the centre of the planned economic growth trajectory through the year 2030. The main objectives that were articulated in Vision 2030 for the financial sector were to (i) improve stability, (ii) enhance efficiency in the delivery of credit and other financial services, and (iii) improve access to financial services and products for a much larger number of Kenyan households. Delivery of these objectives requires implementation of policies that would contribute to stable macro and fiscal positions aimed at lower inflation and financial sector stability.

By African standards and in comparison the other East African economies, Kenya's banks has for many years been credited for its size and diversification. Private Credit to GDP – a standard indicator of financial development, was 23.7% in 2008, compared to a median of 12.3% for Sub-Saharan Africa (Allen et al., 2009). Unlike most other countries in the region, Kenya has a variety of financial institutions and markets – banks, insurance companies, stock and bond markets - that provide an array of financial products.

Notwithstanding this relative advantage, Kenya's financial system has failed to provide adequate access to banking services to the bulk of the population. While the larger proportion of savings comes from small depositors, lending is skewed in favor of large

private and public enterprises in urban areas. Financial services are expensive, as evidenced by high interest rate spreads and account fees.

2.7 Empirical Review

The empirical review covers previous studies on global financial liberalization and financial liberalization in Kenya. Omotola (2013) examined whether trade openness and financial liberalization foster growth. The study aimed at providing time series evidence of the economic growth pattern of Greece and explains the hidden impact of its financial liberalization process since 1960, in terms of the links between trade and gross domestic output. Results from regression estimates find the error correction term (ECT) to be -0.20 for the sampled data. This suggests that there is long-run convergence among financial development, trade openness and domestic output in Greece. This convergence is expected within an average of five cumulative years. Furthermore, the Granger causality test shows that there is a causal relationship between financial development and economic growth, but that financial development has no causal impact on trade in the case of Greece, which is theoretically unexpected. Omotola (2013) concludes that when the financial sector is progressive, domestic output increases, and this increase creates production surplus which can be exported.

Hassan, Benito and Faisal (2013) examined the impact of financial liberalization and foreign Islamic bank entry on the performance of domestic Islamic banks, and credit availability to the private sector. The results indicate that foreign Islamic banks, on average, follow aggressive financing in host countries and enjoy higher net profit margin. banks returns play an important role in the entry decision and presence of foreign banks.

Moreover, favorable macro-economic conditions play a supportive role while higher tax policies play a hostile role for the entry and presence of foreign Islamic banks. The recent financial crisis does not seem to affect the entry decision significantly. But the profitability of domestic Islamic banks has been seriously affected by the recent crisis. Also domestic tax policy and macro-economic environment play important roles in determining the domestic Islamic bank performance. Results also indicate that private sector credit availability seems to suffer because of higher tax and reserve rate.

Triki and Maktouf (2012) investigates the determinants of banking system fragility by underlining the impact of bank liberalization on banking stability during the process of financial liberalization in emerging and developed countries. To this effect, Triki and Maktouf (2012) adopted a panel model with spatial dependency from a transmission channel points towards trade interactions to estimate the parameters of the model on a panel of 40 emerging and developed countries during 1989-2010. The empirical results suggest that financial liberalization has the tendency to stimulate the banking instability in economies. Financial liberalization played a significant role in the transmission of the 1996 to 2002 crisis to emerging market economies and also to American and European countries in 2007 crisis. However, credit growth, a negative Gross Domestic Product (GDP) growth and a high real interest rate are on average the most important causes of a banking crisis. Besides we find that the impact of the determinants differ between whole, advanced economies and emerging economies.

Ayadi and Hyman (2006) examined the liberalization program in Nigeria with a view to finding out whether the level of banking competition is increased after financial liberalization. The results show that retail lending and deposit rates possess a long-run

equilibrium relationship. Moreover, the minimum rediscount (wholesale) rate (MRR) and the deposit rate also exhibit a long-run equilibrium relationship. If the lending and deposit rates diverge from their long-run equilibrium relationship, 37 per cent of the disequilibrium is corrected each quarter by changes in the lending rate. On the other hand, any disequilibrium in the long-run relationship between the deposit and MRRs can be corrected by changes in the MRR at about 58 per cent per quarter. The results imply that the financial liberalization in Nigeria failed to achieve its key objective of a market-driven interest rate system.

Ahmed (2010) examined financial liberalization, financial development and growth linkages in Sub-Saharan African countries. The study used the development in unit root tests and co-integration as applied to panel data and dynamic time series, to estimate the relationship between financial liberalization, financial development and growth. The results obtained from a heterogeneous panel investigation and time series methodology such as Granger causality, indicate a long-run equilibrium relationship between financial development and economic growth. This is consistent with the view that financial development can act as an “engine of growth” and plays a crucial role in the process of economic development. The analysis yielded limited evidence of financial liberalization causing economic growth. However, this is not to say that financial liberalization does not promote growth, as it could do so indirectly through fostering financial development.

IlanNoy (2004) examine what is identified as one of the principal reasons in the occurrence of banking crises: financial liberalization. As it is typically disputed, if liberalization is accompanied by insufficient prudential supervision of the banking sector, it will result in excessive risk taking by financial intermediaries and a subsequent crisis.

Having evaluated the empirical validity of this hypothesis, they argue that such a development is, at worst, only a medium run threat to the health of the banking sector. They find that a more immediate danger is the loss of monopoly power that liberalization typically entails. They base their conclusions on an empirical investigation of a panel-probit model of the occurrence of banking crises using macro-economic, institutional and political data.

Ndirangu, (2008) analyzed the effects of financial liberalization on savings in Kenya during the period 1971 to 2004. The results illustrates that financial liberalization, combined with adequate prudential regulation and strong supervision of banking can breed a sound and deep financial system able to boost savings over an extended period. It also suggests that larger benefits can be reaped when financial reform does not come as an isolated policy action, but is part of a consistent and comprehensive strategy of stabilization and structural reform in the financial sector. The ambiguity in these results perhaps suggests that liberalization process was introduced in a hurry when the financial sector was in crisis and without proper macroeconomic stability. The study recommends that maintenance of a stable financial system is important for the achievement of positive results from the liberalization process. Policy approaches should be geared towards strengthening the legal infrastructure, in order to lower costs and risks associated with non-performing loans, addressing the high intermediation margins. This will make banks attractive to savers hence increasing financial savings.

Simiyu (2009) examined the effect of financial liberalization on the X-efficiency of commercial banks in Kenya. The key findings of the study are as follows: First, after financial liberalization, commercial banks had put in place cost intensive measures to

enhance their outputs (profits) through strategic developments, branch expansion, growth of capital base, and measures to encounter competitive rivalry. During the same period, the sudden observed shift by commercial banks away from the best cost optimization frontier implied that financial liberalization of the banks hardly achieved the desired effects of enhancing the cost efficiency of institutions in the banking sector. Secondly, the three periods' cross-sectional estimates of X-efficiency for big banks were lower than for small banks, suggesting that big banks as a group were more efficient than small banks. Thirdly, the findings based on the Pearson's correlation coefficient measure of persistence indicated that a significant linear relationship existed between X-efficiency and Financial Liberalization. Finally, the findings indicated that the average cost efficiency estimates were significantly different between the post-financial liberalization period and the pre- and during liberalization. In conclusion, financial liberalization in Kenya led to a decline in cost efficiency across the sampled banks.

Bundi (2013) studied the effects that interest rate liberalization, opening of financial sector to foreign investors and credit control elimination has had on private domestic savings in Kenya using annual time series data for the period 1975-2011. The results indicate that interest rate liberalization together with credit control elimination have a negative effect on private domestic saving. Opening of financial sector to foreign investors was found to positively affect private domestic savings. This implies that financial liberalization has worked only through financial intermediation. The results of the study therefore suggest the need to formulate policies to change the negative influence of real deposit interest rate to positive influence and promote financial deepening.

Mwigana (2010) analyzed the effects of financial sector liberalization on financial performance of commercial banks in Kenya for the period 2008- 2012. The financial liberalization index was calculated for the period 1989- 2012. This is because the principal component analysis method that was used in the calculation of the index required data for all the years since the liberalization process started in Kenya so as to calculate the financial liberalization index required for the study period. The study established that financial liberalization policies introduced in Kenya in the late 1980s have had a positive impact on return on equity and return on assets. On the other hand, return on equity and return on assets through financial development have positively and significantly affected financial development. The study recommends continued but careful execution of financial liberalization. Also interest rate spread should be narrowed to balance the market effects between lenders and borrowers.

Ambunya (2003) traced the impact of financial liberalisation on financial deepening and growth through the increment in credit channel to the private sector following financial deregulation. The results show that financial reforms undertaken in Kenya impacted positively on economic performance. There was an improvement in financial deepening but deeper financial liberalization still needs to be undertaken. Credit to the private sector continued to rise. It appears that the outcome of the process of financial liberalization is better than the period of financial repression since access to credit rose following liberalization and other financial services have been developed (financial innovation). Therefore, further liberalization of the sector would be beneficial to growth.

2.8 Chapter Summary

Overall, the empirical literature review suggests that there is mixed effect of financial liberalization on financial stability. Whilst there is a sufficient body of literature in support of the efficacy of the financial liberalization theory, there are theoretical arguments against financial liberalization and whether financial liberalization indeed contributes to bank stability remains an empirical issue. Moreover, given that different countries have different financial infrastructures, such an outcome may differ from country to country and over time.

Besides previous literature shows that interest rate liberalization together with credit control elimination have a negative effect on private domestic saving. Opening of financial sector to foreign investors was found to positively affect private domestic savings. This implies that financial liberalization has worked only through financial intermediation. Prior research has shown that financial liberalization policies introduced in Kenya in the late 1980s have had a positive impact on return on equity and return on assets. This study proposes a test for the relationship between financial liberalization on the stability of banks in Kenya.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This section discusses the research design, target population, research instruments, data collection and data analysis procedures that was used in the study.

3.2 Research Design

The study design was a descriptive survey. According to Schinler and Coopers (2004) descriptive studies are more formalized and typically structured with clearly stated hypotheses or investigative questions. It serves a variety of research objectives such as descriptions of phenomenon or characteristics associated with a subject population, estimates of proportions of a population that have these characteristics and discovery of associations among different variables.

This method is the most appropriate and according to Kombo and Tromp (2006), it provides a “description of the state of affairs as they exist”. It enabled the researcher to collect factual data and also involves classification, analysis, comparison and interpretation. This study targeted all commercial banks in the Kenya banking sector. There are a total of forty four commercial banks in Kenya (CBK, 2014). Census was used because data collected represented all banks in the Kenyan banking sector. Central Bank of Kenya Systematic has database as all banks.

3.3 Data Collection

Secondary data was used in this study. The data was obtained from CBK database as all banks are expected to file their annual financial results with CBK. CBK also collects data macroeconomic performance as pursuant to its monetary policy role. The data collected included: Gross Domestic Product measured as the real GDP value generated within the year, inflation rate as calculated by the annual percentage change in the CPI, exchange rate volatility calculated as the standard deviation of the percentage change in the real US\$/Ksh exchange rate, Treasury Bill rate, non-performance loans from banks' financial statements, and Banking Development index.

3.4 Data Analysis

The research obtained quantitative data. Descriptive and inferential statistics was employed in data analysis with aid of the Statistical Package for Social Sciences (SPSS) package. Descriptive statistics included percentages and measures of central tendency (mean and standard deviation). Paired t-test was used as an inferential statistic. Collected data was analyzed through descriptive statistics. The paired samples t-test is used to determine if two means are different from each other when the two samples that the means are based on were taken from the matched individuals or the same individuals.

3.4.1 Student's t-test Model for the Comparison of Two Means

This test assumes: (a) A normal distribution for the populations of the random errors, (b) there is no significant difference between the standard deviations of both population samples.

The two means and the corresponding standard deviations are calculated by using the following equations (n_A and n_B are the number of measurements in data set A and data set B, respectively):

$$\bar{x}_A = \frac{\sum_{i=1}^{n_A} x_i}{n_A} \quad \bar{x}_B = \frac{\sum_{i=1}^{n_B} x_i}{n_B}$$

$$s_A = \sqrt{\frac{\sum_{i=1}^{n_A} (\bar{x}_A - x_i)^2}{n_A - 1}} \quad s_B = \sqrt{\frac{\sum_{i=1}^{n_B} (\bar{x}_B - x_i)^2}{n_B - 1}}$$

Then, the **pooled** estimate of standard deviation s_{AB} is calculated:

$$s_{AB} = \sqrt{\frac{(n_A - 1) s_A^2 + (n_B - 1) s_B^2}{n_A + n_B - 2}}$$

Finally, the statistic t_{exp} (experimental t value) is calculated:

$$t_{\text{exp}} = \frac{|\bar{x}_A - \bar{x}_B|}{s_{AB} \sqrt{\frac{1}{n_A} + \frac{1}{n_B}}}$$

t_{exp} value is compared with the **critical** (theoretical) t_{th} value corresponding to the given **degree of freedom** N and the confidence level chosen. If $t_{\text{exp}} > t_{\text{th}}$ then H_0 is rejected else H_0 is retained.

The sample means for the respective variables (random, cutoff and conditional) was formulated as follows;

X_a This represented mean before financial liberalization (1968-1990)

X_c This represented mean during financial liberalization (1991)

X_b This represented mean after financial liberalization (1992-2014)

The objective of the study was to examine the effects financial liberalization on the stability of banks in Kenya. The metrics for stability of banks in Kenya will include rate of Inflation, exchange rate volatility, banking development index, treasury bill rate and the GDP growth rate. The financial liberation in Kenya was implemented in the year 1991. The data on the metrics for stability of banks will cover two periods: the period before financial liberalization (1970-1990) and period after financial liberalization (1992-2014). The effects of financial liberalization on the stability of banks in Kenya will be determined the paired samples t-test by comparing means for the period before and after financial liberalization.

The following null hypotheses were tested based on the variables (the rate of inflation, exchange rate volatility, banking development index, Treasury bill rate and the GDP growth rate):

H_1 : There is no effect of financial liberalization on the rate of inflation

H_2 : There is no effect of financial liberalization on the exchange rate volatility

H_3 : There is no effect of financial liberalization on the treasury bill rate

H_4 : There is no effect of financial liberalization on the GDP growth rate

CHAPTER FOUR

DATA ANALYSIS AND INTERPRETATION

4.1 Introduction

This chapter presents the analysis of data and interpretation of the results. The objective of the study was to examine the effects financial liberalization on the stability of banks in Kenya. The independent variables were the rate of inflation, exchange rate volatility, Treasury bill rate and the GDP growth rate. The study employs descriptive statistics (mean and standard deviation) and inferential statistics (Paired t-test) to determine the relationship between financial liberalization and the independent variables.

Appendix ii shows data for inflation rate, exchange rate volatility, Treasury bill rate and GDP growth rate. The data captured the period 1982-2002. Financial liberalization in Kenya took place from the year 1989 to 1995 (Ndung'u, 1997). The period was divided into seven-years-period before financial liberalization, the seven-year-period during financial liberalization and the seven-year-period after financial liberalization in Kenya.

4.2 The Effect of Financial Liberalization on the Rate of Inflation

Tables 4.1 and 4.2 present the findings of the study on influence of financial liberalization and the rate of inflation.

Table 4.1: Descriptive Statistics for Rate of inflation

	Mean	N	Std. Deviation	Std. Error Mean
I.R BL	11.2560106	7	5.42421792	2.05016167
I.R DL	22.1907987	7	13.88347332	5.24745968
I.R AL	7.1957574	7	3.15573472	1.19275561

Key I.R BL: Inflation Rate Before Liberalization

I.R DL: Inflation Rate During Liberalization

I.R AL: Inflation Rate After Liberalization

The study findings in Table 4.1 indicate that highest rate of inflation were recorded during the period of financial liberalization as indicated by a mean of 22.19. The period of financial liberalization also recorded the highest fluctuation in the rate of inflation as indicated by standard deviation of 13.88. The period before financial liberalization recorded higher rates of inflation (mean 11.25, Std. Deviation=5.424) compared to the period after financial liberalization (mean 7.195, Std. Deviation= 3.155).

Table 4.2: Paired Samples T-Test for Rate of inflation

	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Pair 1 I.R BL & I.R DL	-10.93	18.08	6.834	-27.65	5.787	-1.600	6	.161
Pair 2 I.R AL & I.R DL	14.99	12.68	4.793	3.267	26.72	3.129	6	.020

The study findings in Table 4.2 show that the t-calculated of -1.600 at 6 degrees of freedom and 95% confidence interval of the difference for the first pair (periods before and during financial liberalization). The critical t value is 2.37 at 95% confidence interval of the difference. The t-calculated (-1.600) is less than t-critical (2.37) and significance value ($p=0.161$) is greater than 0.05 hence the conclusion that there is no significant relationship between financial liberalization and rates of inflation before financial liberalization.

On the other hand, t-calculated for the period after liberalization was 3.129 (greater than t-critical=2.37 and $p= 0.020$ (less than 0.05). Therefore, therefore financial liberalization had a significant effect on the rates of inflation.

4.3 The Effect of Financial Liberalization on the Exchange Rate Volatility

The study sought to establish the effect of financial liberalization on the exchange rate volatility. The study findings are presented in Tables 4.3 and 4.4.

Table 4.3: Descriptive Statistics for Exchange Rate Volatility

	Mean	N	Std. Deviation	Std. Error Mean
ERV. B.L	24.0724514	7	3.65260885	1.38055638
ERV. D.L	38.3848114	7	16.22761652	6.13346253
ERV. A.L	68.5753586	7	9.65842301	3.65054076

Key
 y ERV. B.L: Exchange Rate Volatility Before Liberalization
 ERV. D.L: Exchange Rate Volatility During Liberalization
 ERV. A.L: Exchange Rate Volatility After Liberalization

From the study findings in Table 4.3, highest Exchange Rate Volatility was recorded in the period after financial liberalization (mean = 68.57, Std. Deviation= 9.658) followed by the period of financial liberalization (mean = 38.38, Std. Deviation=16.22) and lowest exchange rate volatility recorded in the period before financial liberalization (mean = 24.07, Std. Deviation= 3.652). Highest fluctuations were recorded in the period during financial liberalization as indicated by greatest standard deviation of 16.22.

Table 4.4: Paired Samples T-Test for Exchange Rate Volatility

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	ERV. B.L & ERV. D.L	-14.31	18.54	7.008	-31.46	2.836	-2.042	6	.087
Pair 2	ERV. A.L & ERV. D.L	-30.19	7.677	2.901	-37.29	-23.09	-10.408	6	.000

From the study findings in Table 4.4 shows a t-calculated of -2.042 and significance of $p=0.087$ (greater than 0.05) for the period before financial liberalization. Therefore, there was no significant change in exchange rate volatility in the periods before and during financial liberalization.

The t-calculated for the period after financial liberalization was -10.408 and significance (p) value was 0.000 (greater than 0.05). The study concludes that financial liberalization had a significant influence on exchange rate volatility.

4.4 The Effect of Financial Liberalization on the GDP Growth Rate

The study examined the influence of financial liberalization on the GDP growth rate.

Tables 4.5 and 4.6 show the findings of the study.

Table 4.5: Descriptive statistics for GDP growth rate

	Mean	N	Std. Deviation	Std. Error Mean
GDP.BL	5.3286	7	2.00974	.75961
GDP.DL	2.9429	7	2.07353	.78372
GDP.AL	1.2429	7	.63733	.24089

Key GDP.BL: GDP growth rate Before Liberalization
 GDP.DL: GDP growth rate During Liberalization
 GDP.AL: GDP growth rate After Liberalization

The study findings in Table 4.5 show that GDP growth rate was highest in the period before financial liberalization (mean 5.328, Std. Deviation= 2.009) and lowest after financial liberalization (mean 1.242, Std. Deviation=0.6373).

Table 4.6: Paired Samples Test for GDP growth rate

	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Pair 1 GDP.BL - GDP.DL	2.385	3.218	1.216	-.5912	5.362	1.961	6	.098
Pair 2 GDP.DL - GDP.AL	1.700	1.812	.6852	.0233	3.376	2.481	6	.048

The findings in Table 4.6 show a t-calculated value of 1.961 (less than t-critical 2.37) and significance (p) value of 0.098 (greater than 0.05) for GDP growth rates in the period before and after financial liberalization. The findings indicate that there was no

significant relationship between GDP growth rates in the period before financial liberalization and growth rates in the period during financial liberalization.

The t-calculated value for GDP growth rates in periods after financial liberalization was 2.481 (greater than 2.37) and significance (p) value of 0.048 (less than 0.05). The study findings reveal that a significant relationship exist between GDP growth rates in the period during financial liberalization and GDP growth rates in the period after financial liberalization. Therefore, financial liberalization had a significant effect on GDP growth rates.

4.5 The Effect of Financial Liberalization on the Treasury Bill Rate

The study investigated the effect of financial liberalization on the Treasury bill rates. The findings are shown in Table 4.7 and 4.8.

Table 4.7: Descriptive statistics for Treasury bill rate

	Mean	N	Std. Deviation	Std. Error Mean
T.B.R.BL	10.3085714	7	.65955613	.24928878
T.B.R.DL	14.8257143	7	5.83991683	2.20728109
T.B.R.AL	35.5128571	7	4.83340706	1.82685615

Key T.B.R.BL: Treasury bill rate Before Liberalization

T.B.R.DL: Treasury bill rate During Liberalization

T.B.R.AL: Treasury bill rate After Liberalization

The study established that the period after financial liberalization recorded the highest Treasury bill rates (mean= 35.51, Std. Deviation= 4.833) compared to period during financial liberalization recorded (mean= 14.82, Std. Deviation= 5.839) and before financial liberalization (mean=10.30, Std. Deviation= 0.6595).

Table 4.8: Paired Samples T-Test for Treasury bill rate

	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Pair 1 T.B.R.BL - T.B.R.DL	-4.517	5.2871	1.998	-9.406	.3726	-2.26	6	.065
Pair 2 T.B.R.DL - T.B.R.AL	-20.68	2.521	.9530	-23.01	-18.35	-21.7	6	.000

The findings in Table 4.8 show a t-calculated value of -2.26 (less than t-critical 2.37) and significance (p) value of 0.065 (greater than 0.05) for Treasury bill rates in the period before and after financial liberalization. The findings indicate that there was no significant relationship between Treasury bill rates in the period before financial liberalization and Treasury bill rates in the period during financial liberalization.

The t-calculated value for Treasury bill rates in periods after financial liberalization was 21.7 (greater than 2.37) and significance (p) value of 0.000 (less than 0.05). The study findings reveal that a significant relationship exist between Treasury bill rates in the period during financial liberalization and Treasury bill rates in the period after financial liberalization. Therefore, financial liberalization had a significant effect on Treasury bill rates.

4.6 Interpretation of Results

The study examined the effects financial liberalization on the stability of banks in Kenya. The variables under investigation included the rate of inflation, exchange rate volatility, Treasury bill rate and GDP growth rate. The following is the discussion of the study findings.

4.6.1 The Effect of Financial liberalization on Rate of Inflation

The study established that financial liberalization had a significant effect on the rates of inflation (t-calculated = 3.129, p= 0.020). The inferential statistics for the period before financial liberalization (t-calculated = -1.600, p=0.161) were not significant. The descriptive statistics indicated that highest rates of inflation and highest fluctuations in the rates of inflation were recorded during the period of financial liberalization (mean of 22.19, standard deviation of 13.88) compared to the period before financial liberalization (mean 11.25, Std. Deviation=5.424). The rates of inflation significantly dropped but became more stable (less fluctuation) after financial liberalization (mean 7.195, Std. Deviation= 3.155).

A similar study by Kasekende and Atingi-Ego (2003) examined the impact of financial liberalization on the conduct of banking business and its effect on the real sector using Gross Domestic Product and Inflation Rate in quarterly data from 1987Q1 to 1995Q3 as variables. Their findings shows that financial liberalization promoted efficiency gains in the banking industry, increased growth of credit to the private sector, reduced inflation rates and consequently led to economic growth.

4.6.2 The Effect of Financial Liberalization on Exchange Rate Volatility

The study established that financial liberalization had a significant influence on exchange rate volatility as indicated by inferential statistics after financial liberalization (t-calculated= -10.408, p=0.000). The highest exchange rate volatility was recorded in the period after financial liberalization (mean = 68.57, Std. Deviation= 9.658) compared to the period of financial liberalization (mean = 38.38, Std. Deviation=16.22) and the period

before financial liberalization (mean = 24.07, Std. Deviation= 3.652). The study findings revealed that highest fluctuations in exchange rate volatility occurred during financial liberalization (Std. Deviation= 16.22). Despite the increase in the exchange rate volatility after financial liberalization, the rate became more stable in the same period (Std. Deviation= 9.658).

Previous studies support the study findings on the effect of financial liberalization on exchange rate volatility. According to Hufner and Schroder (2002) financial liberalization affects exchange market causing volatility in exchange rates. A change in currency value of a country causes inflationary expectations of prices. Therefore, pass-through seems to be fluctuated by financial liberalization and exchange rate volatility (Hufner and Schroder, 2002).

Similarly, Kohli (2001) argued that change in inflation during financial liberalization is a major determinant of the exchange rate volatility and there is a causality relationship between high inflation and exchange rate fluctuations (Kohli, 2001). Volatility of import price index during liberalization denote a price feedback effect of pass-through on exchange rate volatility (Lafleche, 1996). This volatility states a change in composition of imports and exports generates a fluctuation in foreign exchange market resulting in more volatility of exchange rate (Lafleche, 1996).

4.6.3 The Effect of Financial Liberalization on the GDP Growth Rate

Financial liberalization had a significant effect on GDP growth rates as indicated by inferential statistics in period after financial liberalization (t-calculated= 2.481, p= 0.048). GDP growth rate was highest in the period before financial liberalization (mean 5.328, Std. Deviation= 2.009) and lowest after financial liberalization (mean 1.242, Std.

Deviation=0.6373). However, GDP growth rates became more stable after financial liberalization (Std. Deviation=0.6373) compared to the period before liberalization (Std. Deviation= 2.009) and the period during liberalization (Std. Deviation=2.073).

The study findings on the effects of financial liberalization on GDP growth rates are similar to World Bank (2000) who established that although the financial sector the M2/GDP ratio maintained after the liberalization of interest rates in South Africa in 1980 is slightly lower than the average M2/GDP ratio maintained before the liberalization For example, during the period 1972 to 1980, the average M2/GDP ratio in South Africa was 0.613. During 1981 to 1989, the average M2/GDP decreased to 0.549. According to World Bank (2000) the average annual percentage growth in GDP in South Africa was 2.4%, with the highest growth rate of about 9.2% being recorded in 1980. However, this rate decreased dramatically to an average of about 1.4% during the period 1985-1989.

4.6.4 The Effect of Financial Liberalization on the Treasury Bill Rate

The study further established that financial liberalization had a significant effect on Treasury bill rates (t-calculated = -21.7, p=0.000). The highest Treasury bill rates was recorded in the period after financial liberalization (mean= 35.51) compared to period during financial liberalization recorded (mean= 14.82) and before financial liberalization (mean=10.30). Treasury bill rates recorded highest fluctuations during financial liberalization (Std. Deviation= 5.839) but became more stable after liberalization (Std. Deviation= 4.833).

The study findings is in tandem with previous study by Ndahiriwe, K and Gupta, R. (2008). Ndahiriwe, K and Gupta, R. (2008) investigated the influence of Financial

Liberalization and the Effectiveness of Monetary Policy on House Prices in South Africa. The study used data in the period 1967Q1 to 1983Q3 and Treasury bill rates as one of the variables. The study established that, corresponding to a one standard deviation contractionary structural innovation to the interest rate shock, the real Treasury bill rate increases and then falls steadily. This, in turn, causes the growth rate of output to fall initially and then rise, with the size of the effect being quite small after financial liberalization the response of inflation in real house prices was much more prominent for innovations in the monetary policy, measured by real Treasury bill rate.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary

The study established that financial liberalization had a significant effect on the rate of inflation, exchange rate volatility, Treasury bill rate and GDP growth rate as summarized below:

The highest rates of inflation and highest fluctuations in the rates of inflation were recorded during the period of financial liberalization. Financial liberalization promoted efficiency gains in the banking industry, increased growth of credit to the private sector, reduced inflation rates and consequently led to economic growth. A negative Gross Domestic Product (GDP) growth and high real interest rate are major causes of a banking crisis.

The study recorded the highest exchange rate volatility in the period after financial liberalization. The highest fluctuations in exchange rate volatility occurred during financial liberalization. Despite the increase in the exchange rate volatility after financial liberalization, the rate became more stable in the same period. Financial liberalization affects exchange market causing volatility in exchange rates

The GDP growth rate was highest in the period before financial liberalization and lowest after financial liberalization. However, GDP growth rates became more stable after financial liberalization. The average annual percentage growth in GDP decreases dramatically after financial liberalization.

The highest Treasury bill rates were recorded in the period after financial liberalization. The study recorded the highest fluctuations in Treasury bill rates during financial liberalization but the rates became more stable after liberalization.

5.2 Conclusions

The study concludes that financial liberalization influenced the stability of banks in Kenya. Financial liberalization affected the rate of inflation, exchange rate volatility, Treasury bill rate and GDP growth rate. The highest rates of inflation and highest fluctuations in the rates of inflation were recorded during the period of financial liberalization. The highest exchange rate volatility was recorded in the period after financial liberalization but the rate became more stable in the same period. Despite the fall in GDP growth rates after financial liberalization, the fluctuations in the rates decreased. The highest Treasury bill rates were recorded in the period after financial liberalization and the rates became more stable.

The study further concludes that there is no significant relationship between financial liberalization and rates of inflation before financial liberalization; also, there was no significant change in exchange rate volatility in the periods before and during financial liberalization. Further the study concludes that there was no significant relationship between GDP growth rates in the period before financial liberalization and growth rates in the period during financial liberalization. However, the study established that there was a significant relationship exists between GDP growth rates in the period during financial liberalization and GDP growth rates in the period after financial liberalization. Therefore, financial liberalization had a significant effect on GDP growth rates. Also the study

concludes that there was a significant relationship exists between Treasury bill rates in the period during financial liberalization and Treasury bill rates in the period after financial liberalization. Therefore, financial liberalization had a significant effect on Treasury bill rates.

5.3 Recommendations For Policy Considerations

The study recommends that the central bank of Kenya should come up with a policy package that combines financial liberalization with structural reforms to raise productivity, improve stability of financial institutions and fast-track path to development. Structural reforms that improve macro and microeconomic stability in Kenya can make financial liberalization successful. The study recommends that policies regulating financial liberalization in Kenya should be reviewed with a view to integration with regulation on other economic determinants. This harmonization of policies will ensure that the country realized higher stability in the financial sector due to synergetic effects of harmonized policies

Moreover, the study recommends that, in the harmonization of the legal and regulatory framework on financial liberalization, innovative concepts that support the development and stabilization of the financial market should be supported. In this regard, policy makers should come up with a sound encompassing regulatory framework to control the rate of inflation and exchange rate volatility.

The study also recommends that the central bank of Kenya in discharging the function of exchange rate management should intervene in the foreign exchange market by buying and selling foreign exchange. These actions should not only be done with intentions of

smoothing exchange rate fluctuations but rather, should also be aimed at achieving stability in the exchange rate in order to gain international competitiveness. The foreign exchange rate policy should therefore be a supplementary instrument in effective monetary policy conduct in that the exchange rate sends signals reflecting underlying market fundamentals.

5.4 Limitations of The Study

The study is limited by the fact that the stability of banks is influenced by other variables such as a weak banking system, insufficient liquidity buffers, low- quality capital, and uneven supervision, lack of effective regulation, fiscal imbalances, inadequate banking laws and supervision, weak credit review and speculative activities by banks, quality of the financial system infrastructure, such as lack of transparency and inadequate payment system and the probability of a shock (Noy 2004, Ribakova (2005).

Due to limited time available to carry out the research, the above areas were not comprehensively studied to provide comprehensive results. Therefore, the analysis of the stability of banks could have been comprehensive if there were enough time frameworks.

One other limitation could be due to the little period of the time series data used in the empirical analysis which could have influence statistical analysis.

Finally, the study only concentrated on the financial liberalization on the stability of commercial banks in Kenya and not all the financial institutions in the economy. These results are therefore only limited to the commercial banks and may be of little or no use to the institutions in other sectors (e.g. insurance firms) in the country.

5.5 Suggestions for Further Research

The study recommends further research on the impact of microeconomic determinants on relationship between financial liberalization and growth in the GDP. The research will complement the findings of this study by establishing whether microeconomic determinants have significant influence on the relationship between financial liberalization in Kenya and growth in the GDP.

Also the study recommends further studies to be done on the need to formulate policies to change the negative influence of real deposit interest rate to positive influence and promote financial deepening

The study further proposes that further research should be done to show how interest rate spread influences market effects between lenders and borrowers.

The study has not unearthed a comprehensive insight into the impacts of financial liberalization policies on economic growth. This is due to the fact that the effects of financial liberalization policies on economic growth is a complex process with effects which need to be traced through various sectors of the economy and further research is needed in this direction.

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Appendix i: Letter of introduction



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TO WHOM IT MAY CONCERN

The bearer of this letter EDITH WAGU GACHAU

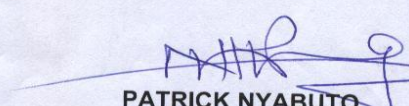
Registration No. DSE 166822/2010

is a bona fide continuing student in the Master of Business Administration (MBA) degree program in this University.

He/she is required to submit as part of his/her coursework assessment a research project report on a management problem. We would like the students to do their projects on real problems affecting firms in Kenya. We would, therefore, appreciate your assistance to enable him/her collect data in your organization.

The results of the report will be used solely for academic purposes and a copy of the same will be availed to the interviewed organizations on request.

Thank you.


PATRICK NYABUTO
MBA ADMINISTRATOR
SCHOOL OF BUSINESS



Appendix ii: Data for Inflation Rate, Exchange Rate Volatility, Treasury Bill Rate and GDP Growth Rate (1982-2002)

Period of Financial Liberalization	Year	Inflation Rate (I.R)	Exchange Rate Volatility (E.R.V)	Treasury Bill Rate (T.B.R)	GDP Growth Rate
Period before Financial Liberalization	1982	20.667	10.92	3.45	5.1
	1983	11.398	13.31	3.68	1.6
	1984	10.284	14.41	4.3	1.6
	1985	13.007	16.43	4.92	4.1
	1986	2.534	16.23	5.98	7
	1987	8.638	16.45	6.65	5.8
	1988	12.265	17.75	7.18	6.1
Period during Financial Liberalization	1989	13.789	20.57	7.98	5.2
	1990	17.782	22.91	10.1	5
	1991	20.084	27.51	11.9	4.5
	1992	27.332	32.22	13.8	2.2
	1993	45.979	58.00	15	0.5
	1994	28.814	56.05	20.5	0.2
	1995	1.554	51.43	24.5	3
Period after Financial Liberalization	1996	8.864	57.11	27.4	4.8
	1997	11.362	58.73	31.39	4.6
	1998	6.722	60.37	34.5	2.4
	1999	5.742	70.33	37.2	1.8
	2000	9.980	76.18	38	1.4
	2001	5.739	78.56	38.3	-0.2
	2002	1.961	78.75	41.8	0.5

Source: Central Bank of Kenya (2014).