INTEREST RATES UNDER THE TREASURY BILL REGIME: POTENTIAL IMPLICATION ON THE FINANCIAL PERFORMANCE OF COMMERCIAL BANKS

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DECLARATION

This project is my original work and has not been presented for a degree in any other University.

SIGNED ..... **DATE**...10/7/2003

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

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DEDICATION

This study is dedicated to my Husband, Mwai and daughter Brenda whose encouragement and understanding has brought me this far

May God bless them.

ACKNOWLEDGEMENT

I will ever feel indebted to all those who accompanied me on this taxing journey to the completion of MBA Programme.

To my Supervisor, Mr. Karanja, Thank you for your guidance through this maze of the project. I am also grateful to the staff of Faculty of commerce and especially Mr. Kariuki HD, Mwachiti and Mr. Mburu for their assistance.

I would also like to thank my friends and colleagues in MBA class for their social and academic environment they provided for the two years of my study. Lucy, Lutomia, Moses, Mary, Katete, Mwambingu and others, I say a BIG thank you.

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ABSTRACT

This study set out to achieve the following objectives. The potential impact of the Central Bank of Kenya (Amendment Act) on the financial performance of commercial banks and whether performance depends on size of the bank.

Though the CBK(Amendment)Act was declared null and void in February 2002,as it had ex post facto(retrospective) operations contrary to Sec 77(4)of the constitution, the high court failed to declare it unconstitutional. Accordingly ,this means that only a new commencement date need to be established.

Arguments for and against the Act have been raised without an critical analysis. .Ochoro(2002) recommends that empirical analysis should be taken to clear the differing views.This study was undertaken with a view of of determining whether the position held by banks of decrease in profitability is true or not.

Performance of banks in year 2001 (the proposed commencement date had the Bill been adopted) was evaluated. The assumption here is that performance in that year will capture the picture that would be of interest to investors and banks and other interested persons.

Deposit rate and lending rates were adjusted as per the Act. Secondary data obtained from published sources was used for the study.

The results of the study indicate that control of interest rates would result to decrease in financial performance of commercial banks

1.00 CHAPTER ONE : INTRODUCTION

1.01 BACKGROUND

As the world embraces the concept of a free economy, the banking sector remains heavily regulated. Thygerson (1992) notes that one possible rationale for regulations of financial services is that it is a public good. The public good theory of regulation holds that regulation is justified to correct an alleged or proven deficiency in the competitive market process. He further notes that regulation increases competition, reduce information asymmetries, reduce potential for insider abuse and fraud, promote safety and soundness and support monetary policy goals among others.

Banking regulation falls into four categories: licensing, pricing (interest rates) credit allocation and prudential regulation.

Licensing: Certain requirements must be satisfied for a bank to start operating. Currently in Kenya banks are required to start operating with a capital of Kshs 500 m and the existing banks are required to top their capital to the same figure by year 2002 (Bank supervision report, 1998).

Credit allocation: As part of their roles banks collect funds from surplus spending units and lend to deficit spending units. Regulators have occasionally altered the lending powers of financial institutional to encourage credit allocation towards what is socially desirable eg owning a home in U.S.

Prudential regulations: These are regulations that relate to mergers, amalgamations, prohibited businesses, enforcement of Banking laws and money laundering among others.

Pricing regulations: These regulations relate to control of deposit rates and lending rates. Prior to 1992, interest rates were being regulated by Ministry of Finance, but were later liberalized to be determined by forces of supply and demand.

Interest rates on lending have remained relatively high. In year 2000, lending rates averaged 24% while deposit rates ranged between 7% -15% (Bank supervision report, 2000). The spread between the two rates has sparked a lot of debate concerning the regulation of interest rates. Specifically the debate is whether or not the deposit and lending interest rates should be pegged to the 91 – day Treasury bill rate in the country. The 2001 Central bank Amendment bill, popularly referred to as the Donde bill, was passed by parliament in December 2000. The Act requires nominal interest rates to be pegged to the 91 days treasury bill rates by maintaining a constant margin between the lending rates and deposit rates. Depositors would be paid at 70% of the 91 days treasury bill rate, while lending would be at 4% above the 91 days treasury bill rate. (see appendix 1).

The Amendment bill seeks to replace section 39 of chapter 491 of the laws of Kenya that established the Central Bank of Kenya as revised in 1984. This section empowered the central Bank "…. Acting in consultation with the Minister, determine and publish maximum and minimum rates of interest which specified banks or specified financial institutions may pay on deposit and charge for loans or advances …" (See Appendix II).

1.02 INTEREST RATE CONTROLS

Interest rate controls date back to 16th century. Interest theory dating back to time of Aristotle held that interest was primarily means of exploiting those who were forced by temporary hardship to resort to borrowing. It is in this view that led to legal and religious restrictions on interest charges that existed through much of the history of Western culture.

In U.S, the first statute fixing the maximum interest rate at 8% was enacted by Massachussetts in 1641.

Other economies in the world have also regulated their interest rates on deposits and loans. In Kenya interest rates were regulated upto July 1991 when they were liberalised (to be then determined by forces of supply and demand).

CASE FOR CONTROL

In U.S banking system, the Banking Act of 1933 authorized regulation Q which placed ceilings on allowable interest rates for time and saving deposits and prohibited the payments of interest on demand deposits. Regulation Q was intended to maintain banks profitability by limiting competition for funds among banks and guaranteeing a reasonable spread between interest rate on loans and interest rates paid to depositors.

Proponents of the regulation of interest rate in Kenya argue that low deposit rates discourages savings thus limiting the supplies of resources for investment, on one hand. On the other hand, high lending rates discourage investments funded by borrowing. These dual effect of supply and demand for loanable funds contribute to the cyclical decline in investment rates employment and hence the depression in the economy (Ochoro, 2002), Ochoro notes that this is a conclusion of considerable interest to the public in the light of the cyclical decline that the economy has experienced in recent times. Internal generation of investment finance has become critical in view of the fact that the country has found it increasingly difficult to access external resources. This is therefore a position that is worthy of support.

It has also been argued that prohibiting interest payments on demand deposits is necessary to keep banks from making risky loans in an effort to offset the interest expense.

Dr. Ndii (1997) says that interest rate intervention should only be one of the options. It should be regulated only if there is a run in the financial sector as it happened in Mexico in 1995.

Others who are against the interest rates regulation argue the inconsistency of regulation in a liberalizing economy in which prices are to be determined by market forces. Some claim that the narrowing of the spread between the two rates constrain the profitability of the banking industry at a time when, banks like all other sectors of the economy are suffering in the depressed economic environment. Ochoro (2002) notes that this argument suggest that the elasticity of the banking profits with respect

to spread between deposit rates and lending rates is positive. On the contrary banks reported healthy performance over the 1980s when the spread was relatively low than in the mid 1990s when the spread was relatively much wider. Ochoro is then inclined to the thesis that elasticity of banking profits with respect to the spread between the deposit is negative and if this is the case then, the position held by banks is not reasonable under the assumption that they pursue profit objectives.

Matu (2001) in his study "applicability of financial crisis predictive model to Bank failures in Kenya" recommends that interest rates should be reduced as high interest rate is one major costs of Bank failures.

CASE AGAINST CONTROL

Benston (1964) shows that ceilings on rates paid on time and saving deposits have the effect of raising transaction costs, as financial intermediaries and consumers attempt to evade the restrictions.

Bowsher (1975) and Benston (1975) show that interest rate regulations tend to misallocate resources. Financial intermediaries shift their funds to larger loans since these have lower operating costs per shillings loaned. Smaller consumer loans are therefore not offered and this may lead to disintermediation.

While large banks have capability of financial innovations, small banks, don't have the capability and so can easily fail. This argument by small banks in U.S led to abolition of regulation Q in 1980.

Kinyua (1997) argues that interest rate intervention reduces effectiveness of price mechanism and can lead to permanent distortion in the flow of funds and maldistribution of available financial resources. In long run, this leads to economic growth below the real potential of the economy. He also argues that setting interest rate ceiling encourages banks to introduce hidden charges in order to circumvent official capping.

1.03 DETERMINANTS OF INTEREST RATES

Money as a medium of exchange is a scarce commodity. Those who borrow money pay a price for it. This price is generally referred to as interest. Interest rates are thus prices paid by borrowers (who have needs of various sorts for such advances) to lenders of money (who can postpone their expenditure to some future date). Thus depositors with banks truly lend to banks who then trade with the money until the original owners recall the loans. The banks lend to both private sector and public sector entities at some interest rate. The margin between the deposit rates and banks lending rates reflect a number of factors. The banks themselves utilize their own productive inputs purchased in the open markets. In their conduct of this financial mediation role, they need to cover their expenses on the latter and earn profits on the former in addition to meeting their obligations to the depositors.

All businesses have risks and so banks are no exceptions. Depositors of money in banks face the risks of collapsed banks. Banks also face the risk of defaulting borrowers. Thus the interest rate charges, in both cases contain some risk premia.

Ndung'u (1997) gives the traditional relationship of determining interest rates as:

Rn = Rr + Rf + Pr + Pu + d

Rn = Interest rate (on loan) in nominal terms

Rr = Real interest rate to cover cost of using money.

Rf = Expected rate of inflation in some appropriate future period.

Pr = Premium for riskiness associated with a given undertaking

Pu = Additional premium to cover general economic uncertainty in a country.

d = disturbance factor reflecting whatever else that cannot be explained by any of the variables above.

Real interest rate (Rr) is affected by expenditure requirements for banks. Banks are required to maintain a certain level of cash with central Bank and since this deposit does not earn any interest this translates into an opportunity cost of money held.

Operating costs that include monitoring of loans also affect the real interest rates. Thus overall cost of banking business has a direct impact on real interest rates

TABLE 1

BANK INTEREST COST STRUCTURE

Base year 1999	Total Industry (46%)	Top 16 Banks (16%)	Other Banks (30%)	Corporate Network Banks (11%)	(5%)
Comprises:					
Direct cost of funds	6.82	5.95	11.13	6.25	3.25
Cost of Liquidity	1.75	1.75	1.75	1.75	1.75
Cost of cash Holding	1.00	1.00	1.00	1.00	1.00
Funding Cost	9.57	8.70	13.88	9.00	6.00
Direct operating cost	10.37	10.99	7.37	7.28	12.41
Base funding cost	19.94	19.69	21.25	16.28	18.41
Non performing Loans-Funding cost	5.31	5.12	6.30	2.24	5.65
Potential Base Rate	25.25	24.81	27.55	18.52	24.06

Average Overdraft Rate 1999-CBK Computation..... 25.60

This computation is based on the 1999 published figures and the average for different types of Banks.

SOURCE : CBK STATISTICAL BULLETINS

In inflationary conditions, money loose value. If inflation is expected to rise, lending rates (nominal) will also tend to increase. In a country which has experienced severe inflation there is a general lack of confidence that future inflation may be less, so a higher level of inflation is the more likely perceived situation by banks when considering interest .Kenya experienced inflation in 1992-1993 when interest rates rose sharply. The situation persisted for sometime with banks charging high interest rates.

Different investments undertaken by borrowers of money have different risks. A relatively high premium will be charged for risky investments than those with low risk. Today agricultural investments are being considered to be more risky and so they carry a high premium.

The general future economy of a country cannot be known with certainty. Political risks may impact a country negatively. Thus general economic uncertainty is captured in interest rates.

Thus nominal interest rates captures many factors that can be identified and also contains a premium for those that cannot be identified.

On the other hand of deposits, investors are paid real interest rate (Rr) in a stable environment. In an unstable environment high rates are charged on deposits.

In general there are many factors that affect the interest rates.

Default risk. This is the chance that the borrower may not live up to the terms and conditions of the loan agreement, resulting in financial loss to the lender. A high chance of default translates into higher lending rate.

Maturity risk: The longer the loan takes to mature, the higher the risk. Inflationary conditions may set in making the money lent out to loose value. So the longer the maturity the higher the interest rate and vice versa.

Investment risk: Some investments are considered to be more risky than others and so loans on such, attract high interest rates.

General risk: In any country general risk concerning the economy is inevitable. Loans carry a premium on such general risks.

Exchange rate risks: Exchange rates keep on fluctuating. Under stable conditions, where exchange rates are expected to remain relatively stable, low interest rates are charged.

1.1 STATEMENT OF THE PROBLEM

Banks primarily exist to intermediate between savers (depositors) and borrowers in the most cost effective manner. Banks like other commercial enterprises seek to maximise their owners wealth. In a perfectly competitive market, banks will charge an interest rate which is equal to the marginal cost of funds. Consequently all banks will make normal profits. In a monopolistic market however, banks are capable of earning abnormal profits. Further they may lack the incentive to manage their costs resulting in high loan prices and thus a big spread between deposit and lending rates.

Interest rates are critical in most economies because they have direct effects on macro economic variables such as output, investment consumption etc.

High interest rates on loan means high cost of production On the other hand, savers look at interest rate as incentive to postpone their consumption and place money in banks. Government also pays interests on loans borrowed to finance its deficits which in turn influence its allocation of public goods. Being profit oriented, banks seek to obtain deposits at low costs and lend at the highest interest rates possible. However, in a perfectly competitive market, no bank can earn abnormal returns. Hence the interest rate spread would reflect the least transaction costs.

There has been a greater concern that interest rate spread is too wide and it is on this basis that Hon. Joe Donde initiated the Central Bank (Amendment) Act 2000 Bill to regulate the interest rates.

Proponents of the bill argue that low lending rates will help boost the economy through increased investment.

Bankers on the other hand feel that in a free economy interest rates should be determined by forces of supply and demand and that the regulation will reduce their profit margins hence their ability to survive ie deliver services.

The purpose of this study is to find the potential implications of the Act on the financial performance of commercial banks.

1.2 OBJECTIVE OF THE STUDY:

The study is undertaken to:

i) Determine the potential implication of the Act, on performance of commercial banks.

ii) Determine whether performance of banks depend on the size of the banks.

1.3 IMPORTANCE OF THE STUDY

This study is expected to be of importance to

1. **Central Bank**

As the country's Banking sector regulator and supervisor, the CBK will be challenged to critically, assess means of curbing bank run and thus closure of banks.

2. **Government policy makers.**

These will have a picture of repercussions in case of interest rate controls.

3. **Bank Management**

The study will show the management the extent to which profits would decrease and this will stimulate them into financial innovations so as to increase investor wealth.

4. **Academic Researchers**

These will be able to extend the study to the impact on the economy as a whole.

5. **Investors and general public at large.**

Rational investors will have to make a decision whether to continue holding their interest on these banks or not.

1.4 DEFINITION OF TERMS

For the purpose of this study:

1. Financial institutions will be taken to mean commercial banks and non-banking financial institutions which are licensed to operate in Kenya.
2. Banking Act Chapter 488 defines
   i) "Bank" as a company which carries on or proposes to carry on banking business in Kenya and includes the cooperative Bank of Kenya but does not include the Central Bank.
   ii) A financial institution or non-banking financial institutional "as a company other than bank which carries on or proposes to carry on financial business and includes any other company which the minister may by notice in the gazette declare to be a financial institution for the purposes of this Act".
   iii) Financial business as

a) "The art of accepting from members of the public of money on deposit repayable on demand or at expiry of a fixed period or after notice and

b) the employing of money held on deposit or any part of the money by lending, investment or in any other manner for the account and at risk of the person so employing the money.

3. Performance of the bank will be taken to mean the absolute net profit or net loss.

4. Financial intermediation

This is the mobilization of funds from entities with surplus funds and channeling them to the deficit spending units.

2.00 CHAPTER TWO : LITERATURE REVIEW

2.01 FUNCTIONS & GOALS OF FINANCIAL INSTITUTIONS

Importance of a country's financial sector cannot be overemphasized. Meulendkye (1998) observed that depository institutions play a key role in the transmission of monetary policy to the financial markets, borrowers and depositors and ultimately to the real economy.

Banks as financial intermediaries have an important role to play in society. They issue "securities" to those from whom funds have been entrusted and accept securities from those to whom have been loaned or invested. Thus they act as a buffer between the suppliers and users of funds, gathering funds in quantity and on terms that are acceptable to savers and supplying funds in quantities and on terms agreeable to users (Saunders, 1999).

In addition banks play a role in the following areas:

Transaction aid: Banks act as agent for their customers in the purchase or sale of stock Exchange Securities, transact foreign exchange business, obtaining foreign currency for customers or exchanging foreign currency for customer, issuing traveler's cheques etc.

Act as agents for payments: Commercial Banks permit their customers to have current accounts on which they can draw without notice by cheque. They act as conduits for payment.

Capital Acquisition: For economic growth of any economy, banks need to acquire capital that will be invested in the appropriate projects. To acquire capital, banks have time and savings deposit that pay interests.

Banks also exist to transform quality of assets. They do this through:

Asset diversification: They enable investor to diversify risk by them (banks) investing in many assets thus reducing risk.

Assets risk (credit –risk) evaluation: Banks exist to enable the evaluation of assets risks which may be tricky for the ordinary investor.

Banks like any other enterprise seek to maximise its value to both the creditors and shareholders. They provide a medium for transforming deposits into loans.

2.02 FINANCIAL INSTITUTIONS EFFICIENCY:

Efficiency of financial market participants like bank is determined by the statute that creates them. This is legal efficiency.

Efficiency of financial institutions is important to general public. In the eyes of a general investor banks are efficient if he can get his money and any more he needs to borrow as often as he needs it and at an affordable price.

Indicators of efficiency in banks may be through any of the following.

- Their continued presence in a market allows the development of repetition capital that allows them to demand proprietary information useful in assessing the borrowers credit risk while credibly promising to keep the information confidential.
- They reduce search costs (which can be borne by individual borrowers and lenders) through economies associated with centralized information production. They do this by acting as clearing house. The information the bank acquires as part of an on going deposit relationship with a customer provides the bank with a comparative cost advantage in originating and monitoring commercial loans (Miller. 1993).

As financial intermediaries, banks are able to achieve economies as a consequence of specialization.

Banks need to be efficient for the following reasons:

- An efficient financial institution ensures that excess funds in the economy are expediently collected and channelled to Deficit Spending Units (DSUs) for timely investment in viable projects thereby leading to economic growth.
- It also ensures that interest rates on loans and deposits are competitive, and this encourages borrowers and lenders to actively participate in the market.
- An efficient financial system builds confidence in participants which then leads to innovations and improved services.
- An efficient financial system is less costly in terms of regulation and control.
- An efficient financial system has greater positive impact on economic development.

2.03 FACTORS INFLUENCING BANK EFFICIENCY

Depository institutions are regulated to promote greater efficiency in the performance of banking industry in particular and in the functioning of an economy as well.

1) Technical efficiency

Miller (1995) views depository institutions as being technically efficient when they provide their services at lowest possible cost in terms of social resources that they expend in process. Broader efficiency is gained when these institutions promote as fully as possible social gains from financial intermediation process. When depository institution perform their basic function of accumulating capital and then lending it for production of goods and services, smoothly and efficiently such that the society does not loose, they are said to be technically efficient.

2) Allocative efficiency

Depository institutions are said to be allocatively efficient if they set the price of their services at the additional cost incurred in providing the last unit of service they produce.

Vanhoose (1999) extends this to efficient structure theories, that this leads to large market shares by banks. The theory also says that these banks are more profitable. Studies done in 1980's confirmed that market share determines the profits each firms earns. These studies argued that bank market share reflected the relative efficiency of the banks competing in the banking market.

2.04 INTEREST RATE THEORIES

There are several approaches to theories of interest. Some attempt to explain the interest rate in stationary economy, others comprise theories that are from a dynamic economy in which new investments and saving take place.

1. Irwin fishers theory of interest

Fishers theory of interest in based on two fundamentals concepts of "market principle" namely:

- Time preference – where present goods are valued more highly than future goods.
- Investment opportunity: - effect of investing on income streams

Fisher also notes that uncertainty affects the result under the two concepts.
He assumed perfect foresight ie current and future income flowing to an individual is given.He showed that it is possible to determine the demand for and the supply of funds on the part of each individual.

The equilibrium between supply and demand on capital market establishes a rate of return on investment and the time preference for each individual. Thus allocation of income between present and future consumption has a role to play in the determination of the level of interest rate.

Fisher considered several periods in which interest changes, and came up with the problem of the structure of interests rates. It cannot be known in advance the interest

rate for future periods, but there are quotations of interest rates on loans of different maturates e.g. rates on one year loans etc.

Again Fisher assumed perfect foresight and ignored costs arising from loans. He regarded the rate of interest on a long term loan as an average (geometric) of successive short term rates over the same time span.Thus the determination of short term rates for the future simultaneously determines the structure of interest rates prevailing in the present time.

Disregarding the assumption of perfect foresight Fisher realised that the rate of interest was influenced by new factors especially risk and liquidity of investments. Deficiency in Fishers theory has been stated as follows "Fishers theory is a partial equilibrium theory in that he confines himself entirely to the analysis of the capital market and works with assumption that the prices of goods and services are already determined".
Fisher laid down the relationship between interest rate and expected inflation.

The relationship termed as "Fisher effect" states as follows: The nominal rate of interest reflects the real rate of interest and a premium based on the expected rate of inflation. Thus:

$$i = r + Pe$$

Where

i = the nominal rate of interest

r = the real rate of interest

pe = the anticipated or expected inflation

Distinction is important because the real interest rate which reflects the real cost of borrowing, is likely to be a better indicator of the incentives to borrow and lend and a better guide to how people will be affected by what is happening in the credit market. Mishkin (2001) observes that after-tax rate of interest provides a better measure.

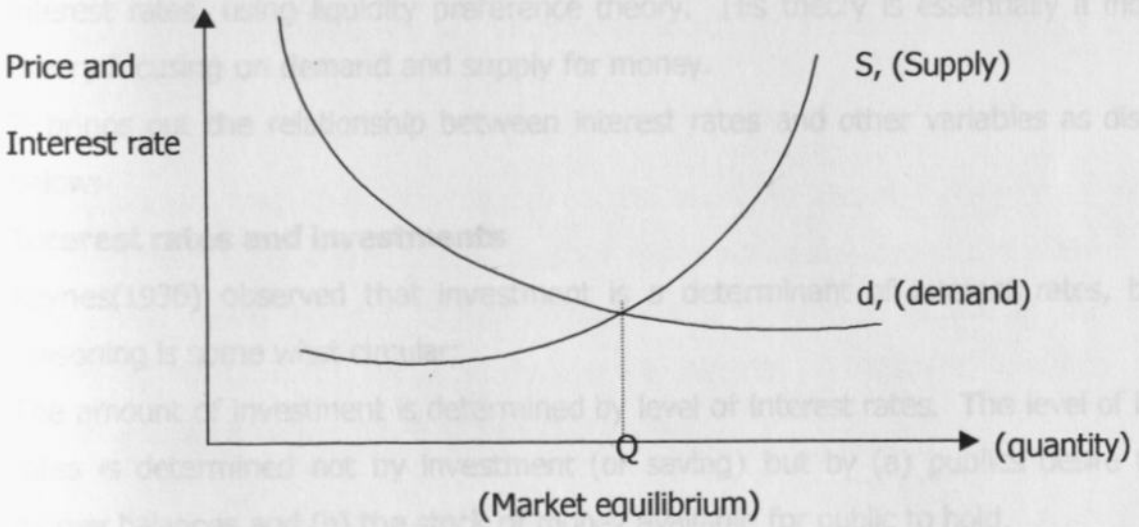
2. Loanable funds theory

This theory was propagated by a Swedish scholar Bentil Ohlin. It suggests that interest rate is determined by supply and demand of funds in the market of credit. This theory has been found more useful than others in forecasting changes in interest rates.

The loanable funds framework is based on an analysis for credit demand by sector, type of security offered, the amount of loanable funds supplied and the type of security the investors will prefer. According to this theory participants in the economy can be categorised into borrowers and lenders of funds. These include, households, firms or businesses, the central Bank and foreign sector.

In considering the bond market for example, the analysis of interest rate determination looks at supply and demand in the bond market. Demand curve depicts the quantity of bonds demanded at specific prices (and interest rates), while the supply curve shows the relationship between quantity supplied and price, all other economic variables held constant.

At market equilibrium, the quantity demanded equals the amount people are willing to supply and this is the market determined interest rate in the bond market.



Demand and Supply curve for bonds:

Demand curve may shift due to any of the following parameters.

First Wealth: This refers to the state of the economy. During boom period demand curve will shift upwards but during recession it will shift downwards.

Secondly Expected interest rate on bonds.

Thirdly Risks of bonds relative to alternative assets.

Fourthly Liquidity of bonds relative to other assets.

An increase in factors first and fourth factors will cause an increase in interest rates while an increase in factors 2 and 3 will cause a decrease in rates.

Supply curve will be affected by the following factors:

Firstly Expected profitability of investment opportunities

Secondly Expected inflation and government activities

Thirdly Government activities.

An increase in all these factors leads to an increase in quantity supplied and vice versa.

3. Keynes Theory of Interest

John Maynard Keynes (1936) brought in other variables in the determination of level of interest rates, using liquidity preference theory. His theory is essentially a monetary theory focusing on demand and supply for money.

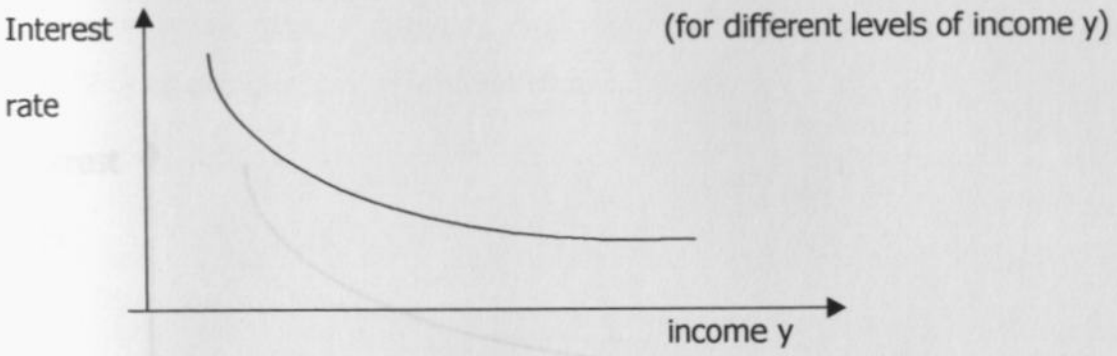
It brings out the relationship between interest rates and other variables as discussed below:

Interest rates and investments

Keynes(1936) observed that investment is a determinant of interest rates, but the reasoning is some what circular;

The amount of investment is determined by level of interest rates. The level of interest rates is determined not by investment (or saving) but by (a) publics desire to hold money balances and (b) the stock of money available for public to hold.

He however notes that as income increases, due to increase in investment, interest rate reduces as depicted below:



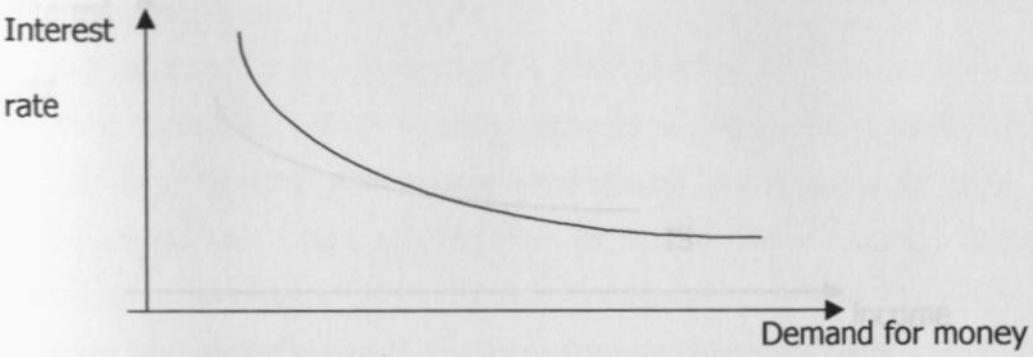
Interest rate / income curve

Interest rate and demand

The simplest theory of demand is based on the increasing marginal utility for money ie utility maximising asset holder will plan to hold the money to the extent that the money offers expended net return over its opportunity cost (interest rate). The expected returns to money holding are the convenience yielded by ready cash, the avoidance of cost of credit incurred if the payment of bills is delayed until non – liquid assets are realised. The marginal utility of money is expected to decrease as the stock of money held increases.

The expected cost of holding money is the expected return foregone on the most lucrative asset otherwise acquired, plus the expected capital loss of the value of money held (Time preference for money considerations causing a decline in the value of money eg inflation risks etc). As the rates of interest on borrowed funds go up, the net returns decline thus more money is acquired.

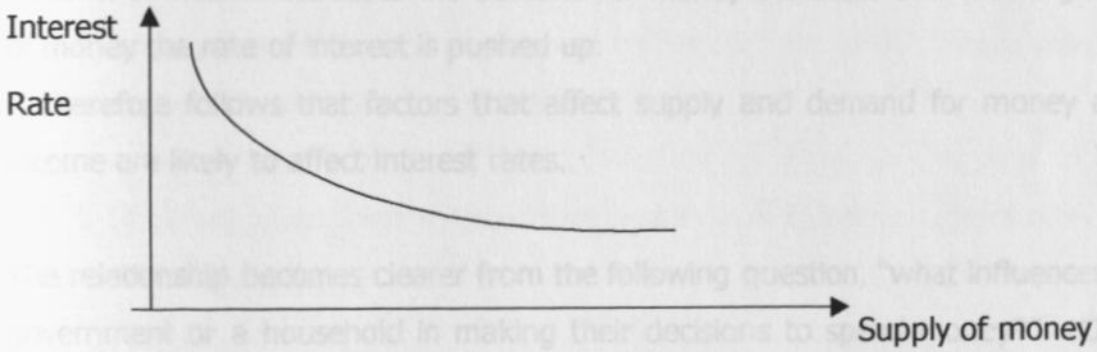
The relationship between rate of interest and demand for money is therefore as shown below:



Interest rate and demand curve

Interest rate and supply

An increase in money supply eg due to expansionary monetary policy will shift the supply curve for money to the right and interest rates will decline. This is the liquidity effect. The relationship between rate of interest and supply for money as developed by economists is depicted below:

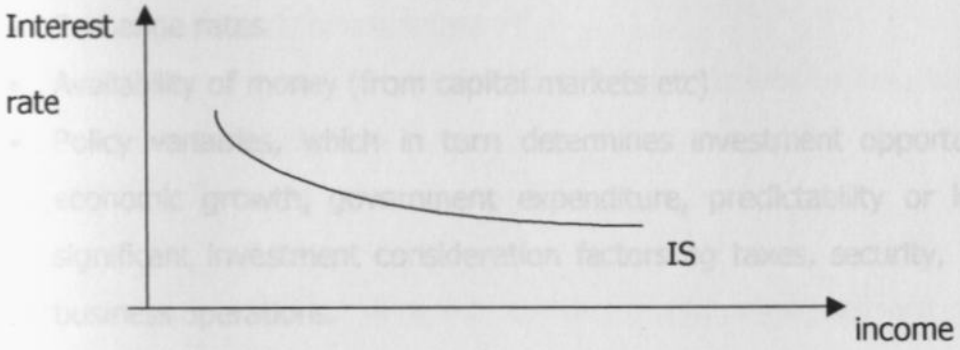


Interest rate supply curve:

The equilibrium rate of interest is whereby demand for money equals supply for money.

Interest rate and income

Macro economic theory suggests that the relationship between interest rates and income is as depicted in the function below:



Income/saving (IS) curve

Keynes views two possible reasons why income would affect demand for money.

- As economy expands and income rises, wealth increases and people will want to hold more money as a store for value.
- People will also want to carry out more transactions using money, resulting to people holding more money. Thus higher level of income causes the demand for money to increase.

As level of income increases the demand for money increases and with a given supply of money the rate of interest is pushed up.

It therefore follows that factors that affect supply and demand for money as well as income are likely to affect interest rates.

The relationship becomes clearer from the following question, "what influences a firm, a government or a household in making their decisions to spend money?" One of the influences must be the price of holding money ie the cost of not spending the money which is by definition the interest rate.

The works of fisher, Ohio and Keynes and other economists such as Hahns, FH and Hicks J.R have brought out the underlying factors that affect interest rates.

These are:

- Income levels and rate of savings

- Expenditure requirements (by households, firm, government etc)
- Availability of goods for purchase
- Price levels
- Exchange rates
- Availability of money (from capital markets etc)
- Policy variables, which in turn determines investment opportunities, the rate of economic growth, government expenditure, predictability or level of stability of significant investment consideration factors eg taxes, security, legislation affecting business operations.
- Risks and uncertainties on the future course of interest rates.

TERM STRUCTURE OF INTERESTS

Generally speaking it is common practice to speak of "interest rate" as if there was only one.There are however different securities in the capital markets each having different maturity date and this affects their yield. The relationship at a specific time, between yields on securities and their maturities is called the term structure of interest rates represented graphically as the yield curve.

Thus what is usually meant by the interest rate is the rate on 91 days government debt instrument with no risk premium for default.

Auerbach (1988) gives three theories that explain how the general level of interest rate is determined.

1. Pure expectations theory

It holds that yield curve depends on expectation of factors that affect the expected return and the expected risk eg inflation, political conditions etc. For example, if annual rate of inflation is expected to increase then the yield curve would be upward sloping and vice versa. The main weakness of this theory is that it does not state factors that

affect expectations and it suggests that the issuers of securities have no influence on the term structure.

2. Liquidity preference theory

It holds that most investors prefer short-term securities to long term securities which are considered riskier, thus they would demand a premium for holding the long term securities.

Users of funds react the opposite way and would pay a premium on long term funds. Researchers have not agreed on the nature of these premiums. Thus the yield curve according to this theory is upward sloping.

3 Market Segmentation theory

This theory argues that the short term and the long term markets are separate and distinct because of investors maturity preference. The slope of the yield curve then depends on the supply and demand conditions in both markets for example, an upward sloping curve occurs when there is excess supply of funds relative to demand in the short term market, but a relative shortage in the long term market.

There are still other theories coming upon the yield curves. Researchers and economist have not agreed on any single of the theories but they do still provide a valuable insight to managers to enhance their overall understanding of interest rates.

2.05 ECONOMIC BEHAVIOUR OF FINANCIAL INSTITUTIONS

Banks and other depositing institutions seek to maximize their economic profits. (Economic profits refers to difference between revenues and economic costs which

includes both explicit costs and implicit opportunity costs a firm incurs by being in its chosen line of business instead of an alternative line of business). For banks to earn economic profit they must at least receive deposits from customers and issue them as commercial loan. Thus if a bank receives a dollar amount of deposit Dj and makes dollar amount of loans Lj, then the two must be equal:

That is Lj = Dj

The above equation is the Balance sheet constraint that says that a bank cannot issue more loans than deposits. Indeed, assets and liabilities must be equal and so loans must be equal to deposits.It is on the basis of balance sheet constraint that banks behave in a certain manner so as to earn economic profits.

Miller & Vanhoose (1995) look at this behaviour by applying theories of firm behaviour under perfect competition and monopoly.

i) DEPOSITORY INSTITUTIONS IN COMPETITIVE MARKETS

In a competitive banking market:

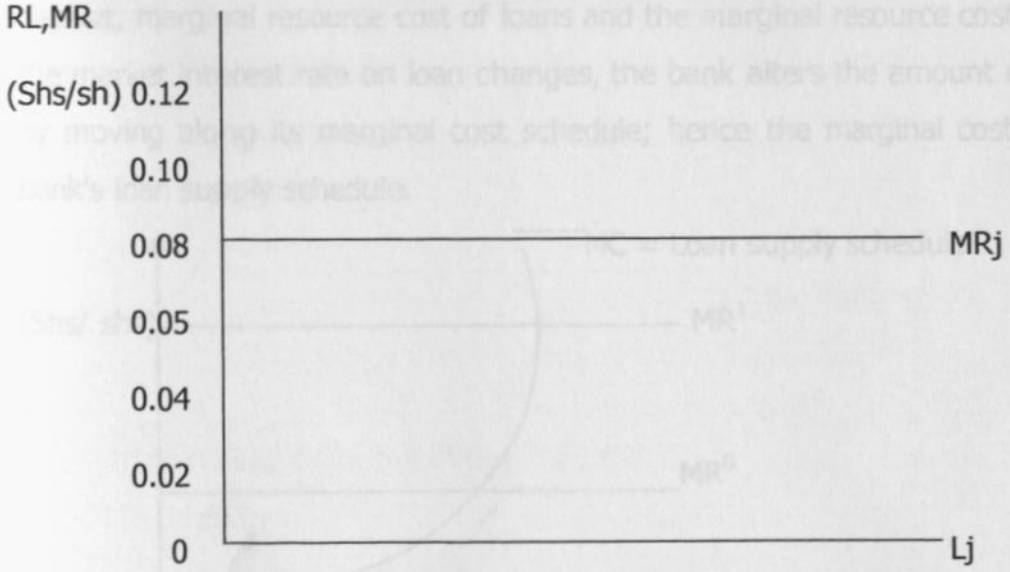
- There are numerous banks issuing checking deposits and making commercial and industrial loans. Each of these banks has a small portion of the total loans and deposits in the banking system in the banking system. Consequently each bank takes the market rates as determined by forces of supply and demand, thus no bank can influence magnitudes of the market interest rate via its own actions.
- Loans and deposits are each viewed as homogenous financial assets by customers. It does not matter where a customer deposits his funds or borrows funds.
- All banks have access to same technologies for employing people and other factors of production in their banking tasks. This means that no bank has better access to banking technologies or to factors of bank deposit and loans production than any other bank.

Bank revenues are interest earnings on loans that banks make to borrowers. On the other hand, banks have costs that include interest expenses incurred through payments on deposits that banks use for lending. They also incur labour costs in obtaining and servicing deposits and in monitoring of loans.

A bank profit maximization requires that bank make loans to the point at which the additional revenue earned on the last shilling of loans made to customers is just equal to additional costs incurred on that last shilling it lends.

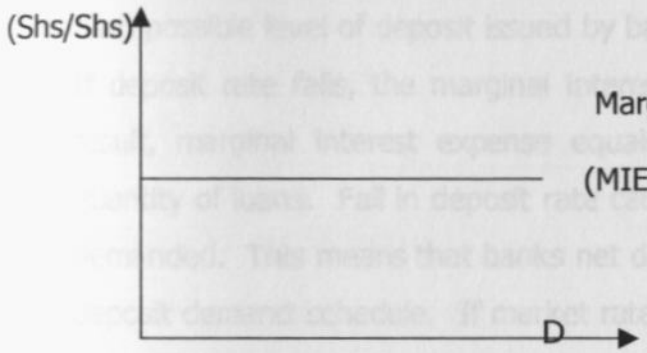
The additional revenue earned from last dollar is called marginal revenue. Under perfect competition, the amount of lending by an individual bank is so small compared to total amount of lending by all banks that no individual bank can affect the market interest rate. Hence for a given bank marginal revenue is equal to interest rate earned on the next shilling lent, which is the market interest rate.

Thus no matter how much lending a bank does, it receives the same revenue.



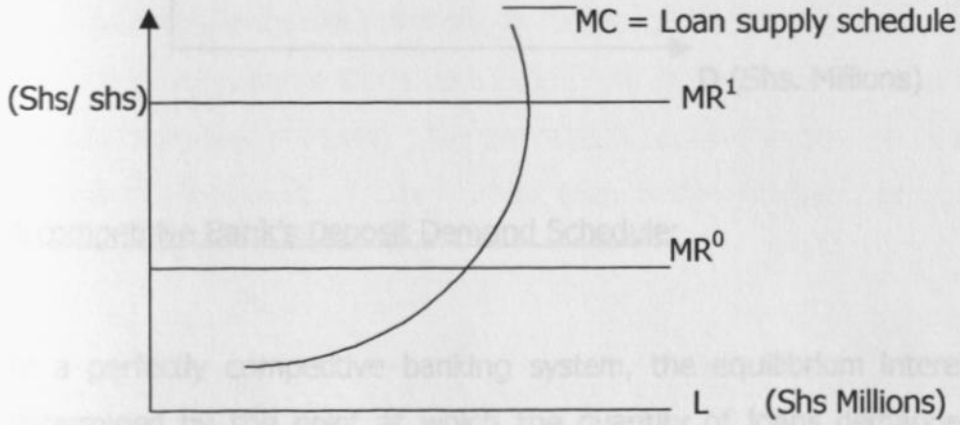
A perfectly competitive Bank's
Marginal Revenue Schedule

Likewise marginal deposit interest expense incurred by a bank is the additional interest it must pay per shilling of deposit. The marginal interest the bank incurs is constant and equal to the market deposit rate.



Marginal interest expense schedule:

On the other hand banks will strive to maximize their profits. The profits are maximized when market interest on loans is equal to marginal cost (marginal interest expense on deposit, marginal resource cost of loans and the marginal resource cost of deposits). If the market interest rate on loan changes, the bank alters the amount of loans it makes by moving along its marginal cost schedule; hence the marginal cost schedule is the bank's loan supply schedule.

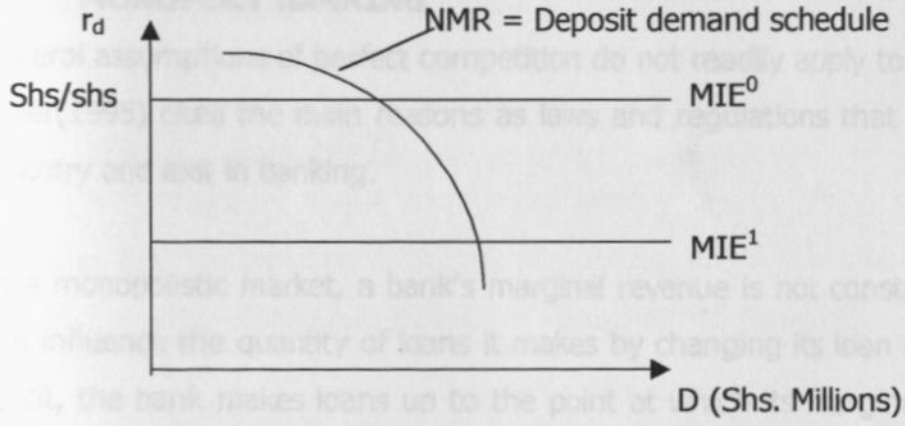


Bank's loan supply schedule:

This means that bank's marginal cost schedule gives us combinations of loan rates and loan quantities that maximize bank's profit. In a perfectly competitive deposit market,

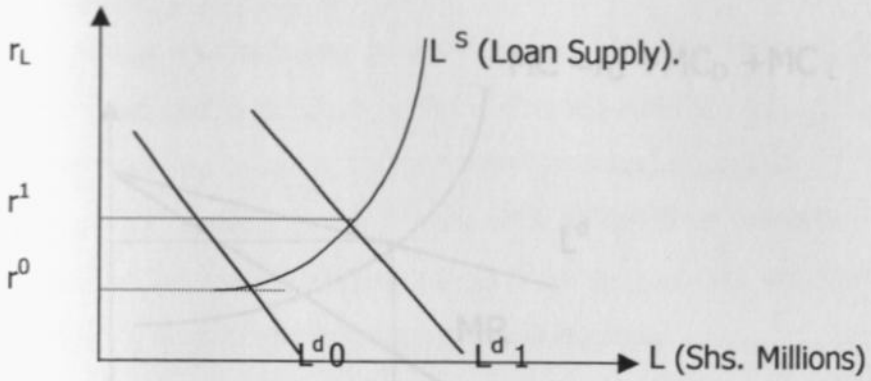
market deposit rate r_d is determined by supply and demand. In such a case the marginal interest expense schedule is horizontal at the market deposit rate. A net marginal revenue schedule (NMR) drawn on the marginal interest expense is downward slopping. (NMR is derived by subtracting marginal loan and deposit resource cost at each possible level of deposit issued by banks from the constant loan rate)

If deposit rate falls, the marginal interest expense schedule shifts downwards. As a result, marginal interest expense equals net deposit marginal revenue at a higher quantity of loans. Fall in deposit rate causes banks to increase the quantity of deposits demanded. This means that banks net deposit marginal revenue schedule is the bank's deposit demand schedule. If market rate was to raise again the banks' would decrease the quantity of deposit demanded.



A competitive Bank's Deposit Demand Schedule:

In a perfectly competitive banking system, the equilibrium interest rate on loans is determined by the point at which the quantity of loans demanded by the non-bank public is equal to the quantity of loans supplied by banks. On the other hand, equilibrium interest rate on deposit is determined by the point at which the quantity of deposit demanded by the banks is equal to the quantity of deposit supplied by the non-bank public.



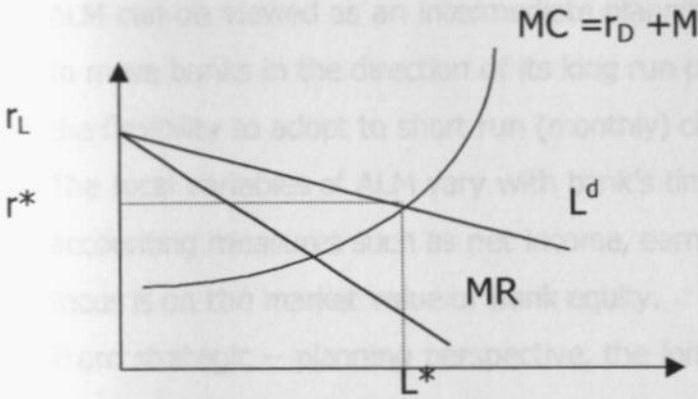
Loan market equilibrium

As interest on loan increases, loans supplied by banks increase and demand for loans by non-bank public decreases.

ii) **MONOPOLY BANKING**

Several assumptions of perfect competition do not readily apply to the banking industry. Miller(1995) cites the main reasons as laws and regulations that have limited freedom of entry and exit in banking.

In a monopolistic market, a bank's marginal revenue is not constant because the bank can influence the quantity of loans it makes by changing its loan rate. To maximize its profit, the bank makes loans up to the point at which its marginal revenue is equal to the marginal cost it incurs. The monopoly banks charges the highest loan rate that borrowers are willing to pay. This, then is the market loan rate charged by the monopoly bank.



r* = is the highest loan rate that borrowers are willing to pay

A Monopoly Loan Market

2.06 BANK MANAGEMENT

Black (1975) denotes "bank fund management" as to imply, general principles for choosing bank assets and liabilities, for pricing funds transfer services such as the handling of cheques and for dealing with government regulation.

Rose and Fraser (1984) note that Bank management is also known as asset liability management. They define asset/liabilities management as coordination of the relationships that must be identified, coordinated and managed as a system if the decisions made are to be consistent with the basic objective of wealth maximization.

Sinkey (1993) defines Assets liability management as global or general approach that requires cordination of the various specific functions to achieve the bank's desired policy objectives.

He also highlights the importance and function of asset liability Management (ALM).

- ALM can be viewed as an intermediate planning function (3 – 12 months) designed to move banks in the direction of its long run plan (2 to 5 years) while maintaining the flexibility to adopt to short run (monthly) changes.
- The focal variables of ALM vary with bank's time horizon. In short run, focus is on accounting measures such as net income, earnings per share (EPS) while in long run focus is on the market value of bank equity.
- From strategic – planning perspective, the long run goal of ALM may be expressed as maintaining a competitive Return on Assets (ROA), and Return on Equity (ROE) or ensuring that the bank has adequate capital or both. In broader view six policies to achieve short and long run objectives of ALM are:
    - Spread management- Spread (net interest margin) management refers to the difference between return on assets and costs of liabilities. The key is to maintain and stabilise the spread over time. It should also be concerned with the impact of the assets and liabilities acquired on overhead costs and the total risk level.
    - Control of net non interest income or burden
    - Liquidity management
    - Capital management
    - Tax management
    - Management of off-balance sheet activities

Sinkey (1993) also identifies four building blocks of ALM. These are

1. Gap Measurement

Banks have ratios of interest sensitive assets to interest sensitive liabilities which are greater than 1.0 Rose (1984) defines this gap as the dollar amount by which fixed rate liabilities exceed fixed rate assets. This gap is positive for many banks – dollar amount of fixed rate liabilities is greater than the fixed rate assets. Existence of large gap when

interest increases produce larger earnings. Similarly existence of a large gap when interest rates decrease will produce lower earnings.

Purpose of gap management is to maintain stable earnings growth over the cycle of interest rates.

2. Interest rate forecasting

The interest rates at which dollar (shillings) will flow must be estimated. Since spread management is an integral parts of ALM it allows bank's to monitor their spreads by time frame. Both long-term rewards and short term results require that assets and liabilities be matched profitably.

3. Projection of future income

The quantities of money volumes and prices (interest rate) generated by the previous two blocks provide the foundation for projecting future incomes.

Best, worst and most likely (incomes) are generated by simulation models. The basic idea is to measure the bank's vulnerability to alternative interest rate scenarios.

4. Testing different strategies

Different ALM strategies must be analyzed with respect to their effects on the bank's bottom line. The critical decision variables in the arrangements process are pricing strategies, product mix, the size, growth and composition of the balance sheet and extent of the off-balance sheet activities.

2.07 RATIONALE OF BANK REGULATION

Hubbard (1996) notes that one possibility of regulation is that banks assume special risks in their activities as intermediaries.

Difference in the maturities of banks assets and liabilities can expose banks to interest rate risk, the chance that banks networth will decline if markets interest rates rise.

(This is not a problem in United states because banks can use instruments traded in financial markets to reduce the exposure to interest rate changes).

Greater concern for the health of banking institutions is focused on information problems and liquidity risk associated with unanticipated withdrawals of deposits. Banks have private information regarding their loan portfolio. Investors may loose confidence even in financially healthy banks, leading to a bank run, especially in case of a bad rumour.

Policy makers have to maintain health of banks. The government also focuses on reducing information costs through disclosure of information and prevention of fraud hence efficiency with which savers and borrowers are matched will not be reduced.

Before 1933, banking industry in U.S. was regulated to restrict bank competition and to stabilize banks profitability. This was through branching restrictions; geographic limitations on bank's ability to open more that one office or branch. This law sought to ensure a low cost of funds to banks and to stabilize the banking systems.(Hubbard, 1996).

Edmister (1986) notes that new legislations enacted in 1975 were enacted to make financial institutions more competitive and sound. They were intended to remove barriers to competition, to foster development of a national securities market system and a national clearance and settlement system. Specifically the regulations were designed to accomplish the following:

- Increase competition
- Improve the flexibility of financial institutions to respond to changing needs of individuals and businesses.
- Maintain a base for effective monetary policy.
- Preserve a sound and resilient financial system.

These were intended to promote a stable and growing standard of living.

Thygerson (1992) notes that one possible rationale for regulation of financial services is that it is for public good. The **public good theory** of regulation holds that regulation is justified to correct an alleged or proven deficiency in the competitive market process. He further discusses, some regulatory goals, their effects on operations of financial institutions and managerial implications.

These are:

1. Increase competition

Some regulations provide potential sellers with equal access to market inorder to encourage competition which benefits the consumer through improved quality of service at lower price. Regulation also restrict development of monopolies by approving new branches in markets not already concentrated by that institution.

2. Reduce information asymmetries

Asymmetric information occurs where buyers and sellers are not equally informed about the true nature of what they are buying and selling. Asymmetry runs in one direction where the seller know more than the buyers. With respect to bank, banks know more than the investors (borrowers) and customers (depositors). It is for this reason that all depository institutions are required to publish their annual financial statements.

3. Reduce potential for insider abuse and fraud

Related to reducing information asymmetries, is protecting investors from fraud and insider misuse of information. Information released by companies and their officers is also subject to disclosure requirements to ensure that it is factual and timely and to discourage insiders from giving misleading signals to unknowing buyers of company's securities.

4. Reduce prejudice or bias of supply

Regulations, specifically those relating to credit allocation have been placed especially in U.S in 1990s to "force" institutions to lend to specific classes of consumers on the basis of sex, race and sexual orientation.

5 Encourage socially desirable credit allocation

Regulators have occasionally altered the lending powers of financial institutions to encourage credit allocation towards what is socially desirable e.g. owning at home in U.S.

6. Promote safety and soundness.

Regulations have to be put in place to ensure that financial institutions do not fail. Benston and Kaufman (1988) have outlined some of the fears that regulations of commercial banks attempt to allay.

i) Cost of financial panics and threatened interruptions to the payment system related to commercial bank failure.

ii) Possible local and regional disruptions caused by commercial bank failures in particular pockets of the company.

iii) Loss of wealth of depositors, which is harsh for low and moderate income households.

iv) Excessive risks involved in lending activities as a result of the commercial banking industry's ability to issue liquid deposits.

v) Potential excessive competition between banks and non-banks.

vi) Conflicts of interest between banking activities and security issuance and commerce.

7. Protect tax payers from deposit insurance fund failures.

Regulators have protected depositor's funds in institutions in distress. In Kenya Deposits protection fund was established in 1986 to instill confidence in investors. Some banks have even been bailed out of financial distress. For example National Bank of Kenya.

8. Support monetary policy goals.

Regulations are passed that are meant to stimulate monetary policy by increasing loans and investment in the economy.

Rose and Fraser (1984) give basic reasons for regulating banking.

Firstly Taxation; argument is that tax charged on users of bank money is collected efficiently.

Second to prevent centralized power; Banks are regulated as far as branching is concerned. This has limited the number of potential sources of loans for people. Today is U.S multitude of sources of a finance are available thus no justification for this continued restrictions.

Third to avoid competition; Commercial bankers do not want to face competition for business loans and deposits from thrift associations. On the other hand regulation prevent bankers from organizing their operations in whatever way is most efficient for given markets and set of products and also prohibit them from directly offering a full range of services to the customers.

Fourth to prevent bank solvency and effects of failure on the economy

Bank failure is costly to the primary persons owners, employers, borrowers, depositors, and users of other banking services.

Bank failure is also costly to the government. Banks that failed in Kenya between 1990-1997 costed 10% of GDP. (kathanje, 2000).

Fifth to control money supply; Central Bank determines the amount of reserve that banks should hold. This can be done through required reserve ratio open market operations or controlling borrowing from Central bank.

Sixth for furtherance of social goals - The provision of Banking services.

General types of social goals are:

i) The provision of the banking services of loans, fund transfers and savings.

ii) Support of housing and other attempts to allocate credit.

iii) Prevention of individual discrimination and unfair dealing against individuals.

In U.S specialized institutions were for providing social goals. Mutual savings banks were first established in poor areas to provide a place where the working poor could save with safety.

Today prevention of commercial banks from offering a full range of financial services have kept them from meeting the social goal of service to consumers.

2.08 TYPES OF BANKS REGULATIONS

In Kenya the central Bank assumes the role of the regulator for banking business deriving the legality from both the central Bank of Kenya Act and the Banking Act. These two legal documents give the central Bank powers to oversee the conduct of banking business in Kenya. The CBK Amendment Act outlines clearly the broad objectives of the central Bank of Kenya as "to formulate and implement monetary policy directed to achieving and maintaining stability in the general level of prices" and "To foster the liquidity, solvency and proper functioning of a stable market-based financial system. The second broad objective of central Bank of Kenya in the Amendment Act

relates to the financial structure basically the commercial bank and the Non-banking financial institution in the way they enter, conduct and exit banking business allowing for a smooth system which would enable the implementation of monetary policy.

Regulation of Banks may take different forms:

1. REGULATION OF BANK OWNERSHIP

Commercial banks can be independently owned by a holding company. While some multi-bank holding companies (owning more than one bank) exist, one bank holding companies (BHCs) are more common in U.S. banks with multistate operations have historically been required to maintain a separate holding company for each state that oversees the respective subsidiaries.

2. BALANCE SHEET REGULATIONS

In addition to maintaining required reserves, banks are subject to a variety of other regulations on deposit accounts, deposit insurance loans, other assets and capital.

These are:

Regulation of deposit accounts

Banks historically in Kenya had been prevented from offering an account that could provide both Cheque-writing and interest. However, all depository institutions in U.S. were allowed by the depositing institutions deregulation and Monetary Control Act. (DIDMCA) of 1980 to offer NOW accounts which provide interest and unlimited-cheque writing ability.

Deposit Insurance

Commercial banks in U.S. obtain insurance from the federal Deposit Insurance Corporation (FDIC).

Premium paid are placed in a reserve fund, which is then used to finance the liquidation of failing banks or to help support bank acquisition of failing banks. Due to depletion of the fund proposals for less deposits insurance have been considered so that the depositors also incur some of the loss.

Regulation of loans

Banks regulators in U.S. began to monitor the amount of high leveraged transactions. These are loan transactions in which the borrowers liabilities are valued at more than 75 percent of total assets. Banks are now required to report debt exposure of any country that represents at least 0.75 percent of its total assets. Directors of Kenya banks have to get approval of loans required from the full board of directors and this has to be reported to the central bank of Kenya.

Regulation of other assets

In U.S. Banks are not allowed to use borrowed or deposited stock although they can manage stock portfolios through trust accounts that are owned by individuals. They can only invest in bonds that are investment grade quality. These regulations are intended to prevent banks from taking excessive risks.

Regulation of Capital

Banks are also subject to capital requirement which forces them to maintain a minimum amount of capital (or equity) as a percentage of total assets. Minimum capital requirements imposed in U.S. in 1981 created an unequal global paying field, since some banks had lower capital requirements depending on their locations. This was streamlined in 1988 by central banks of 12 U.S countries.

In Kenya, banks are required to increase their capital shs 100m per year to reach shs500m while the corresponding increase for non-banking financial institutions will be shs 75m per year to reach shs 375m by year 2002

However institutions entering the industry for the first time are required to raise the minimum capital required (CBK, 2000).

3. OFF- BALANCE SHEET REGULATION

Banks offer a variety of off-balance sheet commitments. For example, banks provide letters of credit to back commercial paper issued by corporations. They also act as the intermediaries on interest rate swaps and usually guarantee payment over the specified period in the event that one of the parties defaults on its payment.

These off-balance sheet transactions have become popular because they provide fee income. Banks exposure to off-balance sheet activities is a major concern because the bank may be more risky than what is indicated in its balance sheet Thus risk-based capital requirements are higher for banks that conduct more of off-balance sheet activities.

4. INTEREST RATE REGULATIONS

Banks have historically been regulated as to the interest rates they can offer on deposits and charge on loans (madura,1992)

Deposit rate regulation.

Regulation Q of 1933 which placed interest rate ceilings on saving deposits, was expected to limit the competition for funds by banks and enhance the safety of the banking system.

Failure to impose interest rate ceilings would have allowed for survival of only the more efficient banks. In 1969, the market determined interest rates were significantly higher even with ceiling rate being raised periodically.

The deposits rates were deregulated in 1980.

Loan rate regulations

Consumer loans in U.S. were also subject to interest rate ceilings. Each state imposed usury laws in the effort to keep consumers from being overcharged on loans. Increase in general level of interest rates exceeded the usury ceilings imposed by states resulted to banks providing fewer consumer loans. Ironically the ceiling rates that were intended to help consumers actually hurt them. Since then, most of these loans have been eliminated or amended.

5. GEOGRAPHIC REGULATIONS

The geographic market in which a bank is allowed to establish branches varies among countries. In the U.S., states implement one of the three branching laws; state wide branching, limited branching and unit banking services to be offered only at the home office. But banks have set up automatic teller machines (ATMs) across geographic boundaries to tap other markets even if they cannot legally establish there.

6. REGULATION OF NON-BANKING ACTIVITIES

Banks have attempted to diversify their business beyond conventional banking services. The most considered services are related to the securities, insurance and real estate industries.

The U.S. banking Act of 1933 stated that banking and securities are to be separated. The Act was prompted by insider trading and conflict of interest. However, the Bush administration proposal for bank reform in 1991 specified additional flexibility for banks to offer security services.

Provision of insurance services have been opposed by the insurance industry in US. But to a limited degree, banks have already participated in insurance activities. On the local scene, banks are as an incentive to woo customers provide insurance schemes to customers who maintain certain accounts and at a specified minimum balance.

2.09 THEORIES OF BANK REGULATION

Miller (1985) discusses three basic theories of regulation behavior. These are:

1. **Public interest Theory**

According to this theory regulators seek to maximise the welfare of a society as a whole. This theory supports the establishment of independent regulatory bodies. The argument is that if market does not work, regulators will intervene and do what is best for both firms and consumers in those markets. Individual interest of regulators themselves play no role in their decisions.

2. **The capture theory**

This theory is credited to Nobel Economists George Stigler. Its views that society as a whole does not benefit from regulation, instead those who benefit from regulation are those who are regulated. Those who loose are the consumers of their products. Advocates of this theory see regulatory bodies as groups of individuals that the firms they regulate (banks) desire to influence to achieve favourable treatment. The regulated firms strive to capture their regulator so that they might reap the benefits from regulations. They might do this by providing favours or by standing ready to employ the regulators.

3. **The public choice theory**

This theory encompasses the public interest and capture theories. On one hand they want to do what is best for society as a whole holding other things constant but unfortunately "other things constant" is not the way the world works. On the other hand, the regulators want to keep prices low for benefit of the consumers, but low profits for the firms may mean end of those firms.

So whichever direction they lean, either consumers or firms stand to loose. As a result, regulators will set regulations that will enable the firm to earn profits above perfectly competitive levels but below those they could earn at monopolistic levels.

2.10 IMPACT OF INTEREST RATE CONTROLS ON THE FINANCIAL INTERMEDIARIES

Due to regulation Q of 1933 of U.S. that controlled interest rates, financial innovation in commercial banking accelerated in 1960s and 1970s. Increased competition reduced the value of key part of bank's networth. As interest rate (U.S government) rose and cost of funds to banks rose, asset portfolio had to maintain profitability. This forced banks to accept riskier loans in energy production, agriculture, real estates and debts to developing countries. When oil and agriculture industries fell in 1980s, loans in these sectors declined in value.

Volatile interest rates and exchange rates caused some banks to fail. For example, the Franklin national bank in 1974.

In 1980's and 1990's, banks found themselves exposed in high risk through their investments in highly leveraged transactions (HLTs) in which banks financed buyout of firms by their managers or other investors. Some banks lost heavily in HLTs. Some banks were bailed out from collapse e.g. Continental illinois in 1984 and First Republican Bank of Dallas in 1988. Banks also started using Repurchase agreements, overnight Eurodollars and automatic Transfer system. They also developed new financial instruments. Citibank introduced "negotiable certificate of deposit" as a time deposit with a fixed maturity to compete with commercial paper. They also introduced a "negotiable order of withdrawal (NOW) account" which could pay interest.

A study on effects of deregulation of interest rates on performance of Spanish banks found that there was an increase productivity growth.

Control of interest rates would decrease financial performance of banks. Kathanje (2000) found a significant difference in banks performance before liberalization and after liberalization of interest rates in 1991. Specifically, performance improved after liberalization.

2.11 IMPACT OF INTEREST RATE CONTROL ON THE ECONOMY.

Any government regulation presents a constraint on those regulated that reduces aggregate welfare. There are four possible exception; the constraints are not binding, there are externalities, the cost of government administration is reduced and resources redistributed among persons so that someone's welfare is increased.

Control over prices received and paid (interest rates) by financial intermediaries are imposed by states. These interest rates restrictions tend to misallocate resources. This arises as a result of restricted availability of riskier and operationally more costly loans whose net yields are within the legal limits

In inflation conditions, the premium for inflation increases to the point where loans are not as profitable as other investments. Interest rate controls results into larger business loans being made in preference to smaller ones whose operating cost per shillings loaned is high. This may lead to tie-in arrangements such as compensating balances, which effectively increase the rate of interest charged (Bowsher (1975) and Benston (1975))

Where ceiling become restrictive, consumers cease using services of regulated financial intermediaries and where law permits, direct loans and other forms of disintermediation take their place. The net result is a decline in general welfare.

Ceiling on deposit payments have dysfunctional effects. The argument that prohibiting interest payments on demand deposits is necessary to keep banks from making risky loans in an effort to offset interest expense has been shown to be false (Benston (1964)) The prohibition has the effect of government administered oligopolistic cartel price enforcement. Ceiling on the rates paid on time and saving deposits also have effect of raising transitional costs as financial intermediaries, and consumers attempt to evade restrictions.

Promotions and premiums are less valuable than their cash equivalents and disintermediation is the generally more costly than intermediation. However the

cost to consumers of disintermediation may exceed the benefits (especially for small savers, pyle, 1974)

The effect, then of ceilings on prices of financial intermediaries may charge and pay or funds is to increase transaction costs (borne by intermediaries and consumers) and misallocate resources.

It has also been argued that interest rate controls will result to service charges being increased . It has also been argued that small savers will be ejected out of financial intermediation through increased minimum balance requirements

Willey (1976) notes that the main objective of the compensating balance is to provide banks with extra profit to reduce the probability of their bankruptcy. Where the bank has a monopoly power, the restrictions impact on the bank profit survives, and the restrictions performs as designed. However the direct impact on the bank's profit is negative and the bank must be compensated indirectly through sidepayments. Therefore with optimal compensating balance arrangements the restrictions on deposits benefits only those banks in an advantageous market position relative to their customers.

Willey (1976) concludes that the irrational practice of compensating balance is explained by optimizing behaviour of banks. The practice circumvents the prohibition on payment of interest on demand deposits.

Despite the fact that there is minimum balance by many banks its requirement is not well understood by many, though it is firmly entrenched in our banking system.

The balances variation from time to time may be due to changes in interest rates. Thus government regulations create strong incentives to develop practices that circumvent them, and the compensating balance arrangement is one such practice.

2.12 BANK DEREGULATION

Fraser (1984) observes that regulation is like a dam that prevents the flow of underlying economic, activity. Once that barrier is lifted, the economic structure moves rapidly to its more natural equilibrium.

He observes that in the initial phase of deregulation (two to four years) industry economies generally deteriorate. Strong firms expand into formerly protected markets and accelerate new product introductions while new suppliers enter the market with low cost options.

This results in the following:

- Performance variability among firms within the industry increases. Weak firms become more weaker and they exit.
- The previously more profitable products come under the most severe price pressure as competition increases.
- Products become unbundled with a proliferation of new, complex products/services trade off i.e more services are offered and price variation become the order of the day.
- An industry wide profit squeeze forces rapid cost cutting, particularly in the form of staff reductions.
- Capital requirements increase, at the same time access to capital market is reduced. This arises in that funds are needed to weather the probable profit storm and to adjust to the changing conditions in the environment. On the other hand, capital markets are reduced because of uncertainty in the deregulated industry.,

Fraser concludes that as deregulations accelerates, the structure of the financial institution in the industry changes significantly. Many economists have argued that bank are special entities and so they should be regulated. The Central issue is what is the "best" regulatory structure for financial institutions. Whatever is "best" is different for different economies.

2.13 MEASURES OF FINANCIAL PERFORMANCE

Performance is the ability to sustain income, stability and growth. It is a measurement of relative investment (Walter, 1968) and can be relative to one of the following factors: Assets, capital adequacy, liabilities, number of employees and other size measures.

Profitability Analysis is the most common measure of financial performance. The measures are used to assess how well management is investing the firms total capital and raising funds. Profitability is generally the most important to the firms and shareholders. Profits serve as cushion against adverse conditions such as losses on loans, or losses caused by unexpected changes in interest rates. Consequently, creditors and regulators concerned about failure also look to profits to protect their interests although the measures ignore firm's risk.

Profits depend on three primary structural aspects of financial institutions: Financial leverage, net interest margin and non-portfolio income sources. Return on equity (RoE) and Return on Assets (RoA) are the most commonly applied profitability ratios used to assess financial performance.

Return on Assets (ROA)

The ROA will usually reveal when a bank's performance is not upto par. ROA is net income measured as a percentage of assets.

If a banks ROA is less than desired, the bank is possibly incurring excessive interest expenses. Also a relatively low ROA may also result from insufficient non-interest income. A banks ROA can also be damaged by heavy loan losses.

To improve their net margins, banks generally attempts to shift their risk-return preferences according to economic conditions. They do this by increasing their concentration of relatively risky loans during periods of prosperity and increasing their

concentration on relatively low risk (and low return) investments when economic conditions are less favourable.

Return On Equity (ROE)

Common or ordinary share holders are entitled to the residue profits. The rate of dividend is not fixed; the earnings may be retained in the business or distributed to share holders. A return on share holders equity is calculated to see the profitability of owners investments. Share holders equity include paid up share capital, share premium and reserves and surplus less accumulated losses.

The ROE is given by the ratio of net profit after taxation but before extra ordinary items, to share holders equity. A satisfactory ratio of net profit to owners equity is the most desirable objective of a business. It is of great interest to the present as well as prospective shareholders and to management too which has responsibility of maximizing the owners welfare.

In Kenya performance is assessed by central Bank using parameters such as capital adequacy, asset quality and liquidity. This rating system is referred to by the acronym CAEL, derived from the first letters of Capital Adequacy, Asset quality, Earning and Liquidity.

Institutions are rated on a five tier system as shown below.

Strong: - Excellent performance in all parameters

Satisfactory: - Good performance in most of the parameters.

Fair:- Average performance and meets minimum statutory requirements

Marginal; - Below average performance in some of the parameters.

Unsatisfactory:- poor performance in most parameters and violates minimum statutory requirements.

Capital Adequacy

Capital adequacy indicates the extent to which an institution's capital base covers the risks inherent in its operations. The capital acts as a cushion against losses, which cannot be supported by current earnings. Further capital, capital acts as evidence to the creditors of the willingness of the shareholders to commit their own funds on permanent basis to the institution. Capital therefore is a source of public confidence in the institution.

The banking Act, specifies the minimum gearing ratio (capital to deposits) of 7.5 per cent that each banking institution in Kenya must maintain.

Important capital adequacy ratios are

- Shareholders equity to total assets
- Shareholders equity to total loans
- Shareholders equity to total customer deposits (gearing ratio)

The above Capital adequacy ratios relate to the firms overall use of financial leverage. Generally, firms with financial leverage experience more volatile earnings behaviour

Asset Quality

Asset quality refers to credit risk embodied in the institutions asset portfolio e.g. performance of loans, investment in treasury bills and other securities.

In the Banking system, loan and advances form the greatest proportion of banking institution assets. The same present the greatest risk in terms of potential loss exposure.

Important asset quality ratios include.

- Non-Performing loans less provision to total loans.
- Total loans to total assets

Earnings

The earnings of an institution play a vital role in the institution namely absorbing loan losses a rising from provisions for bad debts. This consequently protects the capital base from erosion in circumstances where profits are not adequate to cover the bad debts, financing the internal growth equity, which subsequently determine the growth rate on assets. This helps to cushion the deterioration in the ratio of equity to assets, improves the investors rating of the institution who would consequently supply new capital base to the institution when need arises. The dividends are distributed to the shareholders from the earnings of the institution. In an institution, an excessively high return on assets can at times be an indicator of excessive risk taking behaviour which is potentially dangerous to the stability of an institution while an extremely poor earning performance could be an indicator of a problem in the institution especially existence of non-performing loans.

Important earnings ratios include

- Total income to total assets
- Total income to paid up capital
- Net assets to total assets.

Liquidity

This indicates the daily ability of an institution to access cash easily by accommodating maturity obligations and allowing for expansion in assets. The liquid assets are easily convertible to cash in a relatively short period such as 90 days. The Banking Act in Kenya describes liquid assets as "notes and coins, which are legal tender in Kenya, balances held at the central bank, balances at other banks in Kenya after deducting therefrom balances owned to other banks, balances at banks abroad withdrawable on demand or short notice and money at call abroad after deducting therefrom balances owed to banks abroad, Kenya treasury bills and bonds of a maturity not exceeding 91 days which are freely marketable and re-discountable at central Bank and other assets

Specified by central Bank of Kenya". The Act stipulates the minimum ratio between deposit balances to liquid assets so as to enable them meet their maturing obligations as they fall due:

Important liquidity ratios include:

- Quick assets to total deposits
- Quick ratio

Limitations of Financial ratios

Ratios and financial analysis have their limitations (Thygerson, 1995). Judgment and experience are thus pre-requisites for performing financial ratio analysis. This notwithstanding, ratios have been applied widely to analyze financial data which guide in decision making. Financial statements present one of the basis of predicting financial performance of a firm and provides a way of reducing uncertainty facing creditors and other stakeholders. The profit and loss statements and the balance sheet are used to extract data for analysis.

Earnings and Profit Performance Emphasis

The banking sector management has shifted their focus to **Profitability** because of the recent developments in the sector which includes: the need for additional capital adequacy funds implying profits should be boosted as a main source, increased need for provisioning of bad and doubtful debts, need for funds for expansion and modernization/ technological advancement to serve customers better and attain competitive advantage. This requires efficiency and intensive capital investment.

High volatility of interest rates and exchange rates and intensive competition following liberalization of the sector are other factors considered. Altman (1968) concludes that profitability ratios are the most critical factors in a firm's ability to avoid failure.

3.00 CHAPTER THREE: RESEARCH METHODOLOGY

3.01 POPULATION AND SAMPLE

The population of interest for this study comprised of 46 commercial banks as per Appendix (iii). These are the banks that were cooperating as at 31st December 2001.

3.02 DATA COLLECTION

The study made use of secondary data obtained from:

i) Commercial banks published financial statements obtained from head offices and newspapers.

ii) Monthly economic reviews of Central Bank.

iii) CBK Annual Reports.

iv) Banks supervision reports

v) CBK statistical Bulletins

3.03 DATA ANALYSIS

To determine the potential implication of CBK (Amendment) Act on banks performance, it was necessary first to determine the average of the 3 months moving average rate of 91-day treasury bill for the year 2001. This average was used to determine the average lending and deposit rates as per the CBK (Amendment) Act.

According to the Act, deposit rate is to be 70% of 91-day treasury bill rate. To determine the average deposit rate as per the Act, 70% of the average of 91-day treasury bill (3-months moving average was calculated.

Interest expense was redetermined using the adjusted cost of funds and compared with actual cost of funds and tabulated as follows: -

Bank	Cost of funds	Cost of funds

The adjusted cost of funds figures were used to recalculate the interest expense which was compared with actual interest expense and tabulated as shown below.

Bank	Interest Expense	Adj. Interest Expense	Deviation %

The CBK (Amendment) Act required 4% to be added to the 3-month moving average date for purposes of determining the loan rate.

This was determined and compared with the actual loan interest rate on deposits and tabulated as follows: -

Bank	Yield of funds (loan)	Adj. Yield of funds (loan)

Interest income from loans was then re-determined using the adjusted yield funds and compared with the actual yield of funds and tabulated as follows: -

Bank	Interest income	Adj. Interest income	Deviation %

To achieve objective 1, it was appropriate to determine the overall effect on the profitability of the banks. For this purpose, the actual pretax profit (loss) was compared against adjusted pretax-profit (loss) and tabulated as follows: -

Bank	Pretax profit (loss)	Adj. Pretax profit (loss)	Percentage change

Also to determine whether the actual interest expense, income and overall profit (loss) was significantly different from the adjusted interest expense, income and overall profits or loss. Z-tests were carried out 5% significant level i.e.

Ho: The actual interest expense is not significantly different from the adjusted interest expense, income and profit (loss).

HA: Actual interest expense income and profit (loss) is significantly different from Adjusted interest expense, income and profit (loss).

To achieve the second objective; whether performance depends on the size of the bank, tests on analysis of variance was carried out at 5% significant level. The bank size here is determined by asset size. The hypothesis being tested here is whether the asset size makes a difference in performance among banks.

Ratios were also used to analyze change in earnings for the whole sector. Percentage change in interest revenue, percentage change in banks that profit sign changes, ratio of interest expense to interest revenue before and after adjustment were also calculated to give a detailed analysis.

ASSUMPTIONS

Being profit oriented, it will be assumed that banks would charge the highest interest on loans and advances i.e. 4% above the 91 –day Treasury bill rate and 70% of 91 day Treasury bill rate on deposits.

It's also assumed that other factors are constant, when adjusting for interest rates, for example, other services provided by banks are provided on the same terms.

It was also assumed that Banks deposits and advances remained unaffected by the bill proposal.

4.00 CHAPTER FOUR: DATA ANALYSIS & FINDINGS.

4.01 INTRODUCTION

This analysis encompasses 46 commercial bank in Kenya and it is based on the Central Bank of Kenya's official list of banks operating on 31st December 2001

To provide a detailed analysis, it was necessary to classify the banks according to their peer groups as follows

Table 2 Bank's asset size

Peer Group	Assets Size	No. of Banks
1	Over Kshs. 10 billion	8
2	Kshs. 5 bn –9.9 bn	10
3	Kshs. 3bn –4.9 bn	13
4	Kshs. 1bn –2.9 bn	14
5	Kshs. 0 –0.99bn	1
		46

This study only uses one measure, i.e. profit before taxation as initially specified.

4.02 COST OF FUNDS AND INTEREST EXPENSE

Under the CBK (Amendment) Act, Commercial banks are to charge 70% of the 91 day treasury bill rate published every last Friday of the month. (see appendix iv for 91 days treasury bill rate)

The cost of deposit of 8.51% has been found by averaging the resultant of 70% of the 91 TB rate. The assumption made is that, the average cost of deposit is the one that is charged by all banks. However it should be noted that some banks may pay a higher interest rate deposits so as to attract funds.

Cost of funds (deposit) determines the interest expense. Cost of deposit for each of the banks was computed by dividing total interest expense (on deposit) by total deposits. These have been calculated and are shown on the table below.

Table 3 Cost of funds;

	Peer Group 1	COST OF FUNDS (DEPOSIT)	ADJUSTED COST OF FUNDS
1	Barclays	2.39%	8.51%
2	CFC Bank	12.63%	8.51%
3	Citibank	3.30%	8.51%
4	CBA	4.28%	8.51%
5	Co-operative Bank	6.64%	8.51%
6	K.C.B.	5.02%	8.51%
7	N.B.K.	15.55%	8.51%
8	Stanchart	3.04%	8.51%
	Average	**6.61%**	**8.51%**
	Peer Group 2		
1	Consolidated Bank	4.00%	8.51%
2	Credit Agricole Indosuez Bank	6.46%	8.51%
3	Diamond Trust	6.38%	8.51%
4	Fina Bank	9.72%	8.51%
5	First American Bank	5.69%	8.51%
6	Giro Commercial	9.01%	8.51%
7	Investment & Mortgages	6.99%	8.51%
8	Middle East Bank	5.78%	8.51%
9	Stanbic Bank	6.69%	8.51%
	NIC Bank	5.00%	8.51%
	Average	**6.57%**	**8.51%**
	Peer Group 3		
1	ABC Ltd	7.58%	8.51%
2	Akiba Bank	7.62%	8.51%
3	Bank of Baroda	4.78%	8.51%
4	Bank of India	4.97%	8.51%
5	Co-operative merchant Bank	12.57%	8.51%
6	Development Bank	6.58%	8.51%
7	Gurdian Bank	7.74%	8.51%
8	Habib AG Zurich	5.15%	8.51%
9	Habib Bank	6.17%	8.51%
10	Imperial Bank	9.72%	8.51%
11	Prime Bank	8.23%	8.51%
12	Delphis Bank	8.95%	8.51%
13	Victoria Commercial Bank	7.92%	8.51%
	Average	**7.54%**	**8.51%**
	Peer Group 4		
1	Biashara Bank	5.31%	8.51%
2	Chase Bank	6.91%	8.51%
3	Charterhouse Bank	6.72%	8.51%
4	City Finance Ltd	4.14%	8.51%
5	Credit Bank	8.98%	8.51%
6	Daima Bank	7.84%	8.51%
7	Equitorial Commercial Bank	7.49%	8.51%
8	Fidelity Commercial Bank	9.54%	8.51%
9	Industrial Development Bank	6.17%	8.51%
10	K-rep Bank	5.00%	8.51%
11	Paramount Universal Bank	7.58%	8.51%
12	Southern Credit Bank Corp	7.12	8.51%
13	Trans-national Bank	6.68%	8.51%
14	Euro Bank	14.29%	8.51%
	Average	**7.41%**	**8.51%**
	Peer Group 5		
1	Dubai Bank	5.06%	8.51%
	Grand Average	**6.64%**	**8.51%**

Source: Research Data

- Deposit include customer deposits and inter bank deposits.

Under the CBK (Amendment) Act, all commercial banks are to charge 70% of the 91 day treasury bill rate published every last Friday of the month.(See Appendix 4 for 91-TB rates).

This cost has been found by averaging the resultant of 70% of 91-TB rate. This means that all banks would charge the same interest rate on deposits.

Interest expenses for each bank was then recalculated using the adjusted cost of funds. These are tabulated below.

Table 4. Interest expense

	Peer Group 1	Interest Expense (shs '000')	Adj. Interest expense (shs '000')	Percentage change
1	Barclays	1,358,000	4,862,000	258.03
2	CFC Bank	511,332	527,740	2.43
3	Citibank	734,581	1,920,317	161.42
4	CBA	597,019	1,186,789	98.79
5	Co-operative Bank	1,313,677	1,663,222	26.61
6	K.C.B.	2,511,504	4,256,915	69.50
7	N.B.K.	992,805	1,510,863	52.18
8	Stanchart	1,375,858	3,848,356	179.71
	Peer Group 2			
1	Consolidated Bank	71,676	150,721	110.28
2	Credit Agricole Indosuez Bank	246,216	324,544	31.82
3	Diamond Trust	256,483	342,059	33.37
4	Fina Bank	393,598	344,539	(12.46)
5	First American Bank	293,071	437,948	49.43
6	Giro Commercial	325,775	307,534	(5.60)
7	Investment & Mortgages	406,438	494,753	21.73
8	Middle East Bank	184,543	281,947	52.78
9	Stanbic Bank	379,539	482,688	27.18
10	NIC Bank	278,317	489,542	75.89
	Peer Group 3			
1	ABC Ltd	186,506	221,522	18.77
2	Akiba Bank	195,412	218,296	11.71
3	Bank of Baroda	159,149	283,517	78.15
4	Bank of India	132,627	226,984	71.14
5	Co-operative merchant Bank	316,724	214,370	3.27
6	Development Bank	170,575	183,712	7.73
7	Gurdian Bank	223,632	247,026	10.46
8	Habib AG Zurich	154,412	255,229	65.29
9	Habib Bank	153,606	211,701	37.82
10	Imperial Bank	287,626	251,861	(12.43)
11	Prime Bank	205,594	217,185	5.64
12	Delphis Bank	211,876	201,456	(4.92)
13	Victoria Commercial Bank	176,739	190,651	7.87
	Peer Group 4			
1	Biashara Bank	102,067	163,642	60.33
2	Chase Bank	40,901	50,366	23.14
3	Charterhouse Bank	102,746	130,158	26.68
4	City Finance Ltd	1,327	2,985	124.94
5	Credit Bank	103,464	98,094	(5.19)
6	Daima Bank	54,210	58,961	8.76
7	Equitorial Commercial Bank	138,857	157,871	13.69
8	Fidelity Commercial Bank	91,648	81,752	10.80
9	Industrial Development Bank	71,973	77,202	7.27
10	K-rep Bank	20,460	44,388	116.95
11	Paramount Universal Bank	104,156	89,599	(13.98)
12	Southern Credit Bank Corp	28,496	139,891	390.91
13	Trans-national Bank	50,302	66,471	32.14
14	Euro Bank	163,986	128,333	(21.75)
	Peer Group 5			
	Dubai Bank	24,830	45,058	81.46

Source: Research Data

One bank in peer group 2, has reported a decrease in interest expense, two in peer group 3 and three in peer group 4.

Overall 6 (13%) out of 46 banks have recorded a decrease in interest expenses.

Tests of Significance Results

Hypothesis testing on whether actual interest expense and adjusted interest expense was significantly different was done using Z-test for two sample means with known variances for each categories and yielded the following results.

The Z computed fell outside the scope of Z-critical implying that the actual and adjusted interest expense is significantly different.

Table 5 Z – test summary statistics

	Actual Interest expense	Adj. Interest expense
Mean	351 m	640 m
Variance	470	1082
Observations	46	46
Z	-8.4	
Z critical two tail	1.96	
Z critical one tail	2.58	

4.03 YIELD OF FUNDS AND INTEREST INCOME

Yield of advances determine interest income. Yield on advance has been computed by dividing interest income from advances to total advances.

They are tabulated below.

Table 6; Yield of funds.

	Peer Group 1	YIELD OF FUNDS (LOANS)	ADJ. YIELD OF FUNDS (LOANS)
1	Barclays	13.96%	16.24%
2	CFC Bank	17.93%	16.24%
3	Citibank	9.08%	16.24%
4	CBA	15.23%	16.24%
5	Co-operative Bank	13.98%	16.24%
6	K.C.B.	14.30%	16.24%
7	N.B.K.	11.45%	16.24%
8	Stanchart	14.08%	16.24%
	Average	**13.75%**	**16.24%**
	Peer Group 2		
1	Consolidated Bank	13.27%	16.24%
2	Credit Agricole Indosuez Bank	12.91%	16.24%
3	Diamond Trust	12.30%	16.24%
4	Fina Bank	17.27%	16.24%
5	First American Bank	13.60%	16.24%
6	Giro Commercial	16.51%	16.24%
7	Investment & Mortgages	15.01%	16.24%
8	Middle East Bank	14.35%	16.24%
9	Stanbic Bank	11.18%	16.24%
10	NIC Bank	19.17%	16.24%
	Average	**14.56%**	**16.24%**
	Peer Group 3		
1	ABC Ltd	21.23%	16.24%
2	Akiba Bank	10.92%	16.24%
3	Bank of Baroda	14.47%	16.24%
4	Bank of India	15.16%	16.24%
5	Co-operative merchant Bank	15.04%	16.24%
6	Development Bank	17.00%	16.24%
7	Gurdian Bank	13.84%	16.24%
8	Habib AG Zurich	16.68%	16.24%
9	Habib Bank	18.45%	16.24%
10	Imperial Bank	23.12%	16.24%
11	Prime Bank	19.40%	16.24%
12	Delphis Bank	23.49%	16.24%
13	Victorial Commercial Bank	14.44%	16.24%
	Average	**17.17%**	**16.24%**
	Peer Group 4		
1	Biashara Bank	17.49%	16.24%
2	Chase Bank	17.64%	16.24%
3	Charterhouse Bank	29.30%	16.24%
4	City Finance Ltd	7.42%	16.24%
5	Credit Bank	20.42%	16.24%
6	Daima Bank	11.45%	16.24%
7	Equitorial Commercial Bank	17.98%	16.24%
8	Fidelity Commercial Bank	25.23%	16.24%
9	Industrial Development Bank	13.39%	16.24%
10	K-rep Bank	16.66%	16.24%
11	Paramount Universal Bank	20.03%	16.24%
12	Southern Credit Bank Corp	12.23%	16.24%
13	Trans-national Bank	10.35%	16.24%
14	Euro Bank	13.49%	16.24%
	Average	**16.65%**	**16.24%**
	Peer Group 5		
	Dubai Bank	21.08%	16.24%
	Grand Average	**16.64%**	**16.24%**

Source: Research Data

Under the CBK (Amendment) Act all commercial banks should charge interest on loans at 4% above the 91-TB rate.

This yield will be the same for all banks, assuming that they will pay the lowest interest rate.

The average has been computed by averaging the resultant of 4% added to TB rate for the year 2001.

Interest income was also recalculated using the adjusted yield on advances and the comparison is set out below.

Table 7;Interest income

	Peer Group 1	Interest Income (shs '000')	Adj. Interest Income (shs '000')	% change
1	Barclays	8,129,000	9,168,000	12.78
2	CFC Bank	1,153,166	1,063,770	(7.75)
3	Citibank	1,976,506	2,842,982	43.84
4	CBA	1,440,525	1,484,360	3.04
5	Co-operative Bank	2,271,010	2,605,918	14.75
6	K.C.B.	6,608,506	7,286,602	10.26
7	N.B.K.	2,128,294	3,006,019	41.24
8	Stanchart	5,381,176	5,698,777	5.90
	Peer group 2			
1	Consolidated Bank	182,299	205,142	12.53
2	Credit Agricole Indosuez Bank	539,956	616,617	14.20
3	Diamond Trust	553,200	623,792	12.76
4	Fina Bank	625,244	597,689	(4.43)
5	First American Bank	657,771	734,849	11.72
6	Giro Commercial	524,763	515,266	(1.43)
7	Investment & Mortgages	688,175	732,065	6.378
8	Middle East Bank	343,206	370,896	8.07
9	Stanbic Bank	585,172	497,550	(14.97)
10	NIC Bank	1,027,699	907,349	(11.71)
	Peer Group 3			
1	ABC Ltd	358,932	299,147	(16.66)
2	Akiba Bank	306,685	425,741	38.82
3	Bank of Baroda	398,784	196,546	(50.71)
4	Bank of India	334,917	343,642	2.61
5	Co-operative merchant Bank	317,773	338,161	6.42
6	Development Bank	392,537	378,602	(3.55)
7	Gurdian Bank	409,920	472,128	15.18
8	Habib AG Zurich	377,430	374,411	(0.80)
9	Habib Bank	353,885	338,445	(4.36)
10	Imperial Bank	615,320	450,899	(26.72)
11	Prime Bank	368,117	319,157	(13.30)
12	Delphis Bank	357,964	259,333	(27.55)
13	Victoria Commercial Bank	303,617	330,412	8.83
	Peer Group 4			
1	Biashara Bank	292,719	281,214	(3.93)
2	Chase Bank	117,657	111,057	(5.61)
3	Charterhouse Bank	249,651	162,886	(35.56)
4	City Finance Ltd	52,143	96,120	84.34
5	Credit Bank	212,653	185,306	(12.86)
6	Daima Bank	70,446	96,885	37.53
7	Equitorial Commercial Bank	280,548	263,946	(5.92)
8	Fidelity Commercial Bank	195,145	132,561	(32.07)
9	Industrial Development Bank	181,496	213,821	17.81
10	K-rep Bank	170,300	167,308	(1.76)
11	Paramount Universal Bank	176,137	150,196	(14.73)
12	Southern Credit Bank Corp	224,581	230,025	2.42
13	Trans-national Bank	108,735	160,868	47.95
14	Euro Bank	175,051	210,712	20.37
	Peer group 5			
1	Dubai Bank	80,178	65,953	(17.74)

Source: Research data

Only one bank in peer group 1, (CFC), has shown a decrease in interest income from loan advances, twelve in peer group 2, eight in peer group 3, seven in peer group 4 and Dubai in peer group 5.Overall 29 (63%) out of 46 banks showed a decreased in interest income from loans.

Test of significance results.

Hypothesis testing on whether the interest income and adjusted interest income was done using Z test for two sample means and yielded the following results.

Table 8;test of significance on interest income

	Actual interest income	Adj interest income
Mean	969m	1063m
Variance	1663	1423
Observations	46	46
Z	-11.35	
Z critical two tail	1.96	
Z- Critical one tail	2.58	

At 5% significance level the Z computed fell outside the scope of Z critical implying that the adjusted and actual interest income was significantly different.

4.04 INTEREST EXPENSES COMPARED TO INTEREST INCOME

Like any other profit making concern, banks strive to keep their expenses low while trying to improve their revenue.

The ratio of interest expense to interest income shows interest expense per one shilling of interest revenue.

This is tabulated below:

Table 9;interest expense/interest income

	Peer Group 1	INTEREST EXPENSE/INTEREST REVENUE	ADJ. INTERST EXPENSE/ADJ. INTEREST INCOME
1	Barclays	16.7%	53.03%
2	CFC Bank	44.34%	49.23%
3	Citibank	37.17%	67.55%
4	CBA	41.44%	79.95%
5	Co-operative Bank	57.85%	63.82%
6	K.C.B.	38.00%	58.42%
7	N.B.K.	46.65%	50.26%
8	Stanchart	25.57%	67.53%
	Peer Group 2		
1	Consolidated Bank	39.32%	73.47%
2	Credit Agricole Indosuez Bank	45.60%	52.55%
3	Diamond Trust	46.36%	54.84%
4	Fina Bank	62.95%	57.65%
5	First American Bank	44.56%	59.59%
6	Giro Commercial	62.32%	59.68%
7	Investment & Mortgages	59.06%	67.58%
8	Middle East Bank	53.77%	76.02%
9	Stanbic Bank	76.28%	97.01%
10	NIC Bank	27.08%	53.95%
	Peer Group 3		
1	ABC Ltd	51.96%	74.05%
2	Akiba Bank	63.72%	51.27%
3	Bank of Baroda	39.91%	144.25%
4	Bank of India	39.60%	66.05%
5	Co-operative merchant Bank	99.67%	63.39%
6	Development Bank	43.44%	48.52%
7	Gurdian Bank	54.55%	52.32%
8	Habib AG Zurich	40.91%	68.17%
9	Habib Bank	43.41%	62.55%
10	Imperial Bank	46.74%	55.86%
11	Prime Bank	55.58%	68.05%
12	Delphis Bank	59.19%	77.68%
13	Victoria Commercial Bank	58.21%	57.70%
	Peer Group 4		
1	Biashara Bank	34.87%	58.19%
2	Chase Bank	34.76%	45.35%
3	Charterhouse Bank	41.16%	79.91%
4	City Finance Ltd	2.54%	3.11%
5	Credit Bank	48.65%	52.94%
6	Daima Bank	76.95%	60.86%
7	Equitorial Commercial Bank	49.49%	59.81%
8	Fidelity Commercial Bank	46.96%	61.67%
9	Industrial Development Bank	39.67%	36.11%
10	K-rep Bank	12.01%	26.53%
11	Paramount Universal Bank	59.13%	59.65%
12	Southern Credit Bank Corp	12.69%	60.82%
13	Trans-national Bank	46.26%	41.32%
14	Euro Bank	93.68%	60.90%
	Peer Group 5		
1	Dubai Bank	30.97%	68.32%

Source: Research Data

With the Act, only 10 (21.74%) banks have reduced this ratio. All the others 36 (78.26%) have reported an increase.

This signifies that the interest expense per one shilling of interest revenue has increased.

4.05 COMPARISON OF PRE-TAX PROFIT BEFORE AND AFTER ADJUSTMENT.

The net impact on interest expense and interest revenue was computed and the effect on the pre-tax profit was computed.

Comparison is as shown below.

Table 10; Pre-tax profit(loss)

	Peer Group 1	PRE-TAX PROFIT(LOSS) (shs '000')	ADJ PRE-TAX PROFIT(LOSS). (shs '000')	Percentage change(%)
1	Barclays	4,235,000	1,770,000	(58.21)
2	CFC Bank	260.467	158,663	(39.09)
3	Citibank	699,241	379,981	(45.68)
4	CBA	515,699	(30,236)	(105.86)
5	Co-operative Bank	(802,901)	(1,119,038)	(239.37)
6	K.C.B.	369,294	(698,021)	(289.01)
7	N.B.K.	(332,580)	27,087	108.14
8	Stanchart	3,223,840	783,103	(75.71)
	Average	**1,021,008**	**158,943**	**(84.43)**
	Peer Group 2			
1	Consolidated Bank	(13,136)	(69,338)	(427.85)
2	Credit Agricole Indosuez Bank	62,755	61,088	(2.66)
3	Diamond Trust	51,407	36,423	(29.15)
4	Fina Bank	51,592	72,976	40.90
5	First American Bank	227,495	159,696	(29.80)
6	Giro Commercial	29,585	40,329	41.08
7	Investment & Mortgages	101,103	(34,322)	(133.95)
8	Middle East Bank	80,100	10,386	(87.03)
9	Stanbic Bank	(294,156)	(484,927)	(64.85)
10	NIC Bank	377,040	45,465	(87.94)
	Average	**67,379**	**(16,222)**	**(75.92)**
	Peer Group 3			
1	ABC Ltd	40,938	(53,863)	(231.57)
2	Akiba Bank	22,009	118,181	436.97
3	Bank of Baroda	52,086	(274,520)	(627.05)
4	Bank of India	115,534	29,902	(74.12)
5	Co-operative merchant Bank	365,913	375,947	2.72
6	Development Bank	109,730	82,608	(24.72)
7	Gurdian Bank	55,634	94,448	69.77
8	Habib AG Zurich	112,846	9,010	(92.02)
9	Habib Bank	98,102	24,568	(74.96)
10	Imperial Bank	147,618	18,962	(87.15)
11	Prime Bank	55,292	(5,259)	(109.51)
12	Delphis Bank	(518,553)	(606,764)	(17.01)
13	Victoria Commercial Bank	20,010	32,893	64.38
	Average	**52,089**	**(11,837)**	**(122.72)**
	Peer Group 4			
1	Biashara Bank	70,806	(2274)	(103.21)
2	Chase Bank	30,002	13,937	(53.55)
3	Charterhouse Bank	92,207	(21,970)	(123.83)
4	City Finance Ltd	1,505	43,824	2811.89
5	Credit Bank	37,618	15,641	(58.42)
6	Daima Bank	(38,814)	(17,126)	55.88
7	Equitorial Commercial Bank	27,393	(8,223)	(130.02)
8	Fidelity Commercial Bank	25,845	(46,635)	(280.44)
9	Industrial Development Bank	(221,384)	(194,288)	12.24
10	K-rep Bank	56,890	29,970	(47.32)
11	Paramount Universal Bank	12,090	706	(94.16)
12	Southern Credit Bank Corp	(64,106)	(170,057)	(165.27)
13	Trans-national Bank	221090	257054	16.27
14	Euro Bank	(76,897)	(5,573)	92.75
	Average	**12,446**	**(75,01)**	**(160.27)**
	Peer Group 5			
1	Dubai Bank	10,147	(24,305)	(339.53)

Source: Research Data

In total, 12 banks out of 46 have changed their profit sign. This is 26.08% of banks operating in year 2001.

In term of peer groups, peer group 1 has a positive pre-tax average even after adjustment. The other groups have a negative average.

Overall Performance

Overall performance of the banking sector was analyzed by comparing the interest, income and interest expense and finding whether there was effect on the whole sector. This was tabulated as shown below: -

Table 11

Actual interest income Kshs.42,298,992	Adj. Interest income Kshs.46,013,125
Actual Int. exp. Kshs.15,904,333	Adj. Int. exp. Kshs.27,690,758
Deviation Kshs.26,394,659 (62.40%)	Kshs.18,322,367 (39.82%)

Performance of the whole sector has been reduced by (64.40 – 39.82) 22.58% as far as control of interest rates is concerned.

Overall, the actual and adjusted pre-tax profit (loss) as measured by Z-test was found to be significantly different.

The computed Z fell in the rejection region.

Table 12 test of significance on profit(loss)

	Actual pre-tax profit (Loss)	Adj Pre-tax profit (Loss)
Mean	233	25m
Variance	787	409
Observations	46	46
Z	40.18	
Z Critical two tail	1.96	
Z-Critical one tail	2.58	

To achieve the second objective it was necessary to carry out the test of significance of analyses of variance (ANOVA).

Test of significance of analyses of variance (ANOVA)

Differences concerning the performance in peer groups were found insignificant at 5% as the calculated F-ratio of 0.428 was less than the table value of 6.39.

Table 13;

Source of variation	SS	Df	MS	F-ratio	5% F-limit
Between columns	516,115	(2-1) =1	516,115	7.35	7.71
Between Rows	120,351	(5-1)=4	30,008	0.428	6.39
Residual error	280,721	(2-1) x (5-1) =4	70189		

This shows that performance is not influenced by the assets size this is inline with a study by Mugo (2001). which found out that performance does not have any relationship with assets sizes. So it can be concluded that performance of peer group does not depend in assets size.

5.00 CHAPTER FIVE: SUMMARY FINDINGS, CONCLUSIONS, LIMITATIONS AND RECOMMENDATION FOR FURTHER RESEARCH.

5.01 INTRODUCTION

This study was conducted with the aim of evaluating the potential implication of the Central Bank of Kenya (amendment) Act, 2000 on the financial performance of commercial banks.

To achieve the above objective cost of deposits and yield on advances computed as per the requirement of the said Act.
The analysis in Chapter four yields the following results for the whole sector and the peer groups.

5.02 SUMMARY FINDINGS & CONCLUSION

Without the amendments, banks performance is better than with the amendments.

It has been shown that asset size has no relation with the banks performance. This is in line with a study done by Mugo (2001).

Cost of funds (deposits) as per the requirements of the Act was found to be 8.51%. However it can be seen from the analysis that 10 banks were paying a higher interest rate on deposit (Table 3). Interestingly not all of the 10 banks that have high cost of funds, have shown a decrease in interest expense after the adjustment for the Act. All except NBK and CFC in peer Group one have reported a decrease in interest expense. It should be noted that the actual interest expense (Total) of the two banks include "other interest expense" that increases the adjusted interest expense. However, the adjusted interest expense on customer deposit and deposit on financial institutions is less than the actual.

Yield of funds (advances) as per the requirements of the Act was found to be an average of 16.24%.

Peer Group one has an average of 13.75%, group two an average of 14.56%, group three an average of 17.17% and group four an average of 16.65% and group five 21.08%. The grand average shows that the yield of funds (advances) (16.64%) was higher than the adjusted one (16.24%). It is worthy noting that banks with big assets size were charging low interest rates, while small banks were charging high rates (table 6)

Interest expense to interest income ratio (cost to income ratio) was calculated to determine the interest expense per one shilling of interest income. The lower the ratio, the better as this shows the efficiency of the institution. From table 8 it can be seen that this ratio improves with the amendments. Ten (10) banks have shown a decrease in the ratio implying that either their interest expense has reduced or interest income increased or both have happened for the same institution.

The pre-tax profit (loss) of the banks were adjusted using the "new" rates. Peer group one reported a positive average, while all the other groups a negative average. Twelve (26.08%) banks reported an increase in their profitability i.e. either showing an increase in the pre-tax profit or showing a decrease in pre-tax loss. Only one bank (NBK) changed its loss position to profit position. This can be explained by the decrease in its cost of funds (deposits).

Nine (19.57%) banks have changed their profitability position to loss position. This can be explained by increased cost of funds or decrease in interest income. Overall ten (21.74%) have changed their profitability sign.

In conclusion the study found out the following

- Control of interest charged on loans decreases the banks interest income. This is supported by the Z test.
- Control on deposit increases bank interest expense. The interest expense has increased by 52%. This has also been supported by the Z-test carried out to show whether the different in interest expense is significant.
- Overall performance in terms of pre-tax profits decreased by 89.45%.

Thus it can be concluded that:

1. Controlling interest charged on loans has greater impact than controlling the cost of deposits.
2. Controlling of interest rates, greatly affects performance of commercial banks.

5.03 LIMITATIONS

1. Due to limited time of the study, the study considered only the effect of interest rates on banks performance. It was not possible to determine the counter effect of the bill proposal had on charges made by banks. This could be one reason as to why many banks have shown profits irrespective of the adjustments for the Act.
2. The study used average of 91-days TB Three months moving average rate for all banks. This may have had impact on interest expense or interest income.

5.04 RECOMMENDATIONS FOR FURTHER RESEARCH.

The Kenyan banking sector is an important engine to economic growth of any country. The sector both in size and structure covers 11% of the whole economy (CBK, MER:

various issues). This means that any disturbances in the industry may have serious implications in the country.

A study carried out Mugo (2001) recommend that interest rates should be reduced as high interest rates cause bank's failure through non-performing loans.

Also a study by Grace (1999) recommended for control of interest rates, as this will enable the small scale enterprises to thrive through the cheap finance acquitted from banks.

On the other hand, banks have warned that control of interest rates may result to selective lending policies and possibilities of banks relocating to other uncontrolled economies.

Thus a study to establish the way forward from the current position of the studies done on interest rates is highly recommended.

A study can also be carried out to show the impact of the controlling interest rates beyond the domestic effects.

APPENDIX i

THE CENTRAL BANK OF KENYA (AMENDMENT) BILL. 2000

A Bill for An Act of Parliament to amend the Central Bank of Kenya Act

ENACTED by the Parliament of Kenya as follows:

1. This Act may be cited as the Central Bank of Kenya (Amendment) Act, 2002 and shall come into operation on the 1st January 2001.
2. The Central Bank of Kenya Act is amended by inserting the following new section immediately after section 38.

39. (1) the Bank shall ensure that the maximum interest rate charged by specified banks and specified financial institutions is the 91 day Treasury Bill rate published by the Bank on the last Friday of each month, plus four per centum.

(2) The Bank shall ensure that any monies held in deposit accounts in specified banks and financial institutions receive a minimum of seventy per-centum of the 91 day. Treasury Bill rate published by the Bank on the last Friday of each month.

APPENDIX ii

Chapter 491 (rev 1984)

39, The bank may from time, acting in consultation with the Minister, determine and publish maximum rates of interest which specified banks or specified financial institutions may pay on deposit and charge for loans or advances: Provided that the bank may in consultation with the Minister determine different rates of interest:

i) for different types of deposits and loans; and

ii) for different types of specified bank and financial institution.

APPENDIX iii

COMMERCIAL BANKS OPERATING IN KENYA AS AT 31ST DEC 2001

		Peer group code
1.	African Banking Corp. Ltd.	3
2.	Akiba Bank Ltd.	3
3.	Bank of Baroda (K) Ltd.	3
4.	Bank of India	3
5.	Barclays Bank of Kenya Ltd	1
6.	Biashara Bank of Kenya Ltd	4
7.	CFC Bank Ltd	1
8.	Chase Bank (K) Ltd.	4
9.	Charter House Bank Ltd.	4
10.	Citibank N.A	1
11.	City Finance Bank Ltd.	4
12.	Commercial Bank of Africa Ltd.	1
13.	Consolidated Bank of Kenya Ltd.	2
14.	Co-operative Bank of Kenya Ltd.	2
15.	Co-operative Merchant Bank	3
16.	Credit Agricole Indosuez	2
17.	Credit Bank Ltd.	4
18.	Daima Bank Ltd.	4
19.	Development Bank of Kenya Ltd	3
20.	Diamond Trust Bank of Kenya Ltd.	2
21.	Dubai Bank Kenya Ltd	5
22.	Equatorial Commercial Bank	4
23.	Euro Bank Ltd.	4
24.	Fidelity Commercial Bank	4
25.	Fina Bank Ltd.	2
26.	First American Bank of Kenya	2

27.	Gurdian Bank Ltd	3
28.	Giro Commercial Bank Ltd	2
29.	Habib Bank A.G. Zurich	3
30.	Habib Bank Ltd.	3
31.	Imperial Bank Ltd.	3
32.	Industrial Development Bank Ltd	4
33.	Investment & Mortgages Bank.	2
34.	Kenya Commercial Bank	1
35.	K-Rep Bank Ltd	4
36.	Middle East Bank Kenya Ltd.	2
37.	National Bank of Kenya	1
38.	National Industrial Credit bank	2
39.	Paramount Universal Bank Ltd.	4
40.	Prime Bank Ltd.	3
41.	Southern Credit Banking Corp Ltd	4
42.	Stanbic Bank Kenya Ltd.	2
43.	Standard Chartered (K) Bank	1
44.	The Delphis Bank	3
45.	Trans-national Bank Ltd.	4
46.	Victoria Commercial Bank	3

Peer group code	**Description**
0	Unrated
1	Assets over Kshs. 10 bn
2	Assets Kshs. 5 bn – 9.9 bn
3	Assets Kshs. 3 bn – 4.9 bn
4	Assets Kshs. 1 bn – 2.9 bn
5	Assets Kshs. 0-0.99 bn

Source:

Directory of Commercial Banks. Financial Institutions. Building Societies. Mortgage Finance Companies and Foreign Exchange Bureaus.

APPENDIX IV

Schedule of 91 – Treasury Bill rates published last Friday of every month in year 2001.

Month	Average interest rate (%)	3-months moving average (%)
Jan	10.805	11.080
Feb	15.401	14.514
Mar	13.920	14.998
Apr	9.818	10.194
May	10.432	12.589
Jun	10.061	11.058
July	12.944	11.963
Aug	12.661	12.759
Sep	11.981	12.641
Oct	11.504	12.178
Nov	11.281	11.653
Dec	10.854	11.293

Source: Newspapers

BALANCE SHEET AS AT 31/12/2001	BARCLAYS	CFC	CITIBANK	CBA	COOP	KCB	NBK
ASSETS	KSHS.000	KSHS.000	KSHS.000	KSHS.000	KSHS.000	KSHS.000	KSHS.000
1. Cash & Balances with CBK	6,799,000	454,404	2,158,076	1,763,152	2,353,269	7,015,518	682,073
2. Government Securities	10,289,000	1,318,919	7,280,042	5,033,050	1,814,876	10,277,018	0
3. Deposits & Bala. Due from Banking Institu	3,317,000	1,400,400	4,043,231	3,592,421	719,430	2,739,605	589,243
4. Govt & other securities held for dealing purposes	0	622,491	0	0	0	0	0
5. Interest receivable & other assets	1,229,000	602,102	1,381,686	532,787	372,754	5,361,629	828,324
6. Tax recoverable	54,000	17,422	0	0	115,572	495,547	178,006
7. Loans & advances (net)	45,654,000	5,280,434	12,104,484	4,345,757	14,801,097	34,987,282	18,336,948
8. Investments Securities	0	0	0	526,425	0	22,520	33,361
9. Balance due from group companies	3,607,000	0	0	0	0	0	0
10. Investment associates	0	0	0	0	0	12,219	0
11. Investment in subsidiaries	0	0	0	0	85,099	0	19,963
12. Investment properties	0	132,900	0	0	0	0	0
13. Property & equipment	1,749,000	567,248	680,900	431,604	2,495,769	2,871,990	1,337,222
14. Intagible assets	155,000	10,424	0	0	160,213	6,907	134,504
15. Deferred tax assets	192,000	39,799	61,896	25,592	682,187	1,415,973	1,903,274
16. Retirement benefits assets	604,000	0	0	0	0	0	0
Total Assets	**73,647,000**	**10,446,543**	**27,710,315**	**16,250,788**	**23,600,266**	**65,206,208**	**24,042,918**
Liabilities							
17. Customer deposits	56,788,000	5,509,952	20,804,835	13,444,157	17,220,051	46,841,852	17,402,448
18. Deposits & balances from other bank insti	13,000	0	1,457,420	501,662	1,452,556	3,136,142	351,523
19. Balances due to CBK	0	0	0	0	0	400,000	2,064,133
20. Other money market deposit	0	0	0	0	0	0	0
21. Borrowed funds	816,000	786,000	0	0	1,894,692	3,132,088	708,403
22. Balance due to group companies	1,198,000	0	0	0	0	0	21,976
23. Interests payable & other liabilities	3,432,000	1,890,699	1,374,706	382,802	1,418,720	3,316,322	765,771
24. Tax payable	0	38	58,748	26,190	648	0	0
25. Amount due to subsidiary companies	0	0	0	0	0	0	0
26. Dividend payable	0	0	0	0	0	0	271,977
27. Deferred tax liability	0	0	0	0	0	0	0
28. Retirement benefit liability	0	0	0	0	0	0	0
Total liabilities	**62,247,000**	**8,186,689**	**23,695,709**	**14,354,811**	**21,986,667**	**56,826,404**	**21,586,231**
Share holders funds							
29. Share capital	1,852,000	600,000	2,861,610	1,000,000	1,210,324	1,496,000	1,000,000
30. Share premium	0	0	0	0	0	473,800	370,585
31. Reserves	7,465,000	160,959	0	218,480	521,699	155,699	620,075
32. Retained earnings(Acc deficits) pre-Acq loss	0	1,090,771	1,152,986	577,497	-2,440,496	6,254,305	-5,376,165
33. Proposed dividend	284,000	80,400	0	100,000	0	0	0
34. Shareholders loans & grants	0	0	0	0	2,321,796	0	5,842,192
Total Shareholders equity	**11,400,000**	**1,932,130**	**4,014,606**	**1,895,977**	**1,613,599**	**8,379,804**	**2,456,687**
Total libilities & shareholders equity	73,643,000	10,446,543	27,710,315	16,250,788	23,600,266	65,206,208	24,042,918

	CONSOLIDA	CREDIT AG.	DIAMOND	FINA BANK	FIRST AMERI	GIRO COMM	I & M	MIDDLE EAST.	STANBIC
	Kshs. 000	Kshs. 000	Kshs. 000	Kshs. 000	Kshs. 000	Kshs. 000	Kshs. 000	Kshs. 000	Kshs. 000
1	371,454	623,466	659,736	389,171	409,325	563,369	514,900	226,427	458,562
2	678,050	1,677,750	1,456,389	992,172	2,087,118	185,500	938,569	753,300	1,408,333
3	319,165	488,549	1,072,587	176,679	798,474	314,361	906,894	1,015,872	507,582
4	0	0	0	0	0	0	0	0	0
5	74,833	195,787	94,333	174,529	115,131	93,697	25,454	216,921	185,065
6	0	3,052	24,680	790	0	0	25,516	2,382	25,093
7	767,862	2,303,011	1,789,406	2,690,004	2,922,805	2,795,102	3,576,142	1,465,563	3,071,297
8	781	0	27,858	0	53	14,958	396	0	0
9	0	419,626	0	0	0	0	0	0	259,001
10	0	0	168,165	0	0	0	0	0	3,153
11	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	837,339	0	0
13	963,757	58,130	183,419	203,487	45,315	139,804	263,747	391,120	461,228
14	0	0	0	9,527	0	0	0	0	0
15	0	24,858	53,706	6,064	11,038	12,318	11,123	2,332	244,334
16	0	0	0	0	0	0	0	0	0
	3,175,902	**5,794,229**	**5,530,279**	**4,642,423**	**6,389,259**	**4,119,109**	**7,100,080**	**4,074,517**	**6,623,648**
17	1,751,998	3,812,066	3,888,650	4,036,679	4,771,271	3,595,529	5,203,414	3,026,436	5,525,807
18	0	1,610	130,849	11,955	375,000	18,261	610,369	185,343	146,207
19	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	85,000	0	0
21	20,000	864,859	20,000	0	0	0	0	0	0
22	0	16,274	0	0	0	0	0	0	16,305
23	583,100	375,961	240,751	85,856	75,848	126,987	83,385	147,395	193,042
24	19,245	0	0	0	21,960	2,929	0	0	0
25	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0	0	0
	2,374,343	**5,070,770**	**4,280,250**	**4,134,490**	**5,244,079**	**3,743,706**	**5,982,168**	**3,359,174**	**5,881,361**
29	1,119,530	693,138	318,000	350,000	1,000,000	309,500	75,000	506,831	1,260,000
30	0	0	16,320	0	0	0	0	0	0
31	352,070	0	109,972	0	0	0	0	0	127,655
32	-670,041	30,321	773,937	157,933	145,180	65,903	327,912	170,500	-645,368
33	0	0	31,800	0	0	0	40,000	38,012	0
34	0	0	0	0	0	0	0	0	0
	801,559	**723,459**	**1,250,029**	**507,933**	**1,145,180**	**375,403**	**1,117,912**	**715,343**	**742,287**
	3,175,902	**5,794,229**	**5,530,279**	**4,642,423**	**6,389,259**	**4,119,109**	**7,100,080**	**4,074,517**	**6,623,648**

	NIC	ABC	AKIBA	BANK of INDIA	BARODA	COOP MER	DEVELOP	GURDIAN
	Kshs. 000	Kshs. 000	Kshs. 000	Kshs. 000	Kshs. 000	Kshs. 000	Kshs. 000	Kshs. 000
1	860,851	235,594	213,225	217,200	423,065	263,247	85,651	333,110
2	2,191,059	922,253	350,456	1,748,256	1,969,350	9,750	723,456	408,227
3	632,253	216,821	152,433	191,908	69,138	311,025	245,233	167,405
4	0	40,333	135,875	0	0	0	0	0
5	140,284	48,610	11,341	44,195	82,301	42,794	51,693	62,525
6	0	0	0	0	0	31,923	0	2,681
7	4,106,125	1,258,387	2,236,337	809,449	1,207,732	1,703,764	1,825,251	2,589,855
8	0	0	62,986	0	9,615	0	49,481	0
9	0	0	0	0	0	0	0	0
10	0	0	2,250	0	0	0	0	0
11	50,501	0	0	75,000	0	0	0	0
12	0	0	7,381	0	0	0	0	0
13	408,636	233,228	84,040	43,001	65,609	9,044	489,132	50,112
14	18,136	833	12,000	0	0	386	0	0
15	0	4,732	0	0	0	0	743	11,232
16	0	0	0	1,511	0	0	0	0
	8,407,845	**2,961,151**	**3,268,324**	**3,130,520**	**3,826,810**	**2,371,933**	**3,479,640**	**3,625,147**
17	5,570,985	2,400,240	2,188,680	2,602,169	3,324,472	2,152,926	643,533	2,888,301
18	108	59,005	376,485	65,097	7,104	366,110	40,732	0
19	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0
21	172,327	0	0	0	0	0	1,119,298	0
22	42,026	0	0	0	0	452	0	0
23	177,637	148,908	88,666	72,115	111,828	33,410	3,528,520	102,114
24	1,427	1,444	1,169	8,211	0	0	5,320	0
25	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0
27	34,951	0	8,002	0	174	0	98,636	0
28	0	0	0	0	0	0	0	0
	5,999,101	**2,609,597**	**2,663,002**	**2,747,592**	**3,443,578**	**2,552,898**	**2,260,011**	**2,990,415**
29	412,073	300,000	500,000	300,000	282,272	202,500	347,500	450,375
30	299,943	0	0	0	0	0	0	0
31	145,825	0	104,822	9,278	60,000	0	240,638	0
32	1,468,489	51,554	0	73,650	40,960	-383,465	433,148	184,357
33	82,414	0	500	0	0	0	69,500	0
34	0	0	0	0	0	0	128,843	0
	2,408,744	**351,554**	**605,322**	**382,928**	**383,232**	**-180,965**	**1,219,629**	**634,732**
	8,407,845	**2,961,151**	**3,268,324**	**3,130,520**	**3,826,810**	**2,371,933**	**3,479,640**	**3,625,147**

	HABIBI AG-ZU	HABIB	IMPERIAL	PRIME	DELPHIS	VICTORIA COMM	BIASHARA	CHASE BANK
	Kshs. 000	Kshs. 000	Kshs. 000	Kshs. 000	Kshs. 000	Kshs. 000	Kshs. 000	Kshs. 000
1	318,962	303,502	272,561	391,264	30,907	238,303	321,526	100,889
2	1,453,150	1,618,238	494,739	562,313	210,050	538,350	681,885	186,138
3	922,169	85,000	251,807	325,739	73,321	298,727	406,655	124,943
4	0	0	0	0	0	0	0	0
5	43,637	43,789	77,310	241,049	39,549	32,955	8,519	63,286
6	0	0	0	0	3,949	0	0	0
7	690,797	699,006	2,389,757	1,548,281	1,359,926	1,491,185	916,749	470,867
8	0	0	287	10,329	0	12,818	21,823	0
9	15,031	126,444	0	0	0	0	0	0
10	0	0	0	0	0	54,160	0	0
11	0	0	0	0	0	0	0	0
12	0	0	0	21,771	0	0	0	0
13	57,075	19,304	132,985	57,334	78,686	87,498	34,597	22,013
14	0	0	0	0	0	0	0	1,402
15	13,374	14,272	25,633	4,558	0	6,192	9,896	2,601
16	0	0	0	0	0	0	0	0
	3,514,195	**2,909,555**	**3,645,079**	**3,162,638**	**1,796,388**	**2,760,188**	**2,401,650**	**972,139**
17	2,957,228	2,437,674	2,938,179	2,109,526	2,235,429	2,173,168	1,872,935	571,188
18	41,936	50,000	21,363	389,277	131,854	58,997	50,000	20,660
19	0	0	0	0	0	0	0	0
20	15,000	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0
22	1,520	7,651	0	0	0	0	0	0
23	139,072	86,273	122,323	186,093	109,222	61,130	69,386	31,330
24	1,716	0	3,506	1,255	0	2,141	2,774	10,059
25	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	1,583	0
27	0	11,618	0	0	0	0	0	0
28	17,673	0	0	0	0	0	0	0
	3,160,645	**2,593,215**	**3,085,371**	**2,686,151**	**2,476,505**	**2,295,436**	**1,966,678**	**633,237**
29	272,500	250,000	350,000	370,000	500,000	399,149	291,600	300,000
30	0	0	0	0	0	0	0	0
31	0	66,340	0	106,487	0	0	0	0
32	81,050	0	174,708	0	-1,180,117	65,603	84,212	33,902
33	0	0	35,000	0	0	0	29,160	5,000
34	0	0	0	0	0	0	0	0
	353,550	**316,340**	**559,708**	**476,487**	**-680,117**	**464,752**	**404,972**	**338,902**
	3,514,195	**2,909,555**	**3,645,079**	**3,162,638**	**1,796,388**	**2,760,188**	**2,401,650**	**972,139**

	CHARTERHOUSE	CITY FINANCE	CREDIT BANK	DAIMA BANK	EQUITORIA COM	FIDELITY COMM	IDB	K-REP
	Kshs. 000	Kshs. 000	Kshs. 000	Kshs. 000	Kshs. 000	Kshs. 000	Kshs. 000	Kshs. 000
1	104,892	6,967	168,789	81,150	206,808	98,717	22,667	46,437
2	417,748	62,634	649,350	3,902	864,932	215,371	74,046	191,332
3	668,087	64,082	42,666	54,056	198,482	144,535	356,835	99,359
4	0	0	0	0	0	0	5,494	0
5	14,806	3,566	23,225	24,649	8,247	26,954	23,243	6,729
6	0	0	0	0	0	0	697	0
7	664,765	498,462	654,179	551,623	952,135	696,240	1,133,953	708,703
8	10,125	0	0	0	0	0	42,818	20,653
9	0	0	0	0	0	4,576	0	0
10	0	0	0	0	0	25	0	0
11	0	0	0	40	0	17,587	0	0
12	0	0	0	0	0	20,500	120,000	0
13	20,153	75,792	22,616	5,740	46,928	5,454	34,673	968,283
14	4,893	351	0	1,269	0	0	45,711	0
15	1,981	87,165	5,223	27,919	6,030	2,321	0	3,299
16	0	0	0	0	0	0	0	0
	1,907,450	**799,019**	**1,566,048**	**750,348**	**2,283,562**	**1,232,280**	**1,860,137**	**1,173,335**
17	1,529,396	32,061	1,089,628	691,656	1,849,245	880,662	146,615	40,490
18	0	0	63,067	0	5,874	80,000	0	0
19	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0
21	0	140,628	0	0	0	0	1,020,548	0
22	0	0	0	0	0	0	0	0
23	47,136	235,959	62,896	20,326	55,477	32,211	97,725	92,571
24	2,782	0	2,777	0	698	2,648	38,120	7,064
25	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	28,980	0
27	0	0	0	0	0	0	3,696	0
28	0	0	0	0	0	0	0	0
	1,579,314	**408,648**	**1,218,368**	**711,982**	**1,911,294**	**995,521**	**1,335,774**	**509,125**
29	300,000	1,506,322	300,000	150,000	306,159	214,563	257,600	500,000
30	0	0	0	0	0	2,891	0	0
31	0	0	0	0	0	0	118,082	0
32	28,136	-1,115,951	47,680	-111,634	66,109	18,305	148,681	49,028
33	0	0	0	0	0	0	0	0
34	0	0	0	0	0	1,000	0	115,182
	328,136	**390,371**	**347,680**	**38,366**	**372,268**	**236,759**	**524,363**	**664,210**
	1,907,450	**799,019**	**1,566,048**	**750,348**	**2,283,562**	**1,232,280**	**1,860,137**	**1,173,335**

	SOUTH CREDIT	PARAM UNI	TRANS-NAT	EURO BAN	DUBAI
	Kshs. 000	Kshs. 000	Kshs. 000	Kshs. 000	Kshs. 000
1	227,402	195,732	176,333	70,419	70,433
2	182,689	199,912	173,100	54,865	0
3	80,663	190,500	44,519	0	323,976
4	47,738	0	0	0	0
5	48,151	50,907	15,711	4,919	39,950
6	4,266	3,522	1,393	0	0
7	1,201,829	883,411	884,750	1,296,109	293,882
8	0	0	0	0	0
9	0	0	16,400	0	0
10	31,532	0	0	0	0
11	16,600	0	214,582	0	0
12	50,000	0	0	0	0
13	102,915	26,849	18,716	7,462	91,495
14	678,313	3,264	5,899	0	0
15	222,411	3,814	36,605	796	0
16	0	0	0	0	0
	2,894,479	**1,357,911**	**1,588,008**	**1,434,569**	**819,736**
17	1,625,920	1,032,106	692,608	847,622	491,162
18	17,927	20,239	60,000	300,000	0
19	0	0	0	0	0
20	0	0	0	0	0
21	0	0	0	0	0
22	0	0	17,885	0	0
23	142,178	37,266	127,112	256,007	26,323
24	0	0	0	0	1,708
25	0	0	0	0	0
26	0	0	0	0	0
27	0	0	0	0	4,150
28	0	0	0	0	0
	1,786,025	**1,089,611**	**897,605**	**1,403,629**	**523,343**
29	1,137,213	259,937	503,722	75,000	293,113
30	0	0	0	0	0
31	16,100	0	0	0	0
32	-44,859	8,363	136,681	-84,060	3,280
33	0	0	50,000	40,000	0
34	0	0	0	0	0
	1,108,454	**268,300**	**69,403**	**30,940**	**296,393**
	2,894,479	**1,089,611**	**1,588,008**	**1,434,569**	**819,736**

Profit & Loss Accounts for Year 2001	BARCLAYS	CFC	CITIBANK	CBA	COOP BANK	KCB	NBK
	Kshs. 000	Kshs. 000	Kshs. 000	Kshs. 000	Kshs. 000	Kshs. 000	Kshs. 000
1. Interest income	8,129,000	1,153,166	1,976,506	1,440,525	2,271,010	6,608,506	2,128,294
2. Interest Expense	-1,358,000	-511,332	-734,581	-597,019	-1,313,677	-2,511,504	-992,805
3. Net interest income (loss)	6,771,000	641,834	1,241,925	843,506	957,333	4,097,002	1,135,489
4. Other operating income	4,491,000	941,485	490,731	459,677	1,097,985	4,693,390	1,303,183
5. Total operating income (loss)	11,262,000	1,583,319	1,732,656	1,303,183	2,055,318	8,790,392	2,438,672
6. Operating expenses	-7,027,000	-1,322,852	-1,033,415	-787,484	-2,858,219	-8,397,356	-2,761,252
7. Profit before exceptional items	4,235,000	260,467	699,241	515,699	-802,901	393,036	-322,580
8. Share of loss in associate companies	0	0	0	0	0	-6,870	0
9. Exceptional Items	0	0	0	0	0	-16,872	0
10. Profits (loss) before taxation	4,235,000	260,467	699,241	515,699	-802,901	369,294	-322,580
11. Taxation	-1,280,000	-68,643	-280,642	-161,964	151,892	12,686	621,448
12. Profit (loss)for the year	2,955,000	191,824	418,599	353,735	-651,009	381,980	298,868

	STANCHART	CONSOLIDA	CREDIT AG.	DIAMOND	FINA BANK	FIRST AMERICA	GIRO COMM	I & M	MIDDLE EAST
	Kshs. 000	Kshs. 000	Kshs. 000	Kshs. 000	Kshs. 000	Kshs. 000	Kshs. 000	Kshs. 000	Kshs. 000
1	5,381,175	182,299	539,956	553,200	625,244	657,771	522,753	688,175	343,206
2	-1,375,858	-71,676	-246,216	-256,483	-393,598	-293,071	-325,775	-406,438	-184,543
3	4,005,317	110,623	293,740	296,717	231,646	364,700	196,978	281,737	158,663
4	2,487,655	193,427	127,367	74,073	65,547	213,136	60,247	94,068	74,115
5	6,492,972	304,050	421,107	370,790	297,193	577,836	257,225	375,805	232,778
6	-3,269,132	-317,186	-358,352	-312,383	-245,601	-350,341	-227,640	-274,702	-152,678
7	3,223,840	-13,136	62,755	58,407	51,592	227,495	29,585	101,103	80,100
8	0	0	0	0	0	0	0	0	0
9	0	0	0	-7,000	0	0	0	0	0
10	3,223,840	-13,136	62,755	51,407	51,592	227,495	29,585	101,103	80,100
11	-988,612	0	-32,434	-10,475	-18,284	-72,831	-11,168	-32,944	-25,684
12	2,235,228)	-13,136	30,321	40,932	33,308	154,664	16,417	68,159	54,416

	STANBIC	NIC	ABC	AKIBA	BANK of INDIA	BANK of BARODA	COOP MERC	DEVELOPMENT	GURDIAN
	Kshs. 000	Kshs. 000	Kshs. 000	Kshs. 000	Kshs. 000	Kshs. 000	Kshs. 000	Kshs. 000	Kshs. 000
1	585,172	1,027,699	358,932	306,685	334,917	398,784	317,773	392,537	409,920
2	-379,539	-278,317	-186,506	-195,412	-132,627	-159,149	-316,724	-170,525	-223,632
3	205,633	749,382	172,426	111,273	202,290	239,635	1,049	222,012	186,288
4	156,796	105,022	110,756	97,168	81,292	65,487	16,947	133,160	68,159
5	362,429	854,404	283,182	208,441	283,582	305,122	17,996	355,172	254,447
6	-652,864	-477,364	-242,244	-186,432	-168,048	-253,036	-383909	-245,442	-198,813
7	-290,435	377,040	40,938	22,009	115,534	52,086	-365,913	109,730	55,634
8	-3,721	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0
10	-294,156	377,040	40,938	22,009	115,534	52,086	-365,913	109,730	55,634
11	83,373	-123,206	-13,367	-5742	-44,249	-19,346	0	-38,636	-14,132
12	-210,783	253,834	27,571	16,267	71,285	32,740	-365,913	71,094	41,502

	HABIBI AG-ZU	HABIB	IMPERIAL	PRIME	DELPHIS	VICTORIA COMM	BIASHARA	CHASE BANK
	Kshs. 000	Kshs. 000	Kshs. 000	Kshs. 000	Kshs. 000	Kshs. 000	Kshs. 000	Kshs. 000
1	377,430	353,885	615,320	368,117	357,964	303,617	292,179	117,657
2	-154,412	-153,606	-287,626	-205,594	-211,874	-176,739	-102,067	-40,901
3	223,016	200,279	327,694	162,523	146,090	126,878	190,652	76,756
4	50,767	77,137	81,148	92,149	38,089	50,809	34,774	12,938
5	273,785	277,416	408,842	254,672	184,179	177,687	225,426	89,694
6	-160,939	-179,314	-261,224	-199,380	-702,732	-157,677	-154,620	-59,692
7	112,846	98,102	147,618	55,292	-518,553	20,010	70,806	30,002
8	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0
10	112,846	98,102	147,618	55,292	-518,553	20,010	70,806	30,002
11	-38,728	-25,558	-45,983	-14,662	234,951	-9,876	-21,982	-9,916
12	74,118	69,544	101,635	40,628	-753,504	10,224	48,824	20,086

	CHARTERHOUSE	CITY FINANCE	CREDIT BANK	DAIMA BANK	EQUITORIA COMM	FIDELITY COMM	IDB	K-REP
	Kshs. 000	Kshs. 000	Kshs. 000	Kshs. 000	Kshs. 000	Kshs. 000	Kshs. 000	Kshs. 000
1	249,671	52,143	212,653	70,446	250,548	195,445	181,496	170,300
2	-102,746	-1,327	-103,464	-54,210	-138,857	-91,648	-71,973	-20,460
3	146,925	50,186	109,189	16,236	141,691	103,497	109,523	149,840
4	29,811	9,889	25,682	27,497	47,904	19,114	34,885	35,525
5	176,736	60,705	134,871	43,733	189,595	122,611	144,408	185,364
6	-84,529	-59,200	-97,253	-82,547	-162,202	-96,766	-365,792	-128,474
7	92,207	1,505	37,618	-38,814	27,393	25,845	-221,384	58,890
8	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0
10	92,207	1,505	37,618	-38,814	27,393	25,845	-221,384	58,890
11	-28,170	-1,684	-11,458	19,200	-9,998	-8,532	1,920	-16,697
12	64,037	179	26,160	-19,614	17,395	17,313	219,464	42,193

	SOUTH CREDIT	PARAM UNI	TRANS-NAT	EURO BANK	DUBAI
	Kshs. 000	Kshs. 000	Kshs. 000	Kshs. 000	Kshs. 000
1	32,980	176,136	108,735	175,051	80,178
2	-28,496	-104,156	-50,302	-163,986	-24,830
3	4,484	71,981	58,433	11,065	55,348
4	6,072	19,916	396,318	126,407	16,644
5	10,556	91,697	454,751	137,472	71,992
6	-74,662	-79,807	-224,510	-214,369	-61,845
7	-64,106	12,090	230,241	-76,897	10,147
8	0	0	0	0	0
9	0	0	-9,151	0	0
10	-64,106	12,090	221,090	76,897	10,147
11	18,834	-3,727	30,543	1	-5,108
12	-45,272	8,363	351,633	76,898	5,039

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