

**THE IMPACT OF FINANCIAL LIBERALIZATION ON
SELECTED FINANCIAL SECTOR DEVELOPMENT
INDICATORS IN KENYA**

UNIVERSITY OF NAIROBI
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fulfillment of the requirements for the Degree of
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DECLARATION

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

SIGNED: _____

DATE: ^{8TH} OCTOBER 2002

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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 parents:

Mrs. Agnes Mutuli Musau

Mr. Phillip Musau Nyumu

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ABSTRACT

This paper highlights issues of financial sector reform and its impact on financial sector development. The paper first gives a brief background on economic liberalization which encompasses financial liberalization. It then outlines the perceived benefits of financial liberalization to the financial sector from a theoretical standpoint and assesses whether these have actually been realized in Kenya.

Financial liberalization is a broad topic and its total impact to the financial sector cannot be exhaustively covered in this paper. Various studies have been conducted in sub-Saharan countries to assess the impact of financial liberalization on the financial sector. Such studies have concentrated on only a few selected financial sector development indicators and this paper therefore seeks to replicate the same for the Kenyan financial sector. The results of these comparative studies have been summarised in the literature review.

The study focuses on three indicators of financial sector development which have been used in similar studies on Sub-Saharan economies. These indicators are the degree of financial deepening as proxied by the ratio of broad money (M2) to Gross Domestic Product (GDP), the spread between commercial banks' lending and deposit rates and the real interest rate.

The results of the data analysis on financial liberalization have been dismal; despite a modest increase in financial depth in the financial sector, the spread between deposit and lending rates has widened whilst the real interest rates increased but savings remained low. The results from this study on Kenya are therefore mixed and have not conclusively confirmed the theoretical postulates.

1 INTRODUCTION

1.1 BACKGROUND

1.1.1 Economic Liberalization

Financial liberalization falls under the broader umbrella of economic liberalization. Economic liberalization can be broadly defined as the introduction of policy shifts in the management of a country's economy that result in a free market based system. Economic reforms geared towards liberalization are generally brought about by the desire of governments in developing countries (referred to as G77) which have previously existed in controlled economic regimes. Most reforms have been introduced through the implementation of Structural Adjustment Programmes (SAPs).

The World Bank and the IMF argue that liberalization is necessary to bring a developing country from crisis to economic recovery and growth. Economic growth driven by private sector foreign investment is seen as the key to development. These agencies argue that the resulting national wealth will eventually "trickle down" or spread throughout the economy and eventually to the poor.

The achievement of social well-being is not an integral component of liberalization but a hoped-for result of applying free market principles to the economy. The process of adjustment is one of "sacrifice of present pain for future hope".

1.1.2 Structural Adjustment Programmes (SAPs)

Economic policy reforms are in fact prescriptions for the strategic management of national economies towards the attainment of sustainable development.

These strategic economic policy reforms are broadly referred to as Structural Adjustment Programmes (SAPs). "Structural adjustment" is the name given to a set of "free market" economic policy reforms sometimes imposed on developing countries by the Bretton Woods institutions as a condition for receipt of loans. SAPs were designed to improve a country's foreign investment climate by eliminating trade and investment regulations, to boost foreign exchange earnings by promoting exports, and to reduce government deficits through cuts in spending.

SAPs focus on domestic economic adjustment to the priority goals of sustainable development, self-sufficiency and greater popular participation in economic planning and decision-making.

The Bretton Woods institutions, namely the International Monetary Fund and the World Bank, have emerged as the steering arms towards the ultimate union of the global economy and the alleviation of poverty (by bridging the gap between the rich and the poor nations).

Kenya is a member of the IMF and has therefore been subject to the SAPs over the last few years. The liberalisation process in Kenya has exhibited varying degrees of success although the Enhanced Structural Adjustment Facility (ESAF) was discontinued in July 1997 due to various "governance" conditions that the government repeatedly failed to comply with. The recently (October 2000)

negotiated reform package with the IMF under the new Poverty Reduction and Growth Facility (PRGF) is currently under suspension in Kenya.

Although SAPs differ somewhat from country to country, they typically include:

- a shift from growing diverse food crops for domestic consumption to specializing in the production of cash crops or other commodities (like rubber, cotton, coffee, copper, tin etc.) for export;
- abolishing food and agricultural subsidies to reduce government expenditures;
- deep cuts to social programmes usually in the areas of health, education and housing and massive layoffs in the civil service;
- currency devaluation measures which increase import costs while increasing export competitiveness;
- liberalization of trade and investment and high interest rates to attract foreign investment;
- privatization of government-held enterprises.

1.1.3 Measures imposed under SAPs in Kenya

Kenya has over the last few years implemented various economic reforms under the SAP as recommended by the IMF. The reforms have resulted in a free market based system that has continued to attract foreign direct investment into the country. The following are some of the measures imposed under SAPs in Kenya:

➤ *Exchange and trade regimes*

- Removal of import licenses;
- Abolition of Foreign Exchange Allocation Committee (FEAC) and Import Management Committee (IMC);
- Exporters given an additional benefit through granting of retention accounts for ease of accessing foreign exchange;
- Freeing of interest rates and exchange rates after the repeal of the Exchange Control Act in 1994.

➤ *Monetary reforms*

- Improvements in the regulation of the financial sector by strengthening the Bank Supervision Department of the Central Bank;
- Financial sector reforms, the introduction of the Capital markets Authority to oversee the Nairobi Stock Exchange;
- Granting autonomy to the Central Bank of Kenya with the primary goal of containing inflation and maintaining a stable but market based exchange rate [through enactment of the Central Bank of Kenya (Amendment) Act 1996].

➤ *Parastatal reform*

- Committees such as Parastatal Reform Policy Committee and the Department of Government Investment and Public Enterprises (in the Treasury) were formed to handle the divestiture process and reform of strategic government bodies;
- Restructure of Kenya Ports Authority, Kenya Airways, Kenya Posts & Telecommunications Corporation, Kenya Railways, Kenya Tea Development

Authority, National Cereals & Produce Board and establishment of Kenya Wildlife Services as an independent entity;

- Retirement schemes in government ministries and related parastatals under the famous "Golden handshake".

➤ *Price de-controls*

The government moved away from price controls and left the same to be market determined by the forces of demand and supply.

➤ *Fiscal reforms*

- Establishment and strengthening of the Kenya Revenue Authority to improve on revenue collection;
- Expenditure limits to the government through a fixed overdraft account;
- Modifying tax structure to cover a wide range of taxpayers e.g. VAT, Income Tax, Customs and excise duties, Transportation Levy, etc;
- Cost sharing introduced in virtually all the government ministries e.g. Health, Education, Agriculture, etc.

➤ *Expenditure reforms*

Civil service and parastatals have to account for their expenditures to the Public Investment Committee and the Public Accounts Committee

➤ *Civil service Reform*

Rationalisation of the civil service structure so as to improve efficiency.

➤ *Export Promotion*

Formation of an Export Promotion council and Export Promotion zones.

➤ *Environmental Reforms*

Establishment of National Environmental Secretariat.

➤ *Political Reforms*

Multi-Party political system introduced through repeal of section 2(a) of the constitution of Kenya. This had a positive impact on the political will to implement economic reforms.

1.1.4 Financial Sector Reforms In Kenya (1989 To 1996)

The following are some of the financial sector reforms undertaken by the Kenya government towards the attainment of financial liberalization in the period under study. They were issued through various circulars, prudential guidelines, Government reports and speeches by the Central Bank of Kenya (CBK) and other government units:

➤ *1989*

- Financial Sector Assistance Programme (FSAP) credit approved. FSAP credit effective and indirect Monetary Policy initiated, legislation providing for establishing Capital Markets Authority passed by parliament;
- Maximum saving and deposit rate payable by Banks and NBFIs raised by 0.5% and maximum lending rate for loans and advances not exceeding three years raised to 15.5%;
- In the year, the Banking Act (1968) was revised strengthening the activities of the Central Bank of Kenya.

➤ *1990*

- Capital Markets Authority established;

- Rate on one-year Treasury Bond increased by 0.5% to make it more attractive; minimum saving deposit rate increased by 1% together with maximum lending rate for loans with maturities of up to three years;
- Treasury Bill rate increased by 1%;
- Requirement removed that ceilings on loan interest include all lending related charges and fees, permitting institutions to set their lending rates to reflect current market conditions;
- Treasury Bill rate fully liberalised at the end of the year.

➤ 1991

- June: Consolidated Bank of Kenya Act effected, providing for the transfer of assets and liabilities of banks and NBFIs with solvency problems to Consolidated Bank of Kenya
- Interest rates fully liberalized
- Convertible Foreign Exchange Bearer Certificates (Forex-Cs) introduced. This was a milestone in foreign exchange liberalisation
- Exchange Controls partially relaxed by withdrawing the clause covering declaration of foreign currency held by incoming travelers

➤ 1992

- Minimum capital/assets ratio for banks raised to 7.5% from 5.5%;
- Prudential guidelines for self-regulation of financial institutions including Code of Conduct for Directors, Chief Executives and other employees; duties and

responsibilities of external auditors and provision for bad and doubtful advances;

- Secondary market in Forex-Cs established;
- Marginal cost raised by 1% for additional Shs 50m in CBK advances and rediscounts of government securities to ensure that commercial banks with overdrafts at the CBK exceeding Shs 50m are appropriately sanctioned;
- Retention scheme introduced allowing 100% retention of foreign exchange earnings from non-traditional exports; commercial banks allowed to borrow forex to finance tea and coffee purchases in auctions; banks allowed to open forex accounts for coffee and tea buyers/sellers;
- New penalties announced for commercial banks failing to observe the cash ratios and liquidity ratios;
- Retention scheme extended to cover traditional exports of goods at 50%.

➤ *1993*

- Retention scheme extended to service sector at 50% while the foreign exchange allocation by the CBK was abolished; Forex-C made redeemable at market exchange rates; official shilling exchange rate devalued by 25%; retention account suspended;
- Margin on CBK advances and discounts to banks increased; cash ratio increased from 6% to 8%;
- Kenya shilling devalued by 33%; maturity life of securities to be eligible for rediscounting reduced to 45 days or less; new penalty for banks failing to observe the mandatory cash ratio announced;

- Re-introduction of retention scheme (50% of all forex); commercial banks allowed to effect foreign payments for their private clients without reference to CBK; import licensing system prohibited and restricted imports freed; dissolution of restriction on importation of assembled commercial vehicles; maximum import tariff reduced from 60% to 50% and tariff rate bands from 9 to 7;
- Introduction of one-way foreign exchange auction system; cash ratio raised to 10% from 8%; government paper eligible for rediscounting restricted by lowering maturities (Treasury Bills-halfway and Bonds-45 days or less); securities accepted as eligible collateral for overnight loans;
- A two-tier foreign exchange auction system introduced; Nairobi clearing house new arrangements effected to eliminate automatic provision of CBK credit to banks; registration of Forex-C holders with banks in order to facilitate repurchase at negotiated or market price; registration of Forex-Cs by banks with CBK;
- Kenya shilling allowed to float freely; cash ratio raised from 10% to 12% with balance above the minimum to earn interest at 35% p.a.; CBK starts daily forex transactions with commercial banks; commercial banks allowed to continue purchasing forex for oil and petroleum products from the market and CBK; CBK continues entering into forward contracts for sale of forex to facilitate purchase of oil and related products at market rates; credit guidelines abolished;

- Cash ratio raised from 12% to 14% with excess balances earning 35% p.a.; restriction on remittance of profits, dividends and expansion earnings lifted; residents allowed to borrow abroad up to US\$ 1 million.

➤ *1994*

- Cash ratio increased from 14% to 16% with interest paid on bank balances at CBK in excess of 10% reduced from 25% to 20%;
- Foreign exchange retention raised to 100%; residents allowed to open foreign currency accounts with banks in Kenya; restriction on local borrowing by foreign controlled companies removed; foreigners allowed to pay for hotel bills and air tickets in either foreign or local currency;
- Liquidity ratio for commercial banks and NBFIs set to be maintained at 5% and 10% respectively; cash ratio raised from 16% to 20% and interest payment on commercial banks deposits with CBK withdrawn;
- Open Market Operations (OMO) sale of Treasury Bills to be at least 0.5% below the weekly average tender rate; commercial banks to borrow from CBK for a maximum of four consecutive days and no more than ten days in any one month;
- Kenya accepts obligations of Articles of Agreement of the International Monetary Fund; foreign currency account holders encouraged to retain some of their deposits overseas under the care of commercial banks and commercial banks required to back such funds with 100% foreign assets; determination of the exchange rate by market forces; cash ratio lowered from 20% to 18%;

announced requirement for NBFIs to open accounts with the CBK for purposes of maintaining cash ratio.

➤ *1995*

- Authorisation and licensing of forex bureaus announced; foreign investors allowed to participate in the Nairobi Stock Exchange (NSE) under guided policy on ownership; reaffirmation that the regulatory body of the NSE would be the Capital Market Authority;
- Commercial banks required to observe foreign exchange exposure limit of 20% of the paid-up capital plus unimpaired reserves; newly converted NBFIs to observe half the mandatory 18% of the cash ratio and later required to observe 18% by December 1995;
- Tightened conditions for overnight loans and rediscounting at the CBK (Bills held at 50% of life to maturity for overnight loans and 75% for rediscount eligible); banks lending in the interbank market not allowed to borrow overnight from the CBK;
- Banks required to submit weekly forex returns every Monday, off-balance sheet items excluded from computation of foreign currency exposure aiming to minimize forex exposure risk and enhance the stability of the financial system;
- Investment compensation fund established to protect investors against losses arising from equity trading; foreign capital regulations revised to enable foreigners to own up to 40% of local companies listed in the NSE and equity participation by a single investor increased from 2.5% to 5%;

- Liquidity ratio fixed at 25% for both banks and NBFIs and 20% for mortgage finance companies; minimum investment in treasury bills under OMO lowered to shs 100,000 from shs 1,000,000; procedure for renewal of licenses by banks and NBFIs modified; commercial banks allowed to exclude deposits of financial institutions from cash ratio base; banks to submit monthly returns of parastatal deposits in addition to monthly statistical returns;
- CBK launches a redesigned treasury bill that conforms with the magnetic ink character recognition cheque clearing system;
- Banking Act amended to raise the minimum paid-up capital requirement; CBK starts paying 5% interest on all cash balances held by commercial banks and NBFIs to facilitate a reduction in bank lending rates; NBFIs requirement to invest 50% of their total assets in treasury bills withdrawn;
- Repeal of Exchange Control Act; cash ratio raised to 18%.

➤ 1996

- CBK to display OMO rates on the Reuters screen to encourage independent decision on quotation for purchase of Treasury Bills; measures taken to improve effectiveness of secondary trading in financial instruments (introduction of Central Depository System);
- Treasury bills for 30, 90 and 180 days replaced with 28, 91 and 182 days while discontinuing the 60 and 270 day bills; 5% interest received by commercial banks on their cash balances at the CBK discontinued.

1.2 STATEMENT OF THE PROBLEM

The objectives of financial liberalization broadly defined are to increase the size, improve the efficiency and strengthen the risk management capabilities of the financial sector, and to increase the diversity of the reforming economy.

These objectives are linked to the fact that an efficient and developed financial sector will enhance the productive system of an economy and will help the economy adjust more easily to external shocks.

The key relationships of financial liberalization to other macroeconomic variables are rooted in theory and have been postulated as (Montiel 1995):

- Financial liberalization will ensure positive real interest rates and this will raise savings rates; furthermore, market-determined interest rates will lead to a better allocation of domestic savings, investments and growth.
- There is a positive correlation between the degree of financial deepening and economic growth/financial sector development.
- Inflows of foreign capital augment domestic resources and may thus permit greater and more efficient investments.

In fulfilling these aspects the financial sector has two distinct roles (Montiel 1995):

- a) It identifies the most promising projects and monitors the behavior of entrepreneurs.
- b) It channels resources from savers to investors, which tends to improve the efficiency of financial intermediation and enhance the effectiveness of monetary policy.

Moving towards a market based financial system is important and has been linked empirically to a more efficient allocation of capital and higher economic growth (Montiel, 1995). In the last three decades several developed and developing countries have moved towards liberalization of their financial systems. Countries eased or lifted bank interest rate ceilings, lowered compulsory reserve requirements and entry barriers, reduced government interference in credit allocation decisions, and privatized many banks and insurance companies. Some countries have also actively promoted the development of local stock markets, and encouraged entry of foreign financial intermediaries.

However, the benefits of liberalization as postulated by various researchers (Section 2 - Literature Review) have not accrued to most economies that have implemented financial sector reforms aimed at liberalization. Literature drawn from sub-Saharan countries with similar economies to Kenya's has yielded mixed results and therefore the relationship between financial liberalization and financial sector development may not be as clear-cut as indicated by the various studies (see section 2.3.1).

From the conventional literature covered and evidence brought to bear, it is clear that some of the desired results of financial liberalization have not been achieved in some countries. In some countries it has even been followed by financial crisis and a temptation to move back to controls i.e. financial repression e.g. Malaysia, Zambia and Zimbabwe have since reverted to foreign exchange controls. It is therefore important to determine whether the same can be said of the Kenyan financial sector.

The research question posed at this stage is whether the performance of selected financial sector development indicators in the Pre Liberalisation period is different from that in the Post Liberalisation era due to the implementation of financial reforms geared towards liberalization.

1.3 OBJECTIVES OF THE STUDY

The study aims at achieving the following:

- To determine whether the performance of selected financial sector development indicators in the Post-Liberalisation period (1994-1999) is significantly different from performance in the Pre-Liberalisation period (1987-1992).

1.4 IMPORTANCE OF THE STUDY

The findings of this study should:

- Provide some background material on the relationship between financial liberalisation and financial sector development in Kenya
- Provide guideline information to the Bretton Woods institutions, learning institutions, academicians, researchers, corporate managers and the general public
- Guide policy makers in government on the effectiveness of financial liberalisation as well as form a basis for suggesting policy changes necessary for the financial sector
- Add value to the existing body of knowledge on the Kenyan financial sector

2 LITERATURE REVIEW

This review highlights issues of financial liberalization and the relationship with financial sector development. This is done by surveying the literature on what has been achieved and researched in economies that are similar to Kenya's (some Sub-Saharan (SSA) countries and Colombia) that have instituted some measure of financial liberalization.

One drawback in the review is that the history of financial reforms in most developing countries is still relatively recent while in others reforms are still going on. This is taken into account while interpreting country experiences. Selected indicators are brought out to show the outcomes where comparable data are available.

2.1 THE NEED FOR FINANCIAL LIBERALIZATION

2.1.1 Financial Liberalization

Financial sector liberalization can in principle include a variety of measures (Montiel, 1995) such as liberalizing interest rates, establishing freedom of entry into and procedures for orderly exit from the banking industry, reducing reserves and liquidity requirements, eliminating or minimizing credit allocation directives, eliminating preferential credit at concessional interest rates, and removing controls in the capital account of the balance of payments.

Financial sector reforms in Kenya have been implemented with the aim of attaining financial sector liberalization. However, it is important to note that financial liberalization and financial sector reform cannot be used interchangeably.

Financial sector reforms comprise both financial liberalization and financial repression. Financial sector reforms implemented by governments are therefore not necessarily geared towards liberalization. Some may in fact re-institute controls as opposed to liberalization, as was the case in Malaysia (1998) after the East Asia crisis.

Controversies have continually dogged the Bretton Woods institutions' drive towards financial liberalization, the worst being the Asian miracle and subsequent crisis (Karunaratne 1999). Both the World Bank and the IMF have been accused of forcing countries into liberalization resulting into financial turmoil.

Karunaratne and others (1999) stipulate that the Asian economic crisis highlighted the need to reform the Bretton Woods institutions by establishing a new global financial architecture that will counteract the adverse effects on the economies of the world caused by mercurial changes in investor confidence and massive cross-border inflows and outflows of short-term capital. These massive cross-border inflows and outflows of short-term capital, which are a direct result of liberalization, and a hallmark of the increased financial globalisation of the world economy, have also increased macroeconomic volatility and pose a disruptive threat to world trade, investment and therefore growth. As a result there is a consensus that the global financial institutions such as the IMF need to be reformed so that they can address the issues of capital hyper-mobility and sudden surges in exchange rate volatility that occur after the process of financial liberalization.

Liberalization has not brought about many of the postulated benefits to East Asian economies. They experienced massive exchange rate depreciations,

stock market losses and shrinking economies. The interest rates rose as expected. Some post liberalization indicators for five Asian countries are tabulated below:

Crisis Economic Indicators for Asia – post liberalization (1994 to 1998)

Country/ Change)	(% (1)	Ex-rate (1)	Stock- Prices (2)	Interest Rate (3)	Real GDP (4)
Indonesia		499	-89	400	-6.8
Malaysia		157	-73	154	-1.8
Philippines		147	-57	127	1.7
Thailand		132	-68	0	-0.4
S. Korea		141	-74	153	-3.8
Average		215	-72	167	-2.2

Source: Data Stream International

Notes

- Col (1): Depreciation of the exchange rate per US\$
- Col (2): Fall in stock market prices
- Col (3): Rise in short-term money market interest rate
- Col (4): GDP growth

Demirguc-Kunt and Detragiache (March 1998) studied the empirical relationship between banking crises and financial liberalization in a panel of 53 countries for the period 1980-1995. They found that banking crises are more likely to occur in liberalized financial systems. However, the impact of financial

liberalization on banking sector fragility is weaker where the institutional environment is strong.

In particular, respect for the rule of law, a low level of corruption, and good contract enforcement are relevant institutional characteristics. They also examined evidence on the behaviour of bank franchise values after liberalization, and on the relationship among financial liberalization, banking crises, financial development, and growth. Their results support the view that financial liberalization should be approached cautiously where the necessary institutions to ensure law and contract enforcement and effective prudential regulation and supervision are not fully developed, even if macroeconomic stabilization has been achieved.

The failure of financial liberalization theory as advocated by Mckinnon and Shaw has led to renewed interest in the pre-conditions necessary for its success. The emerging literature stresses the important role played by macroeconomic stability and the presence of adequate supervisory and monitoring capacity of the central banks (see Montiel, 1995). This literature further delineates on the appropriate role of the government in financial liberalization. Montiel (1995) argues that the government should maintain the following conditions:

- An appropriate legal framework, well established property rights and an efficient judicial system.
- A financial safety-net to avert liquidity crises
- An adequate regulatory and monitoring framework to prevent collusion and excessive risk-taking due to moral hazard problems.
- A potentially successful borrowing class.
- Fiscal adjustment.

These pre-conditions relate to both institutional and macroeconomic reforms.

Generally, the trend towards economic, and therefore, financial liberalization is part of a broader trend towards reduced intervention of the state in the economy.

In a number of developing countries, however financial liberalization is also a deliberate attempt to move away from financial 'repression' as a policy to fund government fiscal imbalances and subsidize priority sectors, a move strongly advocated by the work of McKinnon (1973) and Shaw (1973). According to McKinnon and Shaw, financial repression by forcing financial institutions to pay low and often negative real interest rates, reduces private financial savings, thereby decreasing the resources available to finance capital accumulation.

From this perspective, through financial liberalization, developing countries can stimulate domestic savings and growth, and reduce excessive dependence on foreign capital flows.

King and Levine (1993), among others, have found various measures of financial development to be positively correlated with the growth rate of GDP, suggesting that financial liberalization, by fostering financial development, can increase the long run growth rate of the economy.

2.1.2 Indirect Monetary Control

Roe and Sowa (1994) have identified indirect monetary control as crucial for financial sector development. Indirect monetary control is one of the core objectives of financial liberalization and is defined as an approach that restores to the commercial banks the responsibility for balancing risks and returns and allocating credit. This is done by controlling monetary aggregates including total

credit indirectly; by the way of control over commercial bank reserves, and by using, price-dependent interventions, the interest rates, to achieve that control.

Indirect instruments work through the market by adjusting the underlying demand for and supply of bank reserves, while direct instruments work through particular policy objectives. The indirect instruments are Open Market Operations (OMO), reserve requirements and central bank lending facilities. Using indirect instruments, the central bank can determine the supply of reserve money in the short run. In the long run the central bank can determine the supply of money under a fully flexible exchange rate regime. Literature in this area suggests that for OMO type of instruments to be effective they require supportive changes in other policy instruments, such as reserve requirements (Axilrod, 1995). In addition there should be:

- a competitive banking system
- a developed securities market
- adoption of a particular instrument consistent with the stage and potential for market development

This points to the need for financial liberalization so that banks become competitive and the financial sector becomes developed and sophisticated. For this process to be effective, the use of indirect instruments occurs in two stages. The first is the primary market, where the central bank auctions treasury bills or its own securities. This encourages the emergence of a competitive secondary market. In the second stage, an active secondary market will develop. This will involve a market for central bank or treasury securities and an inter-bank market that offers financing facilities to market participants (see Axilrod, 1995).

However, effective use of central bank or government securities in open market type of operations requires effective coordination between monetary and fiscal authorities. Canteen (1994) argues that for success and effectiveness, the following mechanisms should be provided for:

- Coordination of the amounts to be issued between monetary and fiscal authorities.
- Sterilization of any over-funding of government's budget for monetary management purposes.
- Sharing the cost of this over-funding

These issues will ensure effective open market operation and encourage secondary markets. In the long run, effective indirect monetary instruments will benefit the economy by enhancing the efficiency of financial intermediation and ensuring a more effective monetary control. This is because for effectiveness, monetary policy (or direct instruments of monetary policy) requires a developed financial market. On the other hand, financial sector development also depends on the appropriate monetary policy. Thus the effectiveness of monetary policy will be facilitated or hampered by the developments in the financial system. These two reinforce each other: Effective monetary policy requires an efficient and developed financial sector and vice versa. These interdependencies are very critical and they also determine the failure or success of the transmission mechanism. Roe or Sowa (1994) have shown that there are very important interdependencies between financial sector liberalization in general and the specifics of the adoption of indirect methods of monetary control.

2.1.3 Mobilization of Long-term Savings

The major role of the financial system in any economy is the mobilization of savings and deployment of these resources amongst various competing demands through the process of financial intermediation. Freeing interest rates to market forces has been assumed to raise real interest rates and consequently increases savings. This makes the assumption the initial situation was characterized by financial repression, where interest rates are set below the market clearing levels. The high real interest rates that liberalization brings are supposed to encourage people to save more of their income. However, the evidence is mixed. This is attributed theoretically to the dominating effect between income and substitution effects.

In some countries financial sector liberalization has been followed by a sharp decline in private savings (Kukubo and Ngugi, 1995). Various explanations have been advanced for this outcome. Two of the most important ones relate to the fact that the impact of interest rate changes on savings depends on a country's level of development; for poor countries savings are less sensitive to interest rate changes. Evidence from Ghana shows that savings rates fell even though interest rates rose and therefore the conclusion can be drawn that financial liberalization has not led to drastic improvements in the savings rates in Ghana though it has been rated as a successful performer in the structural adjustment programmes. The relationship between long-term savings and financial liberalization assumes that real interest rates are positive and that savings are responsive to interest rates.

Financial sector liberalization is supposed to lead to financial development. Financial development in turn will lead to greater investment efficiency and mobilization of greater financial resources to finance investments. Lynch (1995) has shown that development of the financial sector improves investment allocation, thereby lifting economic performance. The amount of investment is found to be positively related to financial sector development. Thus the impact of the financial sector on investment hinges on financial sector development, quantity of investment and efficiency of investment allocation. This is because market-determined interest rates may lead to better allocation of domestic savings while inflows of foreign savings that may be triggered will augment domestic-resources, which will then permit greater and more efficient investments.

Empirical studies tend to support the proposition that moderately positive real interest rates have a positive effect on growth (Roubini and Sala-i-Martin, 1992 and Bandiera and others, 1997). Financial markets allow agents to diversify and hedge risk, thereby making high-risk, high-return investments attractive to investors; financial markets also allow the pooling of liquidity risk (Diamond and Dybvig, 1983); stock markets disseminate information over corporate values, and allow the market for corporate control to emerge. Financial intermediaries such as banks make savings available to entrepreneurs who may lack own resources to finance investment and technology acquisition; they also screen and monitor loan applicants, thereby improving the allocation of resources. By exploiting economies of scale, intermediaries can also make savings mobilization more efficient (Levine, 1997).

2.2 FINANCIAL LIBERALIZATION AND THE FINANCIAL SYSTEM

In this section the theory and evidence on financial sector development is reviewed. Indicators of financial sector development and how they evolved after the liberalization are assessed.

Depending on the level of development and macroeconomic stability the possible effects of financial liberalization on economic growth works in three channels (Montiel, 1995; Emenuga, 1996; Oshikoya, 1992):

- Improved efficiency of intermediation—With financial liberalization there is a reduction of the cost of financial intermediation
- Improved efficiency of capital stock—An efficient financial sector will channel funds to high productivity projects and there are positive effects on growth due to increased efficiency of capital stock and reducing the costs of operating the financial system.
- Increases the national savings rate.

The key relations of financial liberalization theory (Oshikoya, 1992 Emenuga, 1996, and Montiel, 1995) that form the basis of financial sector impact assessment are identified as:

- Increased real deposit rates should raise the saving rate
- There is a positive correlation between the degree of financial deepening and economic growth.
- Increased real interest rates will raise the level of investment
- Increased real deposit rates will promote economic growth

The problem with indicators of financial development during financial reform is that these indicators are also used as intermediate targets in the process of liberalization. The indicators may thus show a different outcome. For example, in Nigeria liberalization appears to have prompted a fall in real interest rates, rather than a rise as predicted by the liberalization theory, and financial depth has remained at low levels (Pill and Pradhan, 1995). This, the authors argue, could be the result of soft budget constraints, continued government intervention or other problems in the banking sector. In Nigeria again, inflation rate retarded developments in the financial sector. In such situations, indicators of financial sector development show limited success.

Several indicators can be used to assess the impact of financial sector reforms. The most common is proxy for financial deepening, the ratio of broad money to GDP. This proxy reflects the degree of monetization in the economy and financial development.

Other indicators include the flow of credit to the private sector from the financial sector, the growth of financial institutions' credit to the private sector relative to the growth of private sector deposits with financial institutions, the real rate trend, real GDP growth, the spread between lending and deposit rates, and the ratio of private sector credit to GDP.

2.2.1 Financial Sector Development Indicators

The question asked at this stage is whether financial liberalisation has brought about the desired results with regard to financial sector development. Several indicators mentioned previously can be used and this study shall focus on three

which have been used in studies on similar Sub-Saharan economies. Conducting a similar study in Kenya will therefore facilitate comparisons with these economies with regard to the performance of these key indicators.

The key relations of financial liberalization (Oshikoya, 1992 and Montiel, 1995) and financial sector development theory are therefore identified as:

- **An indicator of financial depth, which is proxied by the ratio of broad money (M2) to Gross Domestic Product (GDP).** Money supply (M2) is defined as the sum total of currency held by the non-bank public, demand deposits held with commercial banks, and time and savings deposits held with commercial banks. The M2/GDP ratio shows the level of monetization in the economy. As financial development takes place, this ratio should rise.
- Another key variable in the financial system is **financial intermediation** as indicated by the **spread between lending and deposit interest rates**, which should tend to zero as the financial sector develops. When it is too large, it is generally regarded as a considerable impediment to the expansion and development of financial intermediation, as it discourages potential savers with low returns from deposits and limits financing for potential borrowers. Financial liberalization is supposed to lead to the use of indirect monetary instruments in the central banks' liquidity management and this is supposed to reduce the lending-deposit rate spread (Emenuga, 1996). This will reduce costs of intermediation. The spread between lending

and deposit rates is used as proxy for efficiency of financial intermediation. As efficiency improves, and as competition within the financial system increases, interest rate spreads can be expected to narrow (Alexander, Baling and Enoch, 1996). That is, with financial liberalization, the financial sector should become efficient, with information flow and low cost of intermediation leading to a decline in the spread between lending and deposit rates. The spreads are influenced by operating costs, default risk, financial taxation and market power.

- **The real interest rate** - to show whether financial liberalization has led to rising and positive real rates. If real interest rates are positive, savings will rise and so will investments and this spurs economic growth. Financial liberalization theory argues that the real deposit rate will be positive and rising so that it will mobilize long-term savings and investment and thus will be positively correlated with economic growth. The high real interest rates that liberalization brings are supposed to encourage people to save more of their income.

Empirical studies of financial liberalization have ideally used the real interest rate as a proxy for financial liberalization (Fry, 1997 and Bandiera and others, 1997). To measure the real interest rate, the rate on short-term Kenya government paper (91 day Treasury Bills) shall be used.

Therefore the key underlying pre-suppositions are:

1. With financial liberalization there is a reduction in the efficiency of financial intermediation (measured by bank lending spreads).
2. Liberalization is positively correlated with financial depth which is proxied by the ratio of broad money (M2) to GDP.
3. With financial liberalization the real interest rate will be positive and rising so that it will mobilize long-term savings and investment and thus will be positively correlated with economic growth.

2.2.2 Sub-Saharan Africa (SSA) Financial Structure

Liberalization has taken place to some extent in some developing countries having economies similar to Kenya's. For the purposes of this study, literature and experiences are drawn from such economies within and without the Sub-Saharan Africa region to determine whether the financial liberalization theory has performed as postulated.

The Sub-Saharan Africa region is made up of some of the following countries: Kenya, Tanzania, Uganda, Zambia, Zimbabwe, Malawi, Botswana, Ghana, and Nigeria. The liberalization experience of these countries is similar and so are their economic and structural profiles. Literature has been surveyed for some of these countries for which similar studies have been conducted i.e. Uganda, Zimbabwe, Ghana and Nigeria.

In SSA countries, the financial structure is dominated by a banking system that is oligopolistic in nature, a few non-bank financial institutions, insurance

companies and stock exchanges. In some countries there is a heavy government presence in the financial system through majority shareholding.

In Kenya, the financial system has been highly segmented; it consists of 53 banks and 11 Non-Bank Financial Institutions (NBFIs); building societies; a long-established but still small stock exchange, forex bureaus and a number of development banks. A few large banks dominate the banking sector; one of the largest of these has government shareholding. These large banks have a tradition of working together rather than of aggressive competition. Pre Liberalisation the banks and NBFIs were regulated separately; for example, the NBFIs were not subject to statutory reserve requirements and were allowed to lend at higher rates than the commercial banks. This differential regulatory environment encouraged banks to expand into NBFIs in order to avoid more stringent requirements. A deposit protection fund was set up in 1986 after the confidence crisis in the banking sector to protect deposits in the financial system. The majority of NBFIs have now converted to commercial banks and the segmented nature of the financial sector has been reduced.

In Ghana, the financial system consists of 13 commercial and secondary banks and some small rural banks, 20 insurance companies and 11 stock exchanges that began operation in 1990. By 1990, the three largest banks controlled 73 percent of all bank deposits. The government and the social security had a majority stake in 8 of the 13 banks. There is currently an informal financial sector that is estimated to be mobilizing savings to the tune of 2 percent of GDP.

Nigeria has a large banking system, with 109 banks. The top five banks account for 47 per cent of total deposits. The federal and state governments control 40 per cent of the commercial banks. There is an active stock exchange even though most capital is raised through the banking system.

These three countries give an indication of the structure of the financial system in most developing countries in SSA. Most governments in these countries, through a series of liberalization efforts, have or are divesting from the banking sector.

Available literature on these indicators and their performance within the selected economies shows results for these indicators that are not consistent with the theoretical postulates thus the need to conduct the same for Kenya.

2.3.1 Performance of Indicators in SSA and elsewhere

➤ *Financial Depth (M2/GDP ratio)*

In Nigeria, the ratio gradually declined from 30% in early 1980's to 23% after liberalization in 1994. Thus the results from the use of this indicator does not give us a clear-cut conclusion in terms of financial development.

For Zimbabwe, the ratio has grown to over 50 per cent (1988) from 26.5 per cent in 1980, but came down slightly to 42% in the 1990s and by 1994 it had increased again to 47.8 per cent. Ghana's ratio increased slightly from 13.5% in 1986 to 18.7% in 1994/5. For Ghana and Zimbabwe, the results were consistent with the theoretical postulates.

➤ ***The spread between lending rates and deposit rates***

Nigeria's spread has been increasing since 1988, from 3.67 per cent to 7.39 per cent in 1994. In Zimbabwe, the spread has increased tremendously in the 1990s, rising from 1.4 percent in 1991 to 8.11 percent in 1994.

Adolfo, Steiner and Salazar (June 1999) examined the determinants of high intermediation spreads observed in the Colombian banking sector for over two decades. During the 1970s and 1980s intermediation spreads traditionally were high, both compared to world levels (Clavijo, 1991) and to those in Latin America (Morris and Others, 1990). The financial system appeared to be highly repressed, inefficient, and noncompetitive, as banks were subject to high rates of financial taxation and exhibited high operating costs and a high degree of concentration and state ownership (Barajas, 1996). Starting in the early 1990s, Colombian policymakers embarked on an economic reform program. The measures sought to increase financial intermediation and facilitate efficiency, competitiveness, and stability of the domestic financial system. However these reforms do not appear to have reduced spreads significantly in Colombia. The spreads actually remained relatively constant on average between the pre liberalization (1974-1988) and the post liberalization (1992-1996) periods. Furthermore, throughout 1988-1995, spreads and overhead expenses continued to be high by international standards: as a percentage of total assets, spreads averaged 6-8 percent, compared to 2-3 percent in industrialized countries.

Financial systems in developing countries have been shown to exhibit significantly and persistently larger intermediation spreads on average than those in developed countries (Hanson and de Rezende Rocha, 1986). These high

spreads have frequently been attributed to such factors as high operating costs, financial taxation or repression, lack of competition, and high inflation rates.

The tentative conclusion that can be drawn from these results is that financial liberalization has led to a widening of the gap between the lending and the deposit rates, rather than what liberalization theory postulates. That is, with financial liberalization, the financial sector should become efficient, with information flow and low cost of intermediation leading to a decline in the spread between lending and deposit rates. The contrary is happening to African countries that have undertaken financial sector reforms.

➤ ***The real interest rate***

Financial liberalization theory argues that the real deposit rate will be positive and rising so that it will mobilize long-term savings and investment and thus will be positively correlated with economic growth. The evidence for the sampled countries shows that the real rate has been negative and falling in most of the years for Zimbabwe and Nigeria. For the two, financial liberalization has not led to positive real interest rates in the whole of the 1990s. Inflation rates and lack of fiscal adjustment in most of these countries could have retarded the developments of the real interest rates to positive levels.

Ghana and Uganda show consistent positive real discount rates in the 1990s. This could be interpreted as a sign of successful financial liberalization.

3 RESEARCH DESIGN

3.1 POPULATION AND SAMPLE

3.1.1 Population

The population of interest is all players in Kenya's financial system comprising the following:

The markets

- The Money market – the market for short-term credit with financial assets of a maturity period of less than one year. Deals with the primary and secondary issues of Treasury Bills, commercial paper, bankers' acceptances and certificates of deposit. This market defines short-term interest rates.
- The Capital market – the market for long-term credit that deals in the primary and secondary issues of Treasury Bonds, Stocks and Corporate Bonds.
- The foreign exchange market – Interbank foreign exchange spot, forward and derivative transactions. This market defines the exchange rate. Forex bureaus trade the retail end of this market.

The regulators

- The Capital Markets Authority – regulates the capital market and oversees the registration of brokers and company listings in the local bourse, the Nairobi Stock Exchange
- The Central Bank of Kenya – regulates the banking sector and oversees the licensing of commercial banks and forex bureaus; formulates and implements monetary policy; fosters the liquidity, solvency and proper functioning of a market based financial system.

The Financial Intermediaries

- The banking sector consisting of 53 commercial banks, 11 NBFIs and 48 forex bureaus licensed to carry out banking business in Kenya under the Banking Act Chapter 488, Part II, Section 4 and 5 and listed in the Directory of Commercial Banks, Financial Institutions, Building Societies and Foreign Exchange Bureaus.
- Stock brokers licensed by the Capital Markets Authority

Other Key Players

The Government, Insurance companies, pension funds, cooperative societies (SACCOs), microfinance institutions, corporates and the general public.

3.1.2 Sample

For the purposes of this study data was drawn from the entire financial system and was collected on the selected key variables that are indicators of overall economic and financial performance.

The study was structured into both the Pre (1987 to 1992) and Post (1994 to 1999) Liberalization periods and performed a comparative evaluation of financial sector performance indicators in the two periods. This was aimed at obtaining a sufficiently adequate number of time series in the pre and post liberalisation periods as defined above.

For the purposes of this study, the period 1992 to 1994 was taken as the period when substantial economic policies geared towards trade liberalization were implemented in Kenya.

3.2 DATA COLLECTION

This study made use of secondary data relating to the macroeconomic framework of the Kenyan economy for the period under study. For the purposes of this study, data on the following variables was obtained to determine the indicators of financial sector development:

➤ *Monetary Sector*

- Broad Money Supply (M2)
- Average nominal interest rate (91-day Treasury Bill rate)
- Commercial bank average deposit and average lending rates

➤ *Real sector*

- Gross Domestic Product (GDP)
- Overall Annual Inflation rate

The data was obtained from the following sources:

1. Annual reports of the Central Bank of Kenya
2. Bank supervision annual reports published by the Central Bank of Kenya
3. Monthly Economic Reviews by the Central Bank of Kenya
4. Statistical Bulletins from the Central Bank of Kenya

5. Commercial Banks and Non-Bank Financial Institutions published financial statements, end period balances obtained from head offices of the institutions and newspapers
6. Annual reports from the Central Bureau of Statistics

The data was recorded directly into a Microsoft Excel spreadsheet for subsequent analysis.

3.3 DATA ANALYSIS

Hypotheses:

Null Hypothesis: There has been no change in the performance of the selected financial sector development indicators after financial liberalization.

Alternative Hypothesis: There has been change in the performance of the selected financial sector development indicators after financial liberalization.

Hypothesis Testing

To compare the data from the two different periods (Pre and Post) for the M2/GDP indicator, the Analysis of Variance (ANOVA) was used to test the difference in the means of the two distributions.

For the other two indicators (deposit lending spread and the real interest rate), the Wilcoxon-Mann-Whitney test for two independent samples was used to establish whether the two underlying populations are centered differently. The estimated U-statistic assumes that the distribution of the sampled data forms assymetric continuous distribution in both the pre and post-liberalization periods and that they are independent.

With the Wilcoxon-Mann-Whitney test, using the combined data for the performance indicators for both the pre and post-liberalization, we note that if the null hypothesis is true then this data should be fairly well mixed. However, if this is not the case and the alternative hypothesis is true, we expect to see post liberalization values clustering above or below those of pre liberalization as the case may be.

4 DATA ANALYSIS AND FINDINGS

4.1 Financial Depth – M2/GDP ratio

Table A1 shows the average annual data for both the pre and post liberalization periods for the ratio.

Table A1 : Indicator of Financial Depth, M2/GDP

Pre-liberalization		Post-liberalization	
Year	M2/GDP	Year	M2/GDP
1987	0.36	1994	0.50
1988	0.34	1995	0.49
1989	0.36	1996	0.45
1990	0.37	1997	0.45
1991	0.39	1998	0.41
1992	0.45	1999	0.40
Mean	0.38		0.45

Chart A1 shows that the ratio was initially low at 0.36 in 1987 and experienced gradual increase during the pre-liberalization period to 0.45 in 1992 after a minimal decline to 0.34 in 1988.

Chart A1 : Pre-Liberalization, M2/GDP ratio

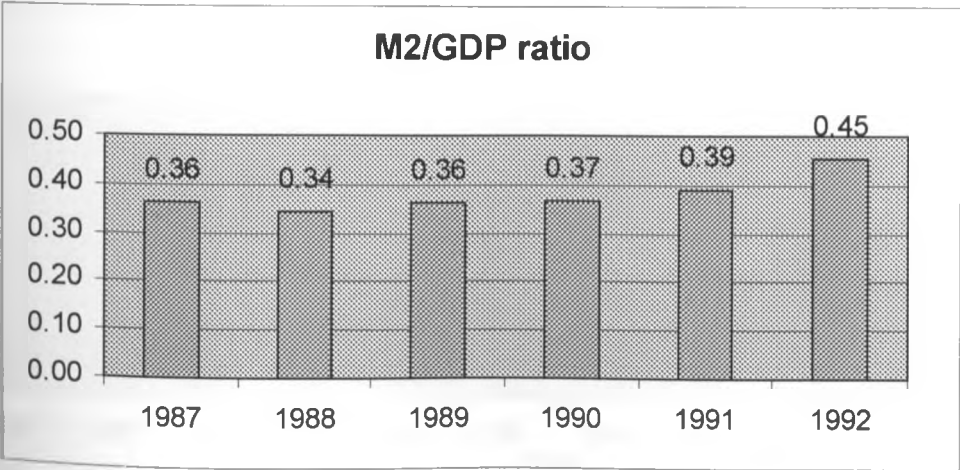
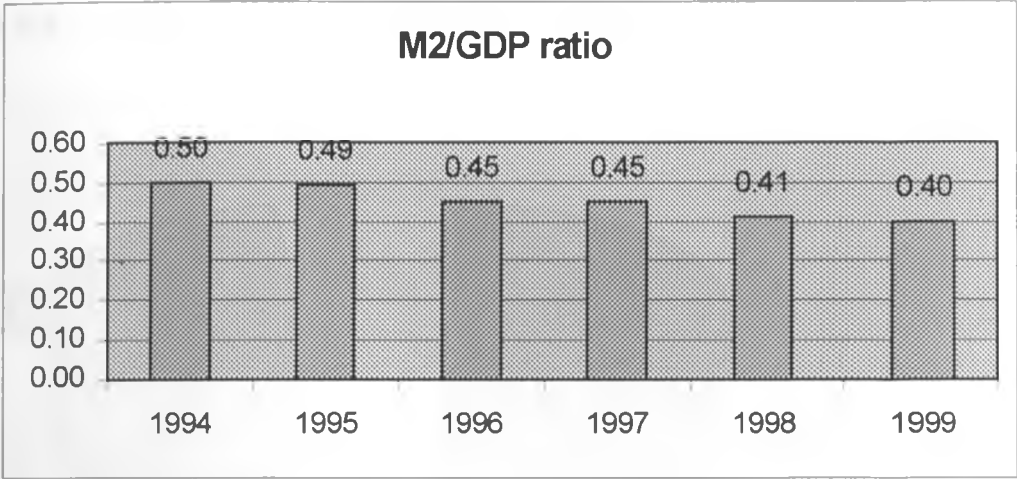


Chart A2 shows that the ratio was initially high at 0.50 in 1994 and experienced gradual decline during the post-liberalization period to 0.40 in 1999.

Chart A2 : Post-Liberalization, M2/GDP ratio



During the post liberalization period (Chart A3) , the relationship between the variable and the factor under play appear to be inversely related which is contrary to the same ratio in the previous period which shows a direct relationship to liberalization i.e. the pre-liberalization variable had a positive influence on the ratio while post-liberalization seemed to exact quite an opposite influence.

Chart A3 : Pre and Post-Liberalization, M2/GDP ratio

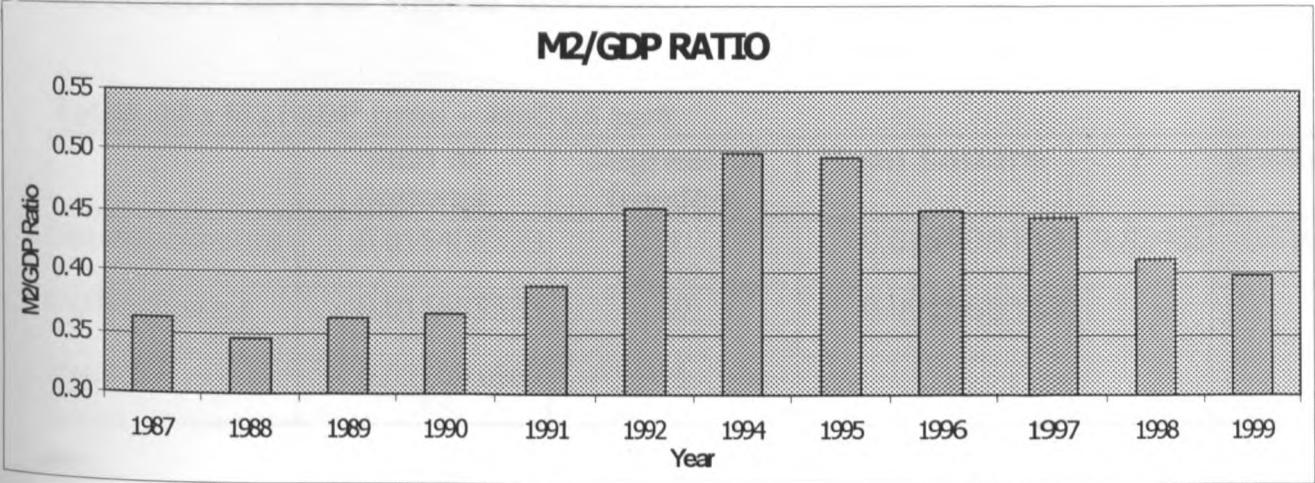


Chart A4 shows that average, the mean ratio in the post-liberalization period of 0.45% is slightly higher than that during the pre-liberalization years of 0.38%. The difference of the mean ratio is 0.07%.

Chart A4 : Pre and Post-Liberalization, Mean Comparison of M2/GDP

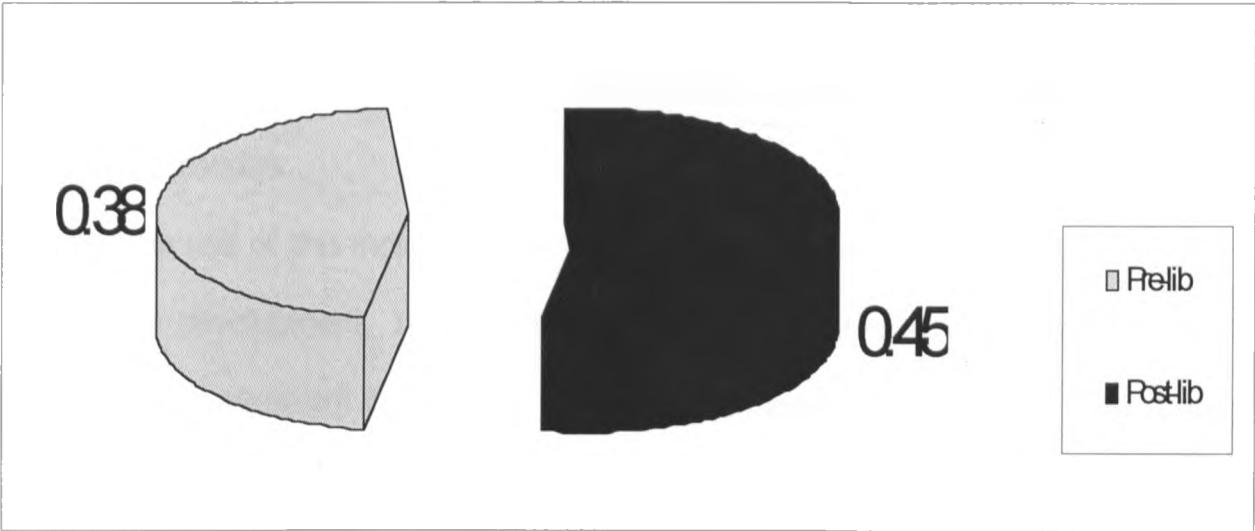


Table A2 uses the ANOVA test to test the difference in the means of the two distributions and gives a p value of 0.01061. The p-value gives the probability of having a true null hypothesis. Therefore at the 95% confidence interval we reject the null hypothesis and state that there has been change in the performance of the M2/GDP ratio after financial liberalization.

Table A2 : M2/GDP ratio - ANOVA test

	Sum of Squares	Degrees of freedom	Mean Square	F	p-value
Between Groups	0.015408333	1	0.015408333	9.82465	0.01061
Within Groups	0.015683333	10	0.001568333		
Total	0.031091667	11			

This therefore points to a modest increase in financial depth after liberalization as postulated by theory. However further test of this particular indicator shows that during the pre liberalization period M2 increased from 61.36bn to 221.26bn (2.61 times) whilst GDP increased from 161.49bn to 491.69bn (2.04 times). The growth in the M2/GDP ratio therefore is attributable to growth in broad money (M2) during the liberalization period and can be explained as resulting from the financial crisis of 1992 and 1993 when the government was involved in major currency printing scandals.

The use of this indicator does not give us a clear-cut conclusion in terms of financial development. It could well be that financial liberalization brought in financial development in the early years and then led to financial crisis in the later years. Central Bank of Kenya (CBK) statistics for the two periods indicate that Kenya’s money supply growth averaged 11% pre liberalization and rose to an average of 29% post liberalization. This shows that the money multiplier was unstable, reflecting loss of control of money supply growth by the Central Bank.

4.2 Financial Intermediation (Spread between lending and deposit rates)

Table B1 : Financial Intermediation, Lending-Deposit spreads

Year	Spread (%)	Year	Spread (%)
1987	4.5	1994	13.0
1988	3.5	1995	13.6
1989	5.8	1996	14.2
1990	5.0	1997	13.6
1991	4.5	1998	13.4
1992	4.6	1999	13.6
Mean	4.64		13.6

Table B1 shows the annual average spreads between lending and deposit rates computed from monthly statistics. Tables B2 and B3 summarise the monthly data for the pre and post liberalization periods respectively.

Table B3 : Lending-Deposit Spreads, Pre Liberalization

Year	Mean	Median	Minimum	Maximum	First	Last
1987	4.50	4.50	4.50	4.50	4.50	4.50
1988	3.50	3.50	3.50	3.50	3.50	3.50
1989	5.75	6.50	3.50	6.50	3.50	6.50
1990	5.00	5.25	4.25	5.25	4.25	5.25
1991	4.50	4.78	2.83	5.25	5.25	4.14
1992	4.61	4.88	3.42	5.24	3.42	5.12
Total	4.64	4.50	2.83	6.50	4.50	5.12

Table B4 : Lending Deposit Spreads, Post Liberalization

Year	Mean	Median	Minimum	Maximum	First	Last
1994	13.03	13.44	8.91	15.51	8.91	12.86
1995	13.56	13.12	12.01	16.22	13.04	16.22
1996	14.17	14.17	13.76	14.59	14.48	13.93
1997	13.61	13.85	12.31	14.33	14.27	13.83
1998	13.42	13.56	12.04	14.31	13.87	13.17
1999	13.58	13.39	12.42	15.45	12.42	15.45
Total	13.56	13.73	8.91	16.22	8.91	15.45

The spread increased from a mean average of 4.64% in the pre-liberalization period to 13.6% in the post liberalization period. The highest observed monthly spread of 16.22% was registered during the post liberalization period in 1995 whilst the lowest was 2.83% recorded during pre liberalization in 1991.

Looking at the average values of the spread in every year for the post liberalization period (Chart B2), we see a high and increasing spread (from 13% in 1994) which reaches its peak at 14.2% in 1996 followed thereafter by a smooth decline to 13.6%. The post-liberalization data show minimal sample distribution spread.

Chart B1 : Pre-Liberalization, Lending-Deposit spreads

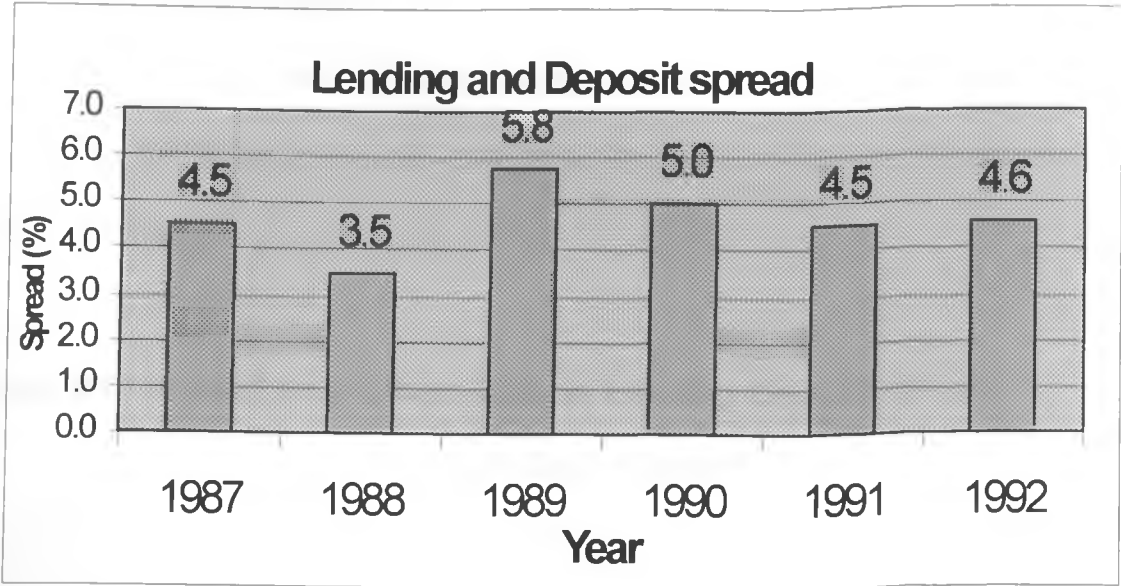
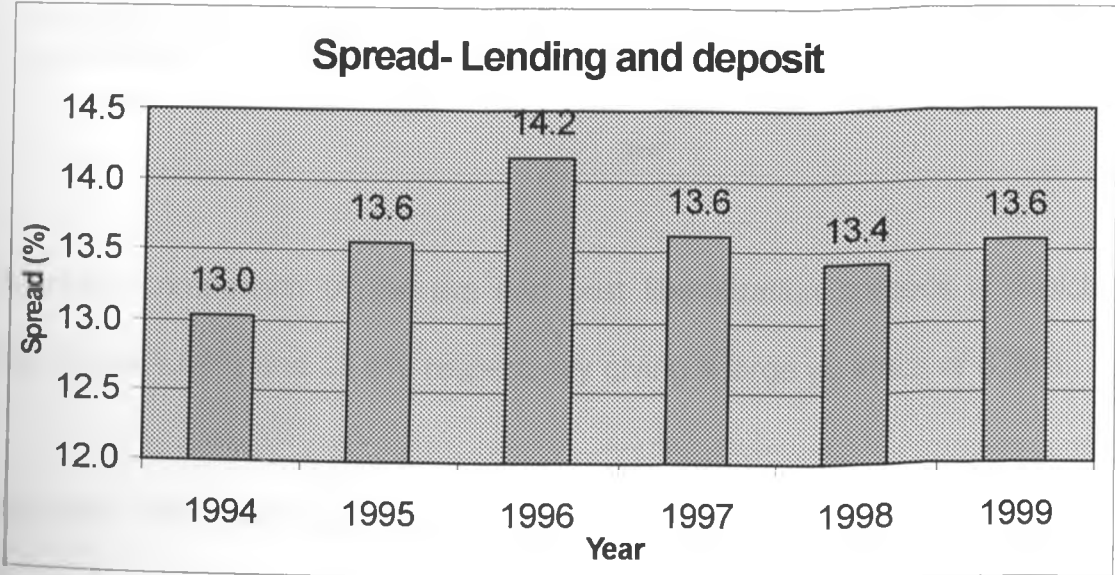


Chart B2 : Post-Liberalization, Lending-Deposit spreads

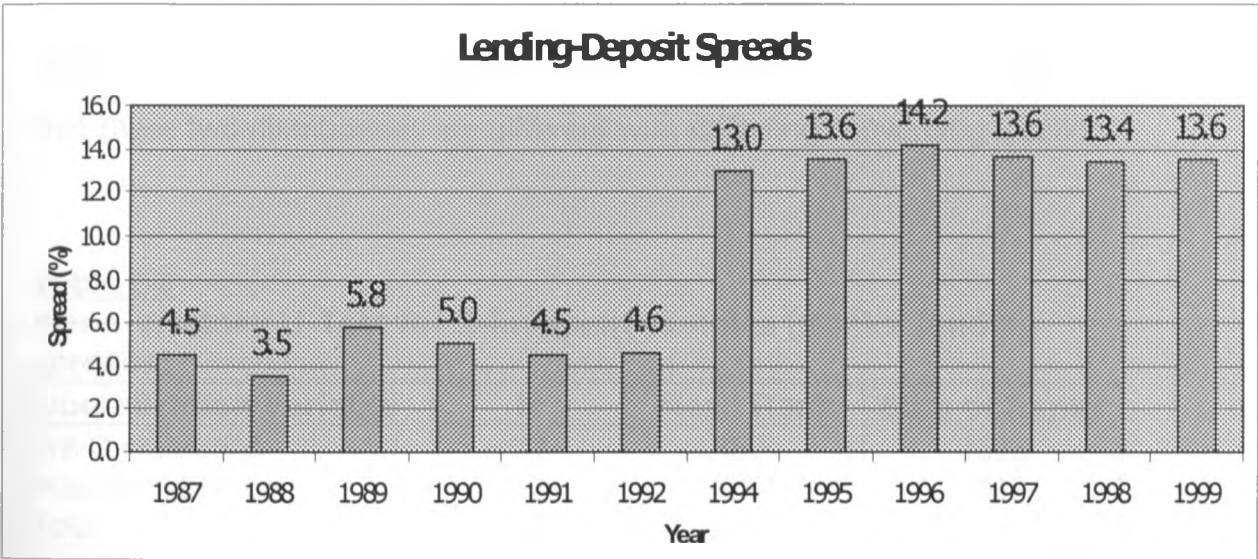


In the same breadth, the annual spreads in the pre liberalization period (Chart B1) are characterised by a slight decline from 4.5% in 1987 to 3.5% in 1988, a relatively high increase in 1999 to 5.8% in 1989 and finally a gradual decline

which stabilized at 4.6% in 1992. The pre-liberalization data also show minimal sample distribution spread.

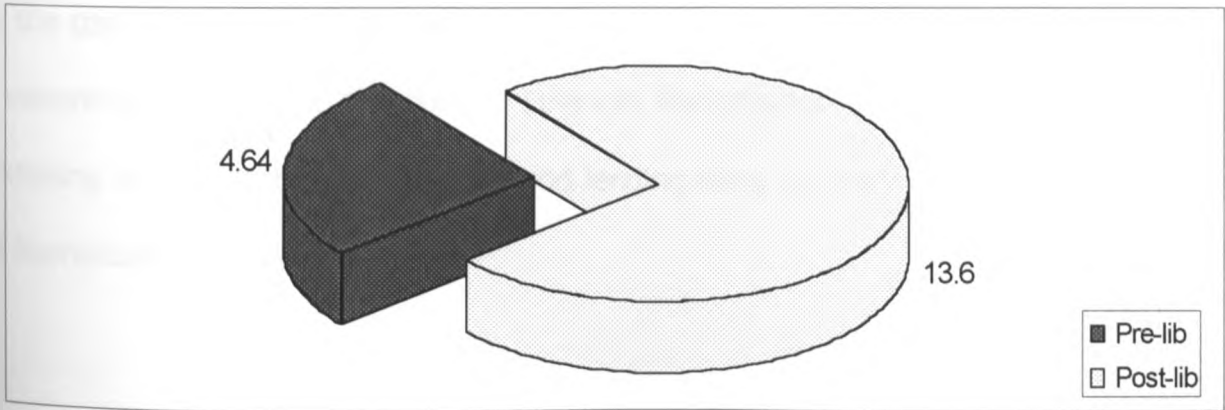
Chart B3 highlights the apparently higher spreads of the post liberalization era (1994 to 1999) when visually compared to those of the pre liberalization era (1987 to 1992).

Chart B3 : Pre and Post-Liberalization, Lending-Deposit spreads



The mean comparison of the pre and post liberalization spreads is depicted in Chart B4 as 4.64% and 13.6% respectively giving a large variance of 8.96%.

Chart B4 : Pre and Post-Liberalization, Lending-Deposit spreads



From the Mann-Whitney U test depicted in Table B4, we test whether the two distributions (the pre and post liberalization spreads of banks' lending and deposit rates) have a different central location or not at a 5% level of significance. We note that the Wilcoxon rank statistic for post liberalization of 7812 is much greater than that of pre-liberalization of 2628 and this shows that the post liberalization spread values were clustered mostly above the pre liberalization spreads. The result derived gives a p-value of 0.00 and this statistic helps us very strongly to reject the null hypothesis and accept the alternative that postulates that these two distributions are different with differing converging locations.

Table B4
Mann-Whitney U-Test for 2-indepent samples (Banks' lending spreads)

Liberalization Variable	N	Mean Rank	Sum of Ranks
Pre-liberalisation	72	36.5	2628
Post-liberalisation	72	108.5	7812
Total	144		

Test Statistic

Mann-Whitney U	0
Wilcoxon W	2628
Z	-10.37248993
Asymp. Sig. (2-tailed)	0.00

From the analysis therefore financial liberalization in Kenya has not led to a closing of the gap between lending rates and deposit rates, but has on the contrary led to a widening of the gap in the spread. Financial liberalization has therefore led to a widening of the gap between deposit and lending rates contrary to the predictions of liberalization theory.

This is supported by Hanson and de Rezende Rocha, 1986 who state that financial systems in developing countries have been shown to exhibit significantly and persistently larger intermediation spreads on average than those in developed countries post liberalization. These high spreads have frequently been attributed to such factors as high operating costs, financial taxation or repression, lack of competition, and high inflation rates.

The tentative conclusion that can be drawn from these results is that financial liberalization has led to a widening of the gap between the lending and the deposit rates, rather than what liberalization theory postulates. That is, with financial liberalization, the financial sector should become efficient, with information flow and low cost of intermediation leading to a decline in the spread between lending and deposit rates. The contrary has happened in Kenya after undertaking financial sector reforms.

4.3 The Real Interest Rate

Table C1 : Real Interest Rate

Pre-Liberalisation		Post-Liberalisation	
Year	Real rate (%)	Year	Real rate (%)
1987	6.31	1994	-18.69
1988	6.31	1995	10.60
1989	0.67	1996	17.41
1990	1.49	1997	11.07
1991	-1.69	1998	14.43
1992	-3.79	1999	10.06
Mean	1.12		7.48

Table C1 shows the annual average real interest rates computed from available monthly statistics. Tables C2 and C3 summarise the monthly data for the pre and post liberalization periods respectively.

Table C2 : Real Interest Rate, Pre-Liberalization

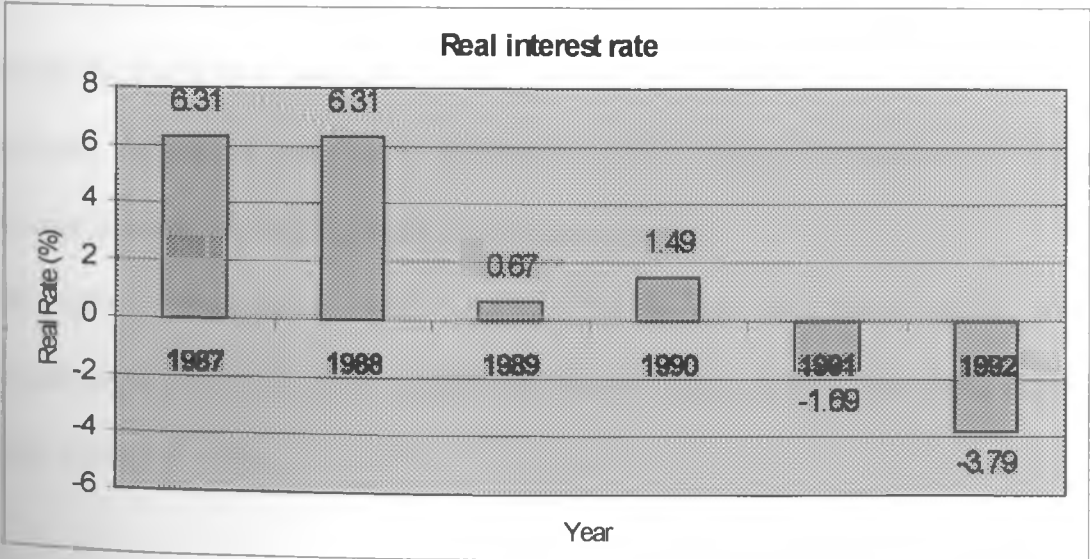
Year	Mean	Median	Minimum	Maximum	First	Last
1987	6.31	6.59	4.91	7.44	6.83	4.91
1988	3.71	4.17	1.58	4.98	4.72	1.58
1989	0.67	0.64	0.16	1.40	1.40	1.03
1990	1.49	1.32	0.97	2.12	0.97	1.33
1991	-1.69	-2.01	-3.52	1.56	1.56	-2.65
1992	-3.79	-3.16	-9.19	-1.09	-1.43	-9.19
	1.12	1.09	-9.19	7.44	6.83	-9.19

Table C3 : Real Interest Rate, Post-Liberalization

Year	Mean	Median	Minimum	Maximum	First	Last
1994	-18.69	-18.69	-25.46	-10.18	-14.80	-10.18
1995	10.60	11.93	-6.20	23.39	-6.20	20.15
1996	17.41	16.21	12.47	23.93	19.46	12.47
1997	11.07	11.10	6.11	15.45	12.18	15.16
1998	14.43	15.18	5.92	17.54	15.05	5.92
1999	10.06	10.67	4.41	16.48	5.09	16.48
Total	7.48	12.79	-25.46	23.93	-14.80	16.48

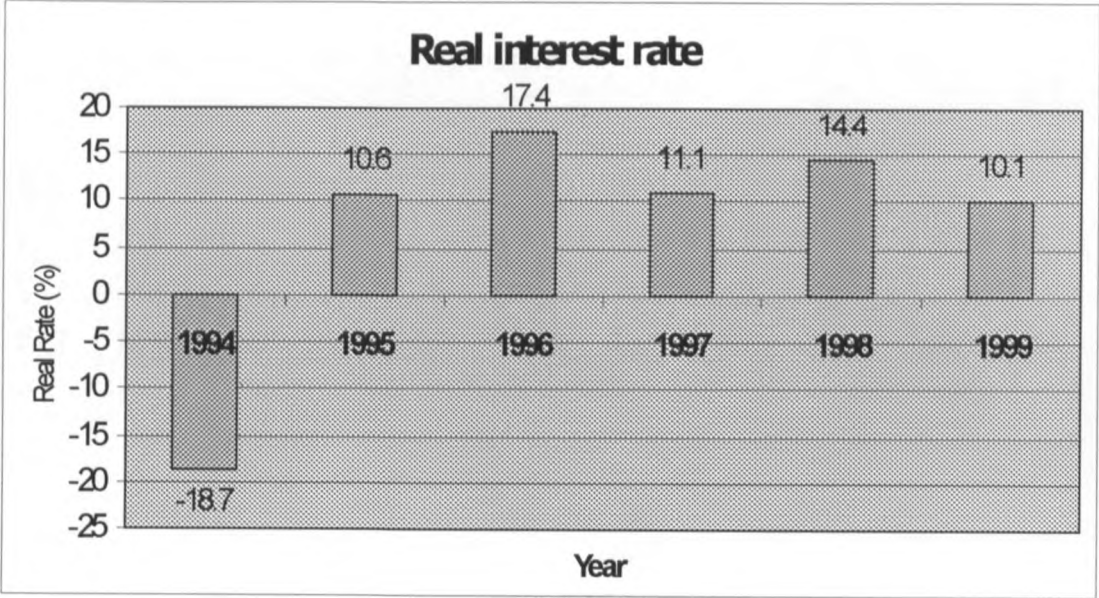
The real interest rate in the pre-liberalization era though positive for most part of the period are really small values compared to those in the post-liberalization.

Chart C1 : Real Interest Rate, Pre-liberalization



During the pre-liberalization period the real interest rate decreased drastically from a mean average of 6.31% in both 1987 and 1988 to a negative rate in 1992 of – 3.79% (Chart C1). The pre-liberalization rates showed a relatively high sample distribution spread.

Chart C2 : Real Interest Rate, Post-liberalization

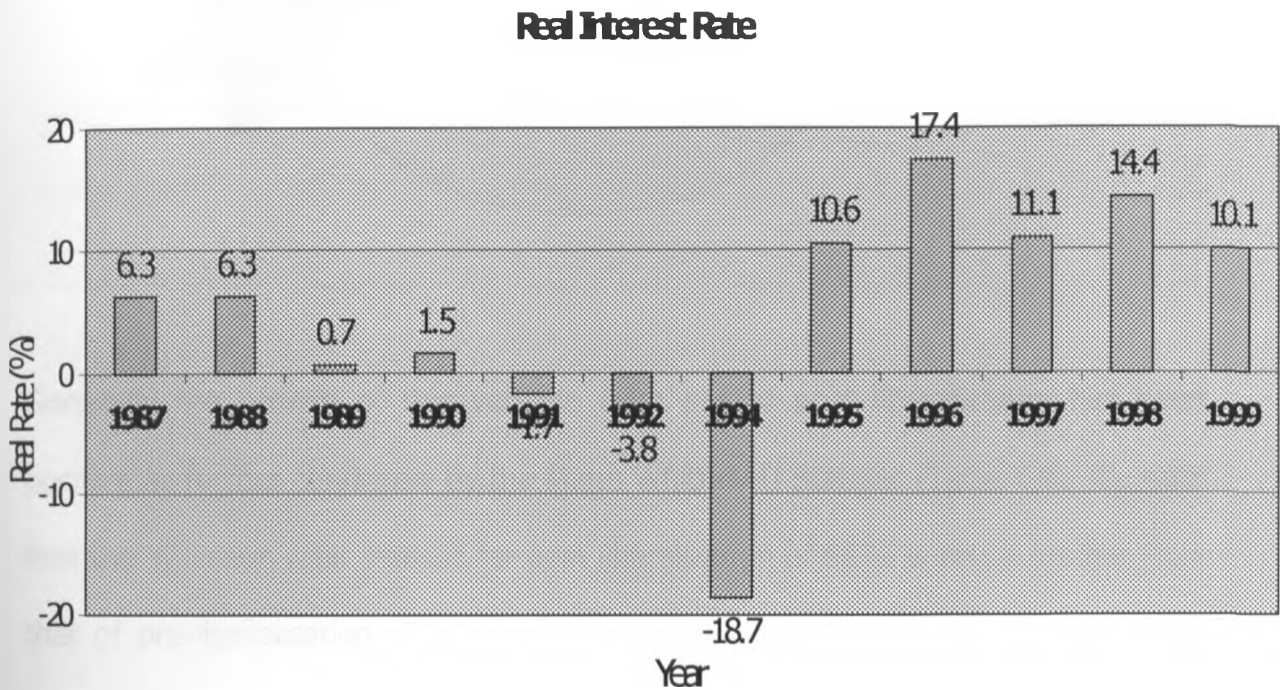


Looking at the annual average values of the real rate for the post liberalization period (Chart C2), we observe a very low starting rate of –18.69% in 1994 which drastically leaps to a peak of 17.41% in 1996 having hit 10.60% in 1995. The rate eratically declines thereafter to 10.06% in 1999. The post liberalization rates also showed a relatively high sample distribution spread.

The highest observed monthly rate of 23.93% was registered during the post liberalization period in 1995 whilst the lowest was –25.46% recorded during the same period in 1994.

Chart C3 highlights the apparently higher real rates of the post liberalization era (1994 to 1999) when visually compared to those of the pre liberalization era (1987 to 1992).

Chart C3 : Real Interest Rate, Pre and Post liberalization

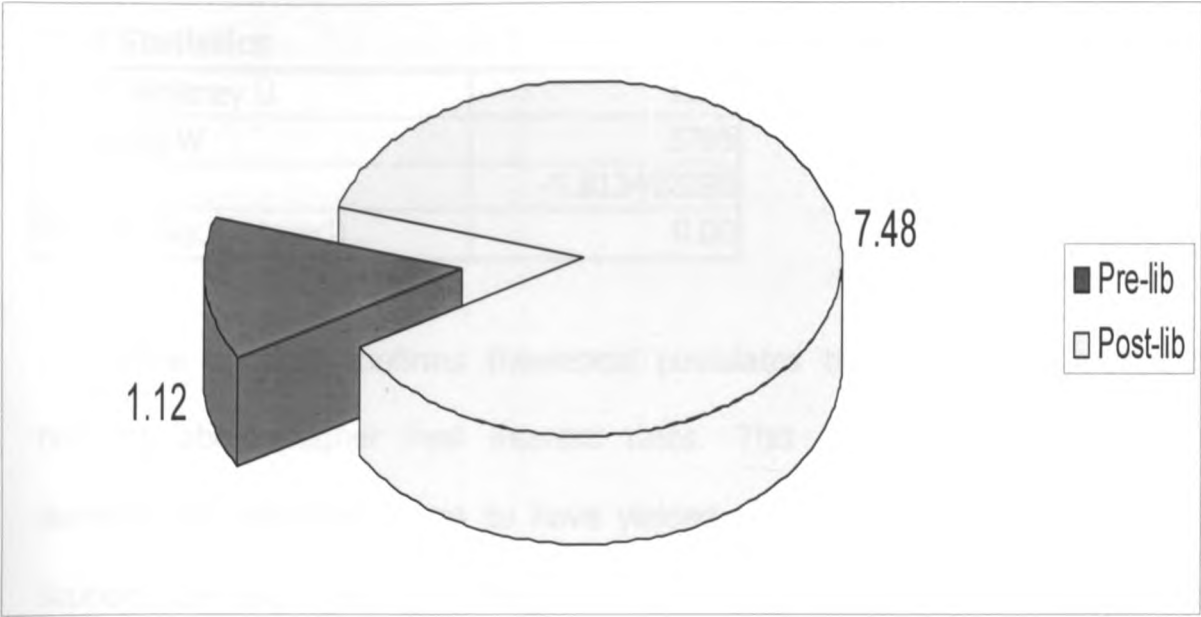


During the post liberalization era, 1994 is the only year that witnessed extremely low sampled real interest rates i.e. it began in January with a value of -14.80%, came to a maximum of -25.46% in February and then systematically declined to a minimum and last value of -10.08 in December.

The mean comparison of the pre and post liberalization spreads is depicted in Chart C4 as 1.12% and 7.48% respectively giving a variance of 6.36%.

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Chart C3 : Mean Comparison, Pre and Post liberalization real rate



Generally the growth of this variable from pre to post liberalization has been positive as further confirmed by the Mann Whitney U Statistic (Table C4). We note that the Wilcoxon rank statistic for post liberalization of 6675 is much greater than that of pre-liberalization of 3765 and this shows that the post liberalization real interest rates were clustered mostly above the pre liberalization rates. With the p-value of 0.00, we reject the null hypothesis that the distributions have the same central location and accept the alternative that says the distributions are different with differing converging locations.

**Table C4 :
Mann-Whitney U-Test for two independent samples (Real Interest Rate)**

Liberalization Variable	N	Mean Rank	Sum of Ranks
Pre-liberalization	72	52.29166794	3765
Post-liberalization	72	92.70833588	6675
Total	144		

Test Statistics

Mann-Whitney U	1137
Wilcoxon W	3765
Z	-5.813492298
Asymp. Sig. (2-tailed)	0.00

The analysis confirms theoretical postulates that financial liberalization brought about higher real interest rates. This particular financial sector development indicator seems to have yielded the desired result in Kenya and supports the assumption that the initial situation was characterized by financial repression, where interest rates were set below the market clearing levels pre liberalization.

The relationship between long-term savings and financial liberalization assumes that real interest rates are positive and that savings are responsive to interest rates i.e. real interest rate (post liberalization) will be positive and rising so that it will mobilize long-term savings and thus will be positively correlated with economic growth.

Table C5 : Gross Domestic Savings (GDS) to GDP

Pre-liberalisation		Post-liberalisation	
Year	GDS/GDP (%)	Year	GDS/GDP (%)
1987	22.77	1994	21.45
1988	23.52	1995	16.05
1989	23.05	1996	18.05
1990	18.00	1997	12.16
1991	18.14	1998	11.37
1992	16.04	1999	12.64
Mean	20.25		15.29

Evidence from the Economic Survey (Central Bureau of Statistics) shows that savings rates fell even though real interest rates rose. The percentage of Gross Domestic Savings to Gross Domestic Product (at factor cost) fell from 20.25% pre liberalization to 15.29% post liberalization (Table C5).

Therefore it is evident that financial sector liberalization did not increase savings and that Kenya's experience with interest rate deregulation provides only mild support for the benefits of financial liberalization theory.

Savings in Kenya seem to be determined by other factors, like investment, money demand and economic. On the other hand, it can be argued (Azam 1996) that there is a positive relationship between real interest rate and the national savings in Kenya but only after controlling for external shocks and financial repression. However, the supporting empirical evidence to confirm this consequential aspect is mixed. This is attributed theoretically to the dominating effect between income and substitution effects. In some sub-Saharan countries reviewed in this paper financial sector liberalization has been followed by a sharp decline in private savings. Various explanations have been advanced for this outcome. Two of the most important ones relate to the fact that the impact of interest rate changes on savings depends on a country's level of development; for poor countries savings are less sensitive to interest rate changes.

5 EMERGING ISSUES

In Kenya liberalization appears to have prompted a rise in the spread between banks' lending and deposit rates; rising real interest rates but falling savings rates, rather than a rise as predicted by the liberalization theory; and financial depth has remained at relatively low levels. This could be the result of budget constraints, the financial crisis experienced during liberalization, continued government intervention in the money markets or other problems in the banking sector. In such situations, indicators of financial development show limited success and three reasons may explain this outcome:

- Continued macroeconomic instabilities during financial liberalization.
- Excessive public sector borrowing that led to excessive credit and money supply growth.
- The banking sector did not become competitive.

It can be concluded that with the interplay of these factors, financial liberalization in Kenya failed to develop the financial sector and thus the indicators of financial development are erratic and do not provide a guide to the real economic activity.

From the conventional literature covered and evidence brought to bear, it is clear that the desired results have not all together accrued to the financial sector. In view of the mixed results, focus should be shifted to address the reasons why this may be the case.

The emerging literature emphasizes the pre-conditions for success and the sequencing and timing of reforms.

5.1 Financial Liberalization Sequencing and Pre-conditions

The sequencing of financial reform is important for its success. In most developing countries, interest rate liberalization may have come too soon, before other conditions were met.

In Kenya interest rate liberalization took place while controls in foreign exchange transactions, imports and the capital account were still in place. Montiel (1995) suggests a four-step liberalization sequence:

- Restore macroeconomic balance, together with restructuring or liquidating ailing financial institutions.
- Introduce indirect monetary instruments with freely determined interest rates, together with establishing supervisory capacity of the central bank on the financial system.
- Encourage competition in the banking sector, by encouraging more domestic and foreign banks and reducing government shareholding in the financial sector.
- Liberalize interest rates and remove all forms of administrative controls on the financial sector (i.e. liberalizing the foreign exchange market).

The failure of financial liberalization theory as advocated by McKinnon and Shaw has led to renewed interest in the pre-conditions necessary for its success. Montiel (1995) stresses the important role played by macroeconomic stability and the presence of adequate supervisory and monitoring capacity of the central banks. He

further delineates on the appropriate role of the government in financial liberalization and argues that the government should maintain the following conditions:

- An appropriate legal framework, well established property rights and an efficient judicial system.
- A financial safety-net to avert liquidity crises
- An adequate regulatory and monitoring framework to prevent collusion and excessive risk-taking due to moral hazard problems.
- A potentially successful borrowing class.
- Fiscal adjustment.

These pre-conditions relate to both institutional and macroeconomic reforms.

6 SUMMARY AND CONCLUSION

The paper surveyed the literature on financial liberalization and provided evidence to show whether benefits have materialized for Kenya.

The results of financial liberalization have been dismal; despite increased depth in the financial sector, the spread between deposit and lending rates has widened whilst the real interest rates increased but savings decreased.

Thus the financial sector still has symptoms of the old repressed regime and interest rates have not become market determined in the country. In fact there is currently an attempt to revert back to controlled interest rates through an amendment of the Central Bank of Kenya Act by Parliament (Donde Act).

Financial sector reforms and their impact on financial development, savings, investment and growth are highlighted. The key relations of financial liberalization are rooted in theory and have been postulated as such. These postulates rely on the transmission mechanism and assume that interest rates will become market determined so that the above benefits accrue.

The dismal results are dependent on the interplay of parallel reform processes, shocks hitting the economies and other structural difficulties like fiscal adjustment.

Various other reasons can be identified:

First, the financial structure in Kenya is dominated by a banking sector that is almost oligopolistic in nature, insurance companies and the stock exchange. There is still a government presence in the financial sector through ownership in some financial institutions and a heavy presence in the money market (by way of Treasury Bills and Bonds auctions).

Second, the indicators that can be used to assess the impact of financial sector reforms give rise to differing conclusions. They provide mild support to the success of financial liberalization and the benefits that are supposed to accrue but have not materialized. Most researchers have concluded that financial reforms have failed in developing countries. The results do not necessarily imply failure but rather that these indicators are also affected by the economy-wide structural adjustment programmes being instituted by these countries in the process of financial sector reforms.

Finally, financial liberalization must be aided by stable a macroeconomic environment. Kenya appears to have internal macroeconomic constraints that relate to fiscal constraints, lack of fiscal adjustment and fiscal pressure on monetary authorities. The situation is made worse by debt overhang and external shocks, like the terms of trade, that hamper economic stability and fiscal adjustment. These structural characteristics limit the performance of the target variable in financial liberalization, that is, the interest rate adjustment and the transmission mechanism.

For financial sector liberalization to bring about benefits, some conditions need to be met. These include: stable macroeconomic conditions, banks with generally positive net worth, an effective regulatory and supervisory system, some basic level of sophistication, in the banks, contestable financial markets and low fiscal deficits. In addition, there is still the sequencing problem. The critical problem is that most of the liberalization took place without first satisfying the conditions for reform.

7 FURTHER RESEARCH IN THE AREA

This paper suggests that to get the benefits outlined in the financial liberalization theory the pre-conditions must be right, timing of the reforms must be correct, sequencing of the reforms must be appropriate and the conduct of other macroeconomic policies must be consistent. However, in most developing countries reforms were undertaken without these issues being strictly adhered to. For this reason, developing countries should perhaps focus on secondary reforms that will bring the benefits of financial reforms since the primary reforms have not necessarily worked.

Further research needs to be done to uncover the validity of the conventional targets for financial sector liberalization in light of Kenya's experiences. Most researchers seem to find little evidence to support the benefits that should accrue after financial reforms. There should be research in this field to establish other targets, like measures of banking sector competition, levels of financial sophistication and the frequency of crises in the financial sector before and after liberalization in Kenya. The area of financial crises has been covered by a number of researchers (e.g. Kathanje, M. N., U.O.N., 2000) but the other two areas (banking sector competition and level of financial sophistication) need some attention. The two areas if adequately addressed should ideally provide some more direct and reliable measure of the effects of financial liberalization.

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