

**AN INVESTIGATION OF MORTGAGE
FINANCING STRATEGIES IN RESIDENTIAL
PROPERTY INVESTMENTS IN KENYA //**

A DISSERTATION SUBMITTED IN PARTIAL FULFILMENT FOR THE
AWARD OF THE DEGREE OF MASTER OF ARTS IN VALUATION AND
PROPERTY MANAGEMENT

BY

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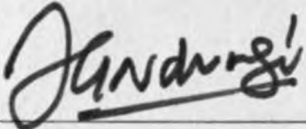
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DECLARATION

I NDUNG'U KABERERE J.G., hereby declare that this dissertation is my original work -being partial fulfilment for the award of the degree of Master of Arts in Valuation and Property Management- and to my knowledge, it has not been presented for the award of a degree in any other university.

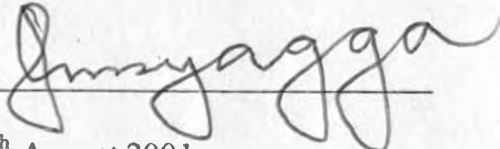
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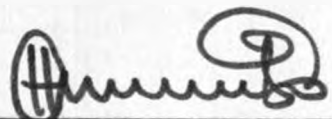


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Dated:

29th August 2001.

DEDICATION

This research project is dedicated to the following people:-

To all people of goodwill who made it possible for me to pursue this study

And

To Kanuthu, Muthoni and Ndung'u - my immediate family- who bore the blunt of my long absences at home.

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ABBREVIATIONS

ABS	Asset Backed Security
APR	Annual Percentage Rate
ARM	Adjustable Rate Mortgage
CBK	Central Bank of Kenya
CDC	Commonwealth Development Corporation
DDS	Domestic Debt Strategy
DFI's	Development Finance Institutions
DPFB	Deposit Protection Fund Board
EABS	East Africa Building Society
EADB	East African Development Bank
FHA	Farmers Housing Administration
FMHA	Farmers Home Administration
FNMA	Federal National Mortgage Association
FRM	Fixed Rate Mortgage
GSE	Government Sponsored Enterprises
HDA	House Deposit Account
HFCK	Housing Finance Company of Kenya Ltd.
HP	Hire Purchase
HDA	House Deposit Account
IEA	Institute of Economic Affairs
ILO	International Labour Organisation
IRAC	Interest Rates Advisory Centre
IPAR	Institute of Policy Analysis and Research
KBS	Kenya Building Society Ltd.
KCB	Kenya Commercial Bank
KCFC	Kenya Commercial Finance Company
KIPRA	Kenya Institute for Public Policy and Research
KLIBOR	Kuala Lumpur Interbank Offer Rate
LTV	Loan-to-Value Ratio
MBS	Mortgage Percentage Security
MFC	Mortgage Finance Companies

MIP	Mortgage Insurance Premium
NBFI	Non Bank Financial Institutions
NBK	National Bank of Kenya Ltd.
NHC	National Housing Corporation
NPA's	Non Performing Assets
NSE	Nairobi Stock Exchange
NSSF	National Social Security Fund
PMI	Private Mortgage Insurance
S&L's	Savings and Loan(s)
SACCO	Savings and Credit Co-operation Societies
SAHL	South Africa Home Loans
SMM	Secondary Mortgage Markets
TB	Treasury Bill
USA	United States of America
UK	United Kingdom
VA	Veterans Administration
VRM	Variable Rate Mortgage

ABSTRACT

Residential Mortgage Financing in Kenya has been pegged to the performance of the economy. The key determinants or index of the performance by the mortgage financing companies (MFC) -like Housing Finance Company of Kenya Ltd (HFCK) and Savings and Loan Kenya Ltd (S&L)- have been the prevailing interest rates in the markets. The Kenyan economy has been very unstable since the early 1990's and interest rates have been very volatile.

Interest rates on mortgages have been as high as 32%. This has resulted to interest payable on loans to amount to the initial principal sum advanced within a few years. For long term borrowing, as is the case of residential mortgages, this is not sustainable nor does it encourage borrowing. Property returns have been on the decline for the last 4 years, which compounds the situation.

Lenders have not addressed the relationship between them and the borrowers with a view to tackling the constraints that confront the two parties. Instead they have only addressed their problems of profit maximisation. For the relationship of the lenders and borrowers to be sustainable and to grow, the financing system has to be somewhat equitable to both lenders and borrowers.

The state has played a very minimal role in provision and stabilising of housing financing notwithstanding the fact that housing is a basic human right. Following the liberalisation of the economy and banking sector in 1991, interest rates were only technically deregulated, as the relevant Banking Law was not amended. This however resulted to the lenders charging whatever interest they deemed adequate to meet their profit maximisation goals.

There has been a decline in demand for mortgage financing since 1998. Thus the developments, which were put in the market by developers such as National Social Security Fund (NSSF) could not be bought as real estate investments rely heavily on leverage due to the large cash outlay required. The developers in order to recoup their

investments offered end finance with suitable terms to purchasers and the demand for their houses soon after outstripped supply. This showed there was still demand for mortgage financing.

The study was conducted by looking at the financing strategies of the main existing mortgage finance companies (HFCK and S&L) and new entrants (NSSF and National Bank of Kenya Ltd) in provision of end finance. It also looked at the financial sector, performance of the residential property market in terms of returns and appreciation in Nairobi for the period of study 1991 to 2001.

The study looks at the solutions to similar problems experienced elsewhere in the developed countries. The countries looked at have stable and sustainable mortgage financing systems. The study further examined the role of the state in setting up regulatory and institutional framework to support such a system.

The requirements of designing a sustainable financing system were looked at. It was established that there are four main criteria, which has to be met or incorporated in such a sustainable system. The study finds out that currently none of the four institutions (HFCK, S&L, NSSF and NBK) financing strategies meets all these requirements. A sustainable mortgage financing model is designed along these requirements and it is recommended for the Kenyan market.

Recommendations for reversing the unsustainable trends in residential property investments financing in Kenya have been given. Introduction of Secondary Mortgage Markets (SMM) is recommended as a long run solution.

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CHAPTER 1

INTRODUCTION AND PROBLEM STATEMENT

1.1 INTRODUCTION

In the developed countries housing for the low and middle income class is largely provided for by the state and local authorities. The severity of housing shortage, which is a characteristic of Kenya and other developing countries, is incomparable to that of the developed countries. In Kenya according to National Housing Corporation (NHC), the projected need for residential units in all urban areas in the year 2000 was 112,100. However the estimated annual house production in urban areas is between 20,000 to 30,000. NHC since its inception in 1966 to year 2001 has developed 42,511, which is an average of 1,200 per annum. NHC produced 183 units only in the year 2000. The shortfall is enormous and the role of the private sector in provision of the houses is significant as it is more than that of the state.

The failure of the state and related bodies to provide adequate housing has led to the heavy involvement and reliance on the private sector to cater for this need. The private sector's role has been both in developing residential units, servicing land for development and also providing end finance or leverage. However, hardly do the developers provide end finance. This is left to Mortgage Finance Companies (MFC). Recently two large institutions involved in development of residential houses were forced to finance their developments following a very low demand of their houses in Nairobi.

Before 1992 when Kenya embraced open market policies, most sectors of the economy were controlled. Prices of goods were controlled thereby controlling by extension the price of the finished products including housing. Interest rates were equally controlled and treasury bills rates were determined or fixed by the Central Bank.

After the interest rates decontrol the forces of demand and supply were left to set the equilibrium rates. Interest rates rose from 18% in 1991 to 28% by 1995 while arrears on mortgage interest could attract penalty interest as high as 36% p.a. The lenders were few and they appeared to have formed cartels to benefit them. The whole commercial banking sector was able to push up both the treasury bill rates and lending rates while keeping the saving rates or deposit rates low. This created a very wide interest rate spread between deposits at 6.78% and lending rates at 27.82% which amounted to a real interest difference of 21.05% in 1994 (Ndungu and Ngugi, 2000).

Long term borrowers like those servicing housing loans found themselves caught up with almost double monthly repayment instalments creating negative amortisation. They could not move away from the high lending rates or debt service yet return on their investments remained low. Their economic status had not changed for the better to enable them service their loans. This led to a lot of defaults and auctioning of the borrowers properties thereby impoverishing them.

The government, having adopted *laissez faire* (hands off) policies, could not intervene and attempts to keep the TB rates low did not seem to have any effect on the lending rates. As a solution to the borrowers problems, Parliament amended the Central Bank Act (Cap 491) to regulate commercial banks interest rates. The new amendments to the Act (commonly referred to as the Donde Act) set permissible interest rates to be charged by banking institutions to 4% above the 90 days Treasury Bill rates and deposit rates at 3% below the TB rates thereby allowing for a spread of 7%. The amended act was gazetted as a law on 7th August 2001.

Persistent high interest rates, slow growth of the economy and a slump in property values reduced demand for purchase of houses. Developers who had residential units not yet sold were unable to dispose them and free their capital. They realised that the existing mortgage financing strategies were a constraint to disposal of their products as they created a mortgage "famine". Big development owners like National Bank of Kenya Ltd (NBK) which had houses in Saika Estate and National Social Security Fund (NSSF) which had a total of 4,774 units most of them incomplete at Nyayo

Embakasi Estate and other properties in Nairobi decided to provide end finance. They adopted different financing strategies from the traditional mortgage lenders like Housing Finance Company of Kenya Ltd (HFCK), Savings and Loan (K) Ltd (S&L) and East African Building Society (EABS). These three institutions have been the market leaders and their strategies are similar.

As a departure from these lenders, the new entrants in end finance offered Fixed Rate Mortgages (FRM) at fairly low rates than the Adjustable Rate Mortgage (ARM) offered by their traditional competitors. The favourable offers received overwhelming support from buyers. This led HFCK Ltd to offer a new type of mortgage - which is a hybrid of the FRM and ARM - to buyers of houses in Komarock Phase. IV Estate which was developed by its subsidiary Kenya Building Society Ltd (KBS).

Besides investment purposes however, there are various other factors that result into Kenyans strong desire to own property especially a home in both urban and rural areas. Financial institutions play a significant role in urban home ownership, particularly, in residential estates sold by developers on their completion. Most investors seek leverage due to the large capital outlay required since the developers wish to dispose off the houses and get paid by a single cheque in order to develop more houses.

In developed countries like the United States of America (USA) there is a wide array of financing forms that are frequently used (Winger & Frasca, 1995). In Kenya, there are very few forms of mortgages and those open to the general investor are even fewer. The main mortgage companies, building societies and a few insurance companies offer adjustable rate mortgage. Co-operative societies and some employers offer their members fixed rate mortgages but this comprises a small percentage of borrowers. FRM is also offered for some residential properties developed by quasi government bodies like National Housing Corporation (NHC) and local authorities, which are charged with increasing the housing stock.

The above is the current mortgage financing scenario in Kenya whose limitations are fairly evident. The high interest rates and the entrance of new end financiers with new financing strategies calls for a study to understand their implications on residential property investments and to answer the question which way forward?

1.2 PROBLEM STATEMENT

Generally real estate investors or buyers in urban areas do so with a hope of making a profit or a gain in their investment in the form of cash flows in terms of rent or capital appreciation. Traditional mortgage financing structures as represented by the financing institutions in Kenya do not offer favourable financial leverage to the borrowers. This is because they are heavily tilted towards benefiting the lenders alone at the expense of the borrowers. The lending strategies are therefore not equitable to the lender and borrower. This has recently led to the provision of end finance by developers who have offered lower lending rates, as prevailing high interest rates are some of the causes of the unfavourable leverage.

According to HFCK Ltd, the rate of its customers mortgage delinquency or inability to repay the loans by April 2001 was 58% (HFCK Ltd, 2000). This was revealed to be the highest ever in its history. The company's subsidiary KBS has been unable to sell its residential houses in Komarock phase IV Estate which has resulted in HFCK Ltd lowering its mortgage interest rates to an all time low of 9.9% to purchasers of these units only. This is an indication of two problems in the residential mortgage sector, namely a high mortgage delinquency and low demand for mortgages.

There has been a marked increase in the monthly loan repayments over the years due to an increase in lending rates. The lenders have not been responsive enough to come up with lending strategies to accommodate changes in the financial market in order to cushion the effects on the borrowers.

Under Adjustable Rate Mortgages (ARMs) -which are the most common in Kenya- the loans do not have a fixed interest rate, instead the rate varies in response to the changes in interest rates in the market. This type of loan removes the risk of interest

rate from the lender and transfers it to the borrower. “This is a decided disadvantage to the borrower” (Winger & Frasca, 1995 pp.544). Where the loan interest is fixed over the term of the loan, this type of mortgage is referred to as a Fixed Rate Mortgage (FRM). Where interest rates in the market are volatile and the lender’s source of funds reflects this changes, then a rise in interest rates in the market increases the costs of these funds to the lender. The lender might pay a higher interest on the funds than the amount borrowers pay on the advanced loans on an FRM basis thereby making the lender incur losses. The two extreme situations under FRMs and ARMs are not equitable to both the lender and the borrower and the situation is unsustainable. In Kenya financial leverage in residential investments became negative on decontrol of interest rates as they shot up drastically.

There has emerged new end financiers in residential investments who happen to be developers offering FRMs as an enticement to the borrowers or investors. This emergence of new financial instruments has had seemingly positive effects on the mortgage market and one of the leading mortgage financial institutions HFCK Ltd has also offered a limited FRM at 9.9% for purchasers of its subsidiary’s KBS Ltd houses in Komarock Phase IV Estate. This is a departure from its current ARMs, strategy, which currently attracts an interest rate of 19.9% for loans being serviced normally while loans with mortgage arrears attract a 24% interest. The introduction of the hybrid mortgage is to attract purchasers’ in order to dispose the remaining residential units as the fixed interest is only for two years after which it converts to ARM status and reverts to market rates. What are the actual implications of such a strategy to the borrower?

The purpose of this study was to establish the differences and implications of the existing and emerging mortgage financing strategies in residential property investments in Kenya comparing them with others in developed countries. The study looked at solutions to similar problems encountered elsewhere. It further illustrates the unfavourable leverage arising from the traditional lending strategies and recommends an equitable and sustainable mortgage financing strategy, which is

favourable to both lenders and borrowers. The study also attempts to answer the research questions raised below.

1.3 RESEARCH QUESTIONS

Based on the above problem statement several questions arise:-

1. Is there any justification for the high lending rates in Kenya, which are some of the highest in the world?
2. What are the likely impacts of the high interest rates on the market of real estate investments?
3. What are the actual total residential properties returns in Nairobi, Kenya?
4. How can the interest rates be maintained at affordable levels conducive to investments and to avoid disastrous effects as has been experienced in the Kenyan situation?
5. Is there room for Secondary Mortgage Markets (SMM) in Kenya? How are SMMs created and how do they operate?

1.4 HYPOTHESIS

The emergence of new financing strategies in the residential property market has activated demand for mortgage finance.

1.5 OBJECTIVES OF THE STUDY

1. To identify the existing and emerging trends in lending strategies in the residential property mortgage market.
2. To determine the impact of the existing and emerging financing strategies on access and affordability of mortgage finance.
3. To recommend equitable and sustainable mortgage financing strategies in the residential mortgage market in Kenya.

1.6 METHODOLOGY

This study was both analytical and exploratory and was largely based on both primary and secondary data. The study relied on interactive review for both qualitative and quantitative analysis as a source of primary information and data. Interviews were conducted among the institutions staff involved in lending or marketing the four companies' policies and strategies in provision of end finance. The companies are HFCK Ltd, S&L, NBK Ltd. and NSSF. The period of study was 1991 to 2001 for the first two and for the duration the later two have been engaged in end financing. The following approach was adopted in this study:-

Brochures and letters of offer were analysed and newspaper advertisements from the lending institutions as a source of secondary information. This was the main source of the information on lending strategies as information on requirements to qualify such as down payments, fees charged for applicant's appraisal and valuation, interest rates on loans, initial compulsory savings account deposits required were obtained. Crucial information affecting the client or differentiating the various strategies but was not reduced into writing was filled in by way of interviews with the lending managers.

Specific questions were asked using questionnaires and oral interviews as the instruments of information gathering. These were administered to officers involved in or conversant with lending in the new strategies and also in general in order to compare with the traditional approach.

Data on demand and sales of the residential units in the estates was obtained from the developers or the lending institutions involved. These estates were Saika, Komarock Phase IV estates and all the NSSF estates put up for sale. Information on the number of mortgage applicants, successful applications, mortgage delinquency over the years was obtained from the lenders or as secondary information where available. This was achieved by use of a questionnaires tailored to capture information over the period of study.

The causes of failure to qualify for the financing were established by analysing the conditions. The hidden costs of the mortgage were determined by assessing the costs incurred in obtaining the finance.

Property rents or returns over the period of the study was obtained from leading property management firms by use of questionnaires. For a vertical analysis of property sales and rents over the years, Prudential Estate was selected as its houses were all similar in design and size, which results to a uniformity of rent among the houses. The estate's houses sales data was obtained from Nairobi Lands Registry and estate agents. Horizontal rental return analysis of residential properties in Nairobi was achieved by obtaining data on sales and rents from leading estate agents. The rental and total property returns over the years were compared with the mortgage interest rates over the same period in order to determine the variation and effects on leverage.

Secondary data on average interest rates over the period of study was obtained from previous studies on the same carried out by research bodies like Institute of Policy Analysis and Research (IPAR), The Kenya Institute for Public Policy and Research (KIPPRA) and Institute of Economic Affairs (IEA). Specific lending rates for the institutions over the years covering the study were obtained from individual institutions or from their website. The exchange rates and Treasury Bills rates was obtained from Central Bank of Kenya.

The units of measurements used were nominal interest rates, mortgage constants, rental returns and property appreciation, financial leverage and rates of return. The data was analysed by use of ratios, percentages, tables, charts, and graphs. The same was used for presentation and comparison. Qualitative comparison of the four institutions' strategies was also carried out. Computer aided techniques of analysing using packages such as MS excel were used.

1.7 RESEARCH ASSUMPTIONS

The following assumptions were made in the study:-

1. That real estate investments -in urban areas where leverage is utilised- are made with an intention of making a profit, which is based on rental return and capital appreciation.
2. That real estate finance is supposed to be equitable to both lender and borrower for the business relationship to be sustainable.
3. That in residential investment, risks related to interest rates and leverage are capable of being quantified or estimated.

1.8 SCOPE AND DELIMITATIONS

The study was restricted to mortgage financing strategies of two leading mortgage institutions H.F.C.K. Ltd. and Savings and Loan Kenya Ltd. which accounted for over 50% of total lending. The other justification of concentrating on these two was due to the fact that most of the traditional strategies were static or constant among these institutions. Of the new entrants in end finance, the financing strategies of NBK Ltd and NSSF were analysed together with the new strategy adopted by HFCK in financing Komarock Phase IV Estate.

Due to the entrance of developers in providing end finance in residential investments, the residential estates in Nairobi which were being financed through emerging strategies were taken as an illustration. These estates were Komarock Phase IV, developed by Kenya Building Society (KBS) a subsidiary of HFCK Ltd, Saika Estate whose development was funded through NBK Ltd. The rest were Nyayo Embakasi Estate, Kiitisuru, Nyayo Highrise, Hazina, Mountain View and Tassia Estate developed by NSSF. The houses were for both middle and high-income earners and had a price range of between Kshs. 1,200,000/- to Kshs. 10,000,000/-.

The study was limited to the period 1991 to 2001 when major changes in the economy and property markets were experienced. Only some aspects of the study could be analysed up to the year 2001 as on completion of the study the year was not yet over.

The study did not delve a lot into the factors that have led to both high inflation and lending interest rates and big interest rate spread between deposits and lending rates. This has been addressed by KIPPRRA, IPAR IEA among others. It mainly focused, on the terms of mortgage strategies and not on their designers or institutions structures. The study did not also look at other factors that lead to investors investing in residential properties other than investment purposes.

The study looked at the local lending strategies and compared them with lending strategies in developed economies particularly the United States of America, Malaysia and South Africa.

The mortgage payers were not interviewed due to the scope of the study, its objectives and limitations in terms of time. It was possible to achieve the study objectives without necessarily involving the borrowers as the information and data on mortgage financing strategies could be obtained from the lenders and effects on the investments could be quantified from the financing strategies and data on property rentals and sales.

1.9 SIGNIFICANCE OF STUDY

The main aim of the study was to fill the existing gap in knowledge on the actual effects of the existing and emerging mortgage financing strategies in the middle income residential property market. The study would act as a source of information to the Valuers or Property Consultants when advising their clients on residential investments using leverage.

To enlighten and sensitise the professionals who advise on investments in real estate the importance of boldly advising their clients when there is no gain in financing an investment through certain mortgage financing strategies. The layman could also use

the findings as a guide to understand the significance of mortgage finance on property returns in relation to income and property appreciation.

The findings would expose the inequity between the lender and borrower under the prevailing financing strategies. This would act as a challenge to financial institutions to be realistic in their business undertakings and not to try to hoodwink the customers/investors that the traditional mortgage arrangements had significant financial gains to the borrower. The presentation of the findings, comparison of other equitable financing strategies adopted elsewhere and recommendation of an equitable financing strategy would achieve this.

Finally the study could highlight solutions to high interest rates in mortgage finance by comparing them with other countries with similar experiences.

1.10 ORGANISATION OF THE STUDY

The study is organised in five chapters. Chapter one introduces the study. It presents the introduction and problem statement, study hypothesis, research objectives, research assumptions, significance/justification of the study, scope of the study, research methodology and definition of terms.

Chapter two reviews related literature focusing on residential mortgage financing in developed countries and in Kenya. The chapter also includes an overview of the Kenyan legislation governing mortgage financing and housing policy in order to determine whether the intended goals are achievable with the prevailing mortgage financing structures.

Residential financing strategies adopted in other countries like USA which a market leader in mortgage financing are reviewed and discussed at length. The purpose of this is to examine their strengths/weakness or their merits and demerits if any and identify whether they are suitable given the Kenyan situation. This ends up with a look at the requirements or criteria for designing an equitable and sustainable mortgage financing strategy. The criterion is used for designing an ideal mortgage

financing strategy for Kenya against which the local strategies are judged. This mortgage financing system is recommended for adoption in Kenya at the end of the study.

Chapter three covers briefly, the background of both the two main corporate mortgage-financing institutions i.e. HFCK Ltd and Savings and Loan (K) Ltd and the two new entrants into end financing namely NBK Ltd. and NSSF Ltd. The latter two are treated as an illustration. The individual company's mortgage financing strategy is outlined. This chapter also offers an overview of the residential estates financed under the new and old strategies i.e. Saika, Komarock Phase IV Estate and all NSSF Estates. The chapter also briefly looks at factors influencing residential investments in Kenya and sources of residential financing.

Chapter four presents a review of the individual mortgage financing strategies of the financial institutions based on the existing literature and interview findings. The chapter concludes with an analysis of the findings and a comparison of the various local strategies.

Chapter five is a summary of findings and presents the conclusions and recommendations. Among the recommendations is an ideal Kenyan residential investment financing model developed from the literature review and findings in chapter four of the local financing strategies.

CHAPTER 2

LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK

2.1 OVERVIEW OF MORTGAGE FINANCE

The aim of this chapter is to look at the various forms of financing strategies offered elsewhere explaining who benefits or loses from them. It gives an insight of what the mortgage financing institutions have as options and prepares the borrowers for any pitfalls arising from new strategies as the lenders are bound to camouflage them. Alternative suitable mortgage finance which takes into account the lender and borrowers constraints which makes it equitable is finally recommended for the Kenyan market.

Distributional issues such as income arise in housing than in other kinds of real estate. Housing is the bulk of real estate in every country. Real estate is also the second largest cost centre for firms, exceeded only by labour. A poorly functioning real estate market is a cost to the rest of the economy. Much work has been done on the links between real estate and banking crises in a number of countries by macroeconomists, bank supervisors, real estate finance specialists and urban planners who often remain in studied ignorance of each others work (www.worldbank.org/devforum). One of the aims of this study is to shed light on the links between macroeconomics, financing and real estate investments.

Over half of the consumer debt is usually tied up in house mortgages and a number of other financial products bought by consumers at the same time as the mortgage is taken out. Consequently, the mortgage market has come to be one of the most important retail areas for general financial institutions. Non-banking financial services such as insurance and pensions are also being increasingly drawn into the net. From being an independent sphere mortgage finance is now firmly part of retail banking so the two have to be considered together. It is envisaged that in future all financial services will be obtained under one roof: (Ball, 1990).

In Kenya, following the review of the Banking Act Cap 488 in July 1991 which brought about deregulation of interest rates, Non Bank Financial Institutions (NBFIs) started to convert themselves to banks with the majority undergoing conversion by 1996 (Njuguna and Ngugi, 2000). Presently banks and pension funds in Kenya, which previously were not offering residential mortgages have entered into this lending arena. Examples of the new entrants are National Bank of Kenya Ltd and National Social Security Fund.

In other countries new institutions have muscled into mortgage markets sometimes threatening the very existence of traditional lenders. The world of mortgage market has changed drastically in the last two decades. House mortgages have become one of the keystones of the much-talked about financial supermarkets of the future. The flow of funds into housing finance has become internationalised with mortgage – backed securities and bonds increasingly traded on and between the major financial centres and large scale loans raised within the Euro markets (Ball, 1990).

Financial systems of individual countries are still very different despite widespread deregulation. Mortgage finance and its institutional frameworks are no exception. Because housing markets also vary considerably between countries, there is therefore, little likelihood of standardised systems of mortgage finance arising internationally in the near future (Ball, 1990).

Historical analysis of housing markets and mortgage finance show that a static and sleepy world cannot exist under circumstances where there are both external and internal problems. Institutions continuously adjust their strategies and roles to new circumstances. The threat from new strategies by entrants in the Kenyan residential mortgage financing market has led to some traditional lenders adopting new strategies to curb the competition. The traditional lenders have been rather sleepy and their failure to adjust to changing circumstances may have created the prevailing problems in mortgage financing namely:- high interest rates leading to high mortgage delinquency and low demand for mortgages. There is a strong tendency for

developing countries to borrow a leaf from the developed world in solving their problems. It would therefore not be unusual for the Kenyan mortgage financiers to borrow solutions wholesale or with minor adjustments from these countries. Most of these institutions, which were headed by local Kenyans, have had a change of leadership replaced by foreign chief executives as has been witnessed by HFCK Ltd and KCB Ltd in bid to inject new ideas. The current problems in financing have been experienced elsewhere particularly in the USA.

2.2 HISTORICAL DEVELOPMENT OF MORTGAGE FINANCING

Urbanisation in the 18th and 19th century increased the demand for housing. The capital cost of adequate housing is generally too high to be financed directly out of current household income. Private landlords also resort to borrowing to fund their housing provision. Mortgages as they are known today became prevalent in the late 19th and early 20th century in countries like Britain.

Before the advent of the institutional mortgage, funds for house purchase were scarce, as borrowings were limited to informal lending. Modern mass home ownership needed as a condition for its existence some form of large-scale mortgage finance institution. A variety of means to obtain mortgage finance evolved in various countries. However, in the long run, one type of mortgage institution and its mortgage instruments became the linch-pin around which others operated. Two main forms of mortgage finance are identifiable. One relies on medium to long term, fixed interest investments from capital markets, commonly referred to as wholesale funding. The other one depends on short-term savings deposits from the personal sector commonly referred to as retail funding.

The state played a significant role in setting up of mortgage institutions associated with capital markets. Legislation was necessary to permit the floating of mortgage bonds and intervention was necessary in the formation of the mortgage institutions themselves e.g. the Federal National Mortgage Association (FNMA) formed in the USA. In the 1930s' in the USA, government initially did not want to interfere with the personal loan sector. However this changed later as it wanted to protect savers

from unscrupulous institutions or bankruptcy. It can be concluded that state intervention via regulation and initiation, therefore, is as old as mortgage finance itself (Ball 1990). It would appear that even with the coming of deregulation, the state's intervention cannot totally cease especially where creation of institutions and amending enacting of new legislation's are concerned. The state should take a proactive approach to avert chaos.

In some countries, especially Western Europe, there is a strong tradition of mortgage bonds as the source of mortgage finance. Mortgage banks issue tradable bonds on the basis of pools of mortgages. The terms of the mortgages and the bonds sold to finance them are supposed to be matched in regard to repayment periods and fixed rate of interest. This way the mortgage bank is not exposed to the risks of interest fluctuations in its obligations to lenders and borrowers. Mortgage bonds are important tradable instruments in the capital markets of those countries where they have had widespread use for long. They are most important in places where the corporate sector issues few equities or bonds like in Denmark and West Germany(Ball 1990).

In Britain, its ex-dominions and the USA the funding systems for housing arose differently. Large-scale housing gets funds from capital markets while rental institutions issues equities or debt in their names to be traded on the general equities and bond markets. In Britain council housing is funded indirectly via general local authority borrowing with the bonds having the advantage of state guarantee. For small-scale rental housing and owner occupation, mortgages came to be issued by institutions relying on deposits in household's savings accounts. This is by and large the case today in Kenya. This source of funding in Britain started in the 18th century with the formation of building societies, which were exported to other countries. Similar building institutions and Savings and Loans (S&Ls) together with credit unions and savings banks commonly referred to as Thrifts were founded in the USA.

Other than the UK, the Western European countries do not have Building Societies, as such. They instead have Savings Banks, which are active in mortgage lending. West

Germany and Austria have contractual savings institutions whose main function is to lend for house purchase and have traditionally invested in long term and usually fixed interest assets i.e. deposits and lending. These banks were for the mass of population excluded from pension services and they would use the services of savings banks to cover long-term contingencies like income in old age.

There was no attempt to match the interest on savings deposits, which are short-term with the terms of mortgages issued which were long-term. Settings of interest rates vary from one country to another. In the USA there is a strong tradition of anti-usury and a strong tradition of financial institutions. Fixed interest rates emerged for borrowers but not for savers, which continued until the 1980's. Initially the mortgage repayment terms were short about 5 years but overtime increased to 30 years. In Britain, on the other hand, its more pliant consumers have had to bear all the potential interest rate risk as mortgage developed on with interest charges which could be varied whenever the lender wanted to revise them. The repayment periods here too lengthened (Ball, 1990). Kenya seems to have followed the British system possibly due to its colonial history.

The main distinction in mortgage finance arose from historical reasons associated with individual countries financial systems and the role of mortgage finance within it. Reliance on capital markets led to *wholesale funding* while financing via individual deposits in saving and other accounts are commonly called *retail funding*. Mortgage interest can either be fixed at a rate determined at the beginning of a loan, it can also be variable, or a hybrid of the two.

According to Ball (1990), neither the wholesale nor the retail systems emerged smoothly. In the USA, the 1930s experienced the most dramatic periods of mortgage default and a widespread collapse of thrifts and banks. Germans, in the 1920s and 1940s experienced mortgage market panic with hyperinflation wreaking havoc with the value of mortgage bonds. The history of mortgage finance in most countries is filled with the collapse of reckless mortgage finance institutions. Most regulatory legislation emerged in response to financial excesses like the far-reaching 1933

amendments of the Banking Act in the USA, which introduced *mortgage insurance* and *Secondary Mortgage Markets*. In Kenya the 1990s experienced the highest ever-persistent high interest rates and with the widespread use of variable interest rates, this led to high mortgage rates. This was followed by historic mortgage delinquency/defaults of up to 58% of the borrowings for some institutions like HFCK Ltd (HFCK Ltd, 2001). The few lenders in the market creating oligopolistic tendencies were the cause of this status as the real interest spread in Kenya has been among the highest in the world. There have been attempts to amend banking legislation specifically the Central Bank of Kenya Act (CBK) Cap 491 aiming at a return to interest regulation or control (Institute of Economic Affairs 2000). The CBK amendments were finally passed as law.

2.3 TYPES OF MORTGAGES

While there are various types of mortgages, they can generally be classified into two broad categories i.e. *Fixed Rate mortgage (FRM)* and *Variable Rate Mortgage (VRM)* which gave rise to the commonly known *Adjustable Rate Mortgage (ARM)*. All the other types of mortgages are largely a hybrid of these two types.

In the beginning there was the fixed rate mortgage (FRM) when interest rates used to be more stable. In the late 1970's interest rates went up sharply making fixed rate mortgages undesirable for the lenders. In the USA interest rates between 1950 and 1975 fluctuated within a maximum of 4 points. The rates were never lower than 6% and not higher than 10%. By the end of 1970's the interests burst to 12% then 15% then 18%.

This put the lenders at great risk, as they had also to pay new savers at a high interest rate. There were cases where new savers were paid 12% while on average the banks mortgage portfolio average was 9% interest rate. The mortgage rate had to match the savings rates. The threat and fear of solvency given this scenario persisted in the minds of the lenders even when interest rates fell. As a guarantee that the problem would never surface, the lenders shifted the burden of the interest fluctuation risk to the borrower by way of introduction of ARM.

In the USA, almost all ARM's have caps or limitations on the interests rate which puts a ceiling and a floor on the rate of fluctuation, at say plus or minus 5% of the starting interest rate. It should be noted, however that there is very little that is fair about ARM. It is mainly unfair to the borrower and a great gain to the lender (Irwin, 1992).

Most borrowers are ill equipped to cope with the fluctuations especially upward movements. Before regulation of ARM's most lenders preyed on the borrowers ignorance by offering "teaser" (enticing) rates to get borrowers into mortgage. This would be unrealistically low rates and then quickly raising the interest rate and payments, driving the borrower into default (Irwin, 1992). HFCK Ltd. has offered a teaser rate of 9.9% to purchasers of Komarock phase IV estate houses which rate is 10% points below the lowest ARM -offered by the same company. The low rate is expected to revert to market rates after 2 years. This greed has been associated with the collapse of many savings and loans institutions in the United States.

2.3.1 Fixed Rate Mortgage (FRM)

The FRM meant that the interest rate remained the same or fixed for the life of the loan. This had an advantage, as it was easy to understand the mortgage conditions. It led to the popularity and wide ownership of residential real estate in the USA (Ball, 1990). In the 1970s interest rates went up so highly making the fixed rate mortgage undesirable for lenders.

Operation of FRM

Under FRM the repayment for borrowed money should not exceed or fall short of the decapitalised sum. For the borrower to attain this he pays equal instalments composed of part principal and part interest to amortise or repay the sum advanced. Under this financing arrangement both lender and borrower are clear on the total sum payable. This is important, as the decision for lender and borrower to invest must be made on sound financial basis or considerations.

The payment on a mortgage is generally referred to as debt service. One way to compute the debt service is to multiply the mortgage constant by the amount borrowed. The mortgage constant is the factor that relates the interest rate and the amortisation period. Jaffe & Sirmans (1995) have developed the following equation that represents the factor:-

$$MC = \frac{i/m}{1 - \frac{1}{(1 + i/m)^{n*m}}}$$

Where:-
 MC = Mortgage constant
 i = rate of interest
 n = number of years
 m = frequency of compounding per year

NB. The mortgage constant remains constant throughout the term of the loan, as all variables in the equation do not vary over time.

2.3.2 Variable Rate Mortgage (VRM)

Variable rate mortgages were the original alternative to the traditional fully amortised, constant payment mortgage. The interest rate charged on a VRM is not fixed throughout the term of the loan but rather is tied to a market index such as prime interest rate or government bond. Thus the interest rate moves up and down in response to the index (Wurtzerbach et al, 1995).

There are several types of VRMs and below are some examples:-

- i) The type allows the interest rates to change periodically according to some index previously agreed on. The change in interest rate can be reflected by adjusting the payments so as to retain the original date of maturity of the mortgage.

For example assume the original mortgage was for 15 years at an interest rate of 20% with monthly repayments. If the interest rate changes to 22% after the first year, the remaining loan monthly repayments are calculated by

multiplying the outstanding sum by the monthly mortgage constant at 22% for 14 years. This might increase the monthly mortgage instalments than for the preceding year. If the interest rates decline in the third year to 18% the new terms of calculating the monthly instalments would be a mortgage constant at 18% for 13 years.

- ii) Other types of VRM allow the mortgage payments to remain constant but change the maturity of the mortgage to reflect the interest rate change. Ceilings on how much the rate can change can also be imposed.

According to Wurtzerbach et al (1995), the advantages of VRMs are :-

- i) It allows or encourages continued borrowing during high interest periods as VRM is tied to a market interest rate index.
- ii) It relieves VRM borrowers of prepayment penalty clauses, to charge them a lower origination fee, or to start them at lower original interest rates.
- iii) It protects lenders from interest rate risk and consequently allow them to exclude inflation risk premium when determining the original rate associated with a VRM. When rates rise in the market, the lender is protected from this risk, the cost to the borrower is (on average over time).

2.3.3 Adjustable Rate Mortgage (ARM)

The variable rate concept was the solution to the lenders major problem of the increasing costs of deposits lent out at fixed rates but it presented a problem for the borrowers in the form of payment shock. If interest rates, for example, moved from 8 to 12 percent, the monthly payment necessary to amortise the original loan over the same period would go up by 40%. Many investors do not wish to be exposed to such a risk. What evolved next was a series of adjustable-rate mortgages, which embodied the VRM concept with more viable caps (Wurtzerbach et al, 1995).

There are various factors that create the differences from one type of mortgage to another. This is achieved by taking and varying different variables of its key

characteristics to effect changes in its Mortgage Constant represented above under FRM.

Emphasis is laid on the ARM due to its popularity with lenders. Secondly, Appraisers can be called on to estimate value under a wide variety of financing methods. These alternative financing methods increase the complexity of the valuation process as opposed to the simplicity of the FRM.

The ARM enables the borrower to pay a constant sum throughout. The advantage is that if there was an increase in interest rate, which would lead to an increase in monthly instalments, and the borrower's income has not increased, the maintenance of the same repayment safeguards the borrower from delinquency. A decline in interest rate can lead to a shorter term (Sirmans & Newsome, 1983). "Most mortgage borrowers are ill-prepared to make higher mortgage payments when interest rates in general move up" (Irwin, 1992). In varying the interest rates arbitrarily as often happens it would appear the lenders are not interested in the affordability of mortgages to borrowers.

2.3.3.1 The Advantages of ARM

Notwithstanding the above disadvantages, the ARM has some advantages particularly if it has some checks. Among its advantages are its initial low interest rate and its availability. During volatile periods, short term lending can be availed through ARMs as interest rate can be changed if the fluctuations persist. During such periods the FRM's tend to be high and so for short-term borrowers ARM offer an advantage. ARMs have lower rates up front.

In Kenya, borrowers are lured by the low interest rate, which also enables many of them to qualify for mortgage at the teaser rates only for the repayment equation or mortgage constant to change when the interest rates are adjusted upwards. If the lender is incorrect in the assumption of qualification for mortgage at higher interest rates, then the borrower won't be able to make the payments and could loose the house.

The question that arises is, does HFCK qualify borrowers at teaser rates or at market rates? Caveat emptor – let the borrower beware. Will the HFCK teaser rate offer after 2 years be at par with the current or prevailing ARM or could it be higher? "Back in the 1960's in the United States of America, lenders were so abusive with interest-rate gimmicks, congress passed a law- The Truth in Lending Act to protect borrowers. Today if you buy something and finance it the lender is required to tell you the true Annual Percentage Rate (APR) of interest on the loan" (Winger and Ralph, 1995). This gives the borrower the 'true' cost of borrowing. In this way the APR seeks to provide a common measure of comparison for consumers who may wish to comparison-shop between more than one financing source (Jaffe and Sirmans, 1995).

2.3.3.2 *Checks and Controls of ARMs*

◆ **The Index**

ARM's are tied to well known economic measures called an index. The most common index is the Treasury bill rates of various lengths. If index falls the ARM's interest rates falls.

Lenders prefer their ARM's to be tied to indexes with higher volatility while borrowers prefer those less volatile. In the USA, agencies regulating ARM's do not specify the index a lender must use. It is up to the lender to choose one only on condition that the lender cannot manipulate or control it and it must reflect interest rates in general, and be widely publicised. The following are the common indexes in USA:-

i) *Cost of the funds* for the lender (cost of funds index), it represents the cost to members' -banks and savings and loans- of money if they have to borrow from the government. This is fairly stable.

ii) *Treasury Security Index*

- a) 6 months treasury bill - it is the most volatile.
- b) 1 year Treasury bill yields.
- c) 3 year Treasury bill yields.

iii) Prime Rate Index

This is the lowest rate the banks charge their best customers. It is publicised by Wall Street Journal.

In Kenya this is referred to as the base lending rate and it is usually several points higher than the 90 days TB rates and at times it can be 6% points higher. The base rate is usually similar percentage points below the normal lending rate or ARM rate.

It has to be noted that one can not change the index during the life of the mortgage. However, a lender though can switch to another index for new ARM's. The practice is the lower the index the higher the "margin" or rate cap and vice versa. This creates room for flexibility.

◆ Adjustment Period

This is how frequently the lender can adjust the mortgage rate up or down. The adjustment rate is non-negotiable and usually the lender specifies. Currently in Kenya the lenders have indicated that they look at the movement of the TB rates to adjust the ARM rate. They are quick to increase the ARMs rate when TB shows signs of increasing and very slow to lower the rates.

In USA, the adjustments period vary from monthly to every 5 years. Lenders prefer the shortest time possible while borrowers prefer the longest period to give them stability. This, however, depends on whether the interest rates are high or low for either of the two to gain.

◆ Hybrid ARM's

There are many hybrid mortgages. Some offer fixed rates for a time then adjustable rates and vice versa. An example is the HFCK hybrid mortgage offered to Komarock phase IV Estate house buyers.

◆ Interest Rate Caps.

The major problem with ARM's is the uncertainty of interest rate movement. This makes many borrowers shy off from ARM's. Interest rate caps create some certainty by minimising extreme interest rates. In their absence a borrower can start off with very low interest which can double up in a very short period to the extent of doubling up the monthly payments. If borrowers envisaged this, few would enter take a mortgage.

Under the cap both the lender and borrower take some risk. If the cap is pegged to an index that remains below the interest on savings by a margin greater than the cap, the lender bears the loss brought about by the difference. Thus where the cap is 5% and the index is 10%, if the interest on savings rate increases to 16% the lender bears the 1% loss as he can only charge a maximum interest of 15%. The lower the Cap, the more the certainty of the fluctuations. The size of the cap is therefore vital.

◆ Interest Rate Steps.

These are the limits on the interest rate adjustments in each period. Regardless of what the real interest has moved, the interest rate on the mortgage can only be adjusted at a certain rate per interval to attain the maximum cap. The rate can not therefore be adjusted overnight from the index to the maximum or minimum at a go.

The steps in the USA market vary from $\frac{1}{2}$ percent to $2\frac{1}{2}$ percent per adjustment period (Irwin 1992). The HFCK hybrid ARM does not indicate the interest rate steps.

The smaller the steps the greater the time lag to feel the full impact of the change either way whether increase or a decrease in interest rates. This creates stability. Lenders prefer wider steps not to loose on interest during spikes while borrowers prefer smaller steps. It should be noted that steps in the caps could be confusing to the borrower.

Caps can also be placed on monthly payments. Under this the payments should not rise beyond a certain percentage of previous payments.

◆ **Negative Amortisation**

This means that instead of the mortgage going down, it goes up. The borrower ends up owing more than was originally borrowed or having a longer borrowing period. The borrower also pays interest on interest. In Kenya the banks charge a penalty interest on the interest thereby compounding the problem to the borrower further.

Negative amortisation can arise from the presence of caps unlike in the FRM. If the rate of payment increases and is not followed by an increase in income, the extra interest payment, is added to the principal increasing amount to be paid.

In Kenya instead of the amount being added to the principle, the lender demands lumpsome payment all sums in arrears. Failure of the borrower to pay within a given time can lead to a recall of the loan and eventually foreclosure. "Federal lender regulations prohibit negative amortisation from increasing beyond 125 percent of the original mortgage balance" (Irwin 1992). In Kenya, unlike in the USA, there is no limit to the amount the initial loan can increase. The proposed amendments to the Central Bank Act had recommended that a loan should not more than double in the event of default.

Effects of Appreciation on Negative Amortisation.

Lenders justify the bad effects of negative amortisation by arguing that housing prices increments more than offset it. This argument does not hold when property prices are falling. Again the sharing of the property appreciation between the lender and borrower is eating into the borrowers return on equity.

Other mortgages in frequent use in the USA are presented in Table A.1 in the appendix.

2.4 ROLE OF THE SECONDARY MORTGAGE MARKETS (SMM)

The SMM arose in the USA from the 1930's legislation, which brought deposit insurance and interest rate ceilings. This market is well established in the United

States. In Malaysia the equivalent of the SMM is a simpler form known as the Cagamas, which are discussed briefly below.

Secondary markets are highly organised exchanges with a large number of buyers and sellers and their performance is well publicised. The mortgage markets behave similarly to the stock markets. Lenders originate the mortgage according to a standardised process described below in the primary mortgage market. Instead of holding these mortgages until the homebuyers have repaid the last cent over the period or term of the mortgage, the lenders package the loans together and sell the packages to other investors who wish to have a stream of income offered by these large mortgage pools. The purchasers buy the mortgages at a lower rate of interest than what the lenders had negotiated with the borrowers and the difference in the two rates is the pool's profits. The income comes from the repayments of the mortgage instalments by the borrowers. Thus instead of the lenders originating the mortgages to hold, they sell most of the mortgages to the secondary mortgage market and profit by being loan originators more than as long term lenders. They are also able to receive back cash by selling what would have been illiquid portions of their portfolios thereby gaining flexibility and freedom to be loan originators (Wurtzebach et al, 1995).

What are secondary mortgage markets and what are their roles? The role of SMM is to purchase mortgages from the primary market or from the originators. Mortgage markets are similar to the markets for financial assets. For example the primary market for common stocks consists of initial public stock offerings by companies to raise funds for investment. When these original shares of stock change hands, subsequent to their original sale or issuance, they do so in the secondary market. The creation of this market is discussed at length in Ball (1990).

2.4.1 Lessons from USA Experience

In the United States of America (USA) to stabilise mortgage interest rates and to increase the availability of affordability of home mortgages the government intervened in the credit markets by creating in 1938 Fannie Mae to offer secondary mortgages that did not have erratic changes in interest rates. In 1970 Freddie Mac was

chartered to compete with Fannie Mae in order to increase efficiency in the secondary mortgage market by creating competition for government funding. Today secondary mortgage markets are established and the two bodies have since attained their original mission and there is now an established and fluid secondary markets whose economic gains are visible. There are now calls from Congress to privatise these two Government Sponsored Enterprises (GSE) as their goals are already attained (<http://www.freddiemac.com/corporate/reports/>). Technological shortcomings and a depression-era, which prevented the widespread availability of home mortgages, necessitated the creation of Fannie Mae. It would appear Kenya is at similar cross roads and in its bid to stabilise the interest rates on mortgages it could look at the American solution.

According to Ball (1990), in the USA the SMM became the principal provider of mortgage funds in the 1980's and by 1987, 72% of originations were financed through it. S&L in the United States now tend to sell all of their new fixed interest mortgage originations on the secondary market to avoid the risk of adverse movements in interest rates. In this respect S&Ls have increasingly taken on the mortgage banking function of originating and servicing mortgage rather than holding them. Almost 10% of thrift income in 1986 were derived in this way (Brumbaugh & Carron, 1987).

Under SMM equal access is given to all originators of mortgages and developers or house builders can provide the finance by creating a mortgage and selling it. They thus profit from originations and subsequent sales of mortgages as any other institution in the USA. According to data from Federal Reserve bulletin 1988, house builders originated about 65-70 per cent share of the new owner occupied housing market.

To reduce the competition pressure from the SMM, the S&Ls were lobbying heavily to limit the activities of these agencies with a view of making them less beneficial to other mortgage originators or mortgage bankers (Jaffe, 1987).

The scale of the secondary market and the wide number of institutions with access to it mean that the rate of interest charges on fixed rate mortgages is determined in the SMM. All issuers of mortgages have to respond to the competition offered by it. The short term responsiveness of mortgage interest rates to changes in the yield on the 10 year Treasury bonds increased as a result (Ball, 1990).

In Kenya, the absence of SMM leaves the main end financiers to determine and influence the lending market with the developers having to go out themselves to convince them to offer end finance. The responsiveness of the mortgage institutions to the movement of the Kenyan 90 days popular TB rates is very poor. For example in 1994, the real deposit rate was 6.78%, Treasury bill rate 10.62% while real lending rate was 27.83. Thus there was a spread of 21.05 between deposit and lending rates.

Financial liberalisation calls for the abolition of interest rate ceiling and promotion of free competition among financial intermediaries. Although competitiveness does not imply the non-existence of interest rate spread the size of the spread is much higher with a non-competitive market structure (Ho & Saunder, 1981). According to Ngugi and Kabubo (1998) there were 51 commercial banks 23 non-financial banking institutions and 5 building societies in Kenya in 1998. The number of actors in residential mortgage financing is therefore small.

Ukierman & Hercowitz,(1990) found out that when the number of banking firms is finite, an increase in anticipated inflation leads to an increase in interest rate spread. As the number increases (competitive case), there is no correlation between interest rate spread and inflation as the spread tends towards marginal cost of intermediate with increasing number of banks. Fry (1995) has argued that in an oligopolistic banking system there is need for competition from the direct financial market. The question raised by Ndung'u & Ngugi (2000) is how competition can be introduced into the banking system. In the case of residential mortgage financing, SMM appears to be a solution. Wholesale lending leads to very competitive lending rates. These low rates lead to low mortgage delinquency as evidenced by the figures given in Table A.2

2.4.2 Lesson from Malaysian Experience

“Cagamas Berhad, the **National Mortgage Corporation**, was established in 1986 to promote the secondary mortgage market in Malaysia. Its corporate mission was and still is to provide financial products and services that would improve the availability and affordability of loans for the purchase of homes, particularly for the lower income group. It borrows money by issuing debt securities and uses the funds to finance the purchase of housing loans from the financial institutions, selected corporations and the Government. The provision of liquidity at a reasonable cost to the primary lenders of housing loans encourages further financing of homes at an affordable cost” (<http://www.cagamas.com.my/> 11th July 2001). These objectives are achieved by:-

- ◆ Developing the secondary mortgage market through the provision of innovative facilities and efficient service at a competitive cost to the primary home lenders.
- ◆ Enhancing the capital market, particularly the private debt securities market, through widening and deepening the scope of securitisation.
- ◆ Nurturing and maintaining a competent workforce of the highest integrity and professionalism.
- ◆ Using technology to enhance productivity and efficiency.
- ◆ Valuing staff for their commitment and loyalty.
- ◆ Inculcating a caring and responsible corporate culture.

More about the Cagamas operation can be obtained from the above website.

a). Cagamas Rates

“The following are the rates at which Cagamas stands ready to purchase conventional housing loans, industrial property loans, and Hire Purchase/Leasing Debts from approved customers” (<http://www.cagamas.com.my/> 11th July 2001)

Table 2.1 Cagamas Interest Rates

Fixed Rates	Housing Loans (% p.a.)		Industrial Property Loans (% p.a.)	HP / Leasing Debts (% p.a.)
	Preferred *	Standard		
-				
3 years :	3.85	3.90	3.90	3.90#
4 years :	4.15	4.20	4.20	4.20
5 years :	4.35	4.40	4.40	4.40
6 years :	4.55	4.60	4.60	4.60
7 years :	4.70	4.75	4.75	4.75
8 years :	4.85	4.90	4.90	-
9 years :	5.00	5.05	5.05	-
10 years :	5.15	5.20	5.20	-
Convertible(one option)	3.55	3.60	3.60	-
Convertible(two options)	3.50	3.55	3.55	-
Floating Rates				
<i>Three</i>				<i>years</i>
Housing	Loans		&	
Industrial Property Loans : 3 or 6 months KLIBOR plus 20 basis points				
<i>Convertible</i>				<i>(one option)</i>
Housing	Loans		&	
Industrial Property Loans : 3 or 6 months KLIBOR plus 25 basis points				
<i>Convertible</i>				<i>(two options)</i>
Housing	Loans		&	
Industrial Property Loans : 3 or 6 months KLIBOR plus 30 basis points				
Above are the rates at which Cagamas stands ready to purchase housing loans, industrial property loans and hire purchase / leasing debts from the financial institutions.				
* "Preferred" refers to housing loans with a ceiling rate of 9% p.a.				
# Also applicable to 2-year contracts.				

Source: (<http://www.cagamas.com.my/> 11th July 2001)

NB. KLIBOR - Kuala Lumpur Interbank Offer Rate

2.5 ROLE OF INSURANCE IN MORTGAGE FINANCING

Mortgage insurance is an important part of mortgage process. In Kenya, all residential mortgages are insured to protect the lender from both physical loss and financial loss under replacement value basis. There is also a life insurance for all borrowers under the lender's Group Mortgage Protection Scheme which insure against the borrowers loss of life under which circumstances the mortgage is written off by the insurance paying the lender the outstanding sum. The risk of loss is transferred to insurance companies who charge a premium to issue a policy.

Under reinstatement policy both the lender and borrower who have an interest in the property are stakeholders in the proportion of leverage and equity. Overtime the lenders interest decrease as the loan is amortised. The premium payable is dependent on the property's value and the risk or potential of loss.

Under the life assurance policy the premium payable is determined by the age and health of the borrower, the exposure of one's life to danger and finally by the sum insured which is usually the leverage or borrowed funds at any one time. This is as far as the role of insurance in residential financing in Kenya extends. Life assurance transfers the lender risk of the borrower losing his or her life and thus bearing behind a debt. The role of insurance in Kenya is left to the private sector.

In the USA context the role of insurance in residential mortgage financing goes beyond the above two. Insurance plays a key role in securitisation of mortgage by guaranteeing payment in case of default. There is government-sponsored insurance, which became a feature of mortgage financing in the 1930s. This involves Insurance of mortgage repayments against default and the insurance of savings deposit against failure of the bank in which they are deposited.

There are several government agencies, which offer subsidised insurance against mortgage default to encourage owner – occupation. Qualifying mortgages are insured by a number of government agencies namely Federal Housing Administration (FHA), the Veterans' Administration (VA) and the Farmers Home Administration (FMHA) (Ball, 1990).

A qualifying mortgage generally meets the following criteria: -

- i. The property must be appraised or valued by a qualified Appraiser or Valuer to determine its market value. Then a Loan to Value Ratio (LTV) is used to determine the loan amount.

The FHA insures loans to lenders by allowing them to make mortgages to buyers for up to 95 % of a home value. The maximum advance, which can be guaranteed

under FHA mortgage loans, is \$90,000 which is approximately Kenya shillings seven million (Kshs. 7,000,000/-).

- ii. A credit report must be obtained to determine the borrower's true history of handling debt.
- iii. The actual income of the borrower must be established to determine how big a mortgage can be afforded as expressed in specific ratios of debt to income (Irwin, 1995).

VA programs are similar to FHA up to the extent that the government administers it. VA loans have different criteria as they are advanced to veterans or those who have had military service.

FHA loans attract about 5% of the property's cost as mortgage insurance premium (MIP) payable in lump sum up front and is not refundable. This is a lot of money and the up front payment is a disadvantage to borrowers as they lose if they sell the property within 5 years.

There is Private Mortgage Insurance (PMI) for conventional mortgages or those mortgages that do not fall under the government mortgage insurance. Private insurance is generally required whenever the LTV ratio exceeds 80%. The sums insured under PMI are those above the LTV ratio and the Insurance Premiums should ideally cease to be paid once the borrower has paid down the loan up to LTV ratio. The costs of this insurance attract a premium of 0.025% to 0.5% of the excess funds above the LTV ratio.

In the USA life insurance is not a requirement for the value of the mortgage. (Irwin, 1995). In Kenya it is important since there is no insurance on mortgage default and the passing away of a borrower would leave the family paying the loan and if it cannot meet the repayments, foreclosure might set in. In the USA there is no age limit for a borrower unlike in Kenya.

Mortgage insurance is a very important part of the mortgage process and particularly under secondary mortgage markets where the loans have to be securitised. It is also important particularly as housing prices go up and people have less and less cash available for a down payment.

2.6 SECURITISATION

There is no universally accepted definition of securitisation. This is due to the different needs of persons who act as originators of securitisation and the resultant complex structures. However simply stated, securitisation refers to conversion of cash flows into marketable securities. This is done through a process through which illiquid assets are packaged, converted into tradable securities and sold to third party investors in the capital markets. Securitisation was first carried out in the USA when real estate assets were securitised with the sponsorship of the government.

The loans are converted – or securitised – into liquid, very flexible instruments. "The resulting Mortgage Backed Security (MBS) carry a guarantee of timely payment of principal and interest to the investor, whether or not there is sufficient cash flow from the underlying group of mortgages" (www.fanniemae.com/markets/mbssecurities/product_info/mbs/mbs.html). On the other hand the term Asset Backed Security (ABS) refers to securities backed by any other asset except those collateralised by mortgages.

The securitisation process in Malaysia is very simple. Primary lenders such as commercial banks grant housing loans to the buyers. They subsequently sell these loans to Cagamas. Cagamas would then raise funds from the market to finance these purchases by issuing debt securities in the form of the longer term Cagamas Bonds and the shorter term Cagamas Notes to investors. Investors include the financial institutions, insurance companies, pension funds, non-resident companies and others who are interested in investing in short term and medium term papers to obtain a fixed income or income at an adjustable rate. Cagamas, therefore, effectively converts a long-term illiquid asset in the form of housing loans into debt securities that are

tradable in the market. This process enables the investors to earn an income from Cagamas securities, which is basically derived from the interest paid by the house buyers on their housing loans (Shanmuganathan, 1997).

South Africa has also a securitised market. The South African Home loans (SAHL) is one of the companies engaged in this and has also a simple securitisation process. Its securitisation is a financial mechanism designed to by-pass the traditional intermediaries, the banks, by linking borrowers directly to the money and capital markets (<http://www.sahomeloans.com/profile/securitisation.htm>). This company's securitisation process is described in details on the quoted web site.

Some of the benefits of securitisation are lower costs of funding and capital requirements, both improved returns and liquidity, reduced risks due to the selection of low risk assets to be included in the asset pool an enlarged portfolio thereby spreading risk. However there are disadvantages of securitisation which include its complex structures, reliance on a lot of expertise from various disciplines. In some countries the Banking legislation makes it difficult for securitisation market to be established.

Securitisation has met opposition from banks in countries like South Africa. Banks have had perceptions that they are the only ones which can use securitisation (Van Den Berg, 2000). The position of the banks on the role of SAHL is well explained in the company's website <http://www.sahomeloans.com/pressreleases/article53.htm>. There is no law or official regulatory policies in Kenya regarding securitisation which should be put in place by the government which regulates Banking and Capital Markets. The local banks, which have made super normal profits in the past out of lending at extremely high interest rates, may not be keen to encourage or participate in the securitisation process. Securitisation would erode their profitability due to the low lending rates characterised by this form of finance.

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2.7 FINANCIAL LEVERAGE

Financing is the major part of real estate investing. It has been observed that it is not the availability of cheap debt financing that is really important but it is the gains available to creative investors who know how to structure debt and equity financing packages to solve problems.

Financial leverage in real estate financing means debt financing and it affects real estate investments in several ways. The investor uses debt with the belief that the rate of return earned by the investment will be greater than the cost of borrowing.

This important factor is called financial leverage. It is, however, measurable in income – producing real estate. It can be applicable in owner occupied properties as long as their market rentals can be established. There are conditions for favourable leverage.

If there will be a gain as a result of borrowing, favourable financial leverage exists. Where the opportunity rate of return from real estate investments is not expected to be greater than the loss of borrowing, favourable financial leverage will not exist. In this case unfavourable financial leverage exists and the investor is better of reducing the amount borrowed to finance the investment. Unfavourable leverage means that an investor is paying more for the use of funds than the investment is expected to return. No investor would knowingly undertake unfavourable financial leverage to achieve wealth maximisation (Jaffe & Sirmans, 1995).

In Kenya, interest rates are quoted at nominal rates and not at the true rate as interest is payable monthly. This could lead to higher effective rates than the quoted lending rate. The absence of requirements for the borrowers to quote the Annual Percentage Rate compounds the borrower's problem of determining the real rates of borrowing. The lender is obligated in the USA under "The Truth Lending Act to inform the borrower of the APR (Jaffe & Simans, 1995).

The above position contradicts the Kenyan situation where residential property returns hardly go beyond 9% based on rental returns while the cost of borrowing or lending rates on residential properties have been well over 20% since 1994. The high rate of inflation and property appreciation in value at the onset of the high interest rates meant that the total return on the property i.e. rent plus annual appreciation would have matched the rate of interest on borrowed funds. The prevailing property prices stagnation and decline appears to have reversed this situation and resulted to unfavourable leverage for the last few years. The low rental returns are an indication that investors could be sharing the property appreciation returns with the financiers.

Consequently real estate which requires a large capital outlay to acquire and therefore calls for leverage has suddenly become unattractive. The low tax rebate on individual incomes arising from paying interest has not improved the situation. The government has since 1999 been giving mortgage tax relief to mortgage holders based on a maximum interest sum of Kshs 100,000/- p.a. Previously this sum used to be Kshs. 56,000/- which sum would be deductible from the taxable income.

2.8 NOMINAL AND EFFECTIVE INTEREST RATES

"Back in the 1960's in the United States of America, lenders were so abusive with interest-rate gimmicks that congress passed a law- The Truth in Lending Act- to protect borrowers. Today if you buy something and finance it the lender is required to tell you the true Annual Percentage Rate (APR) of interest on the loan" (Winger & Frasca, 1995, pp.88). This gives the borrower the 'true' cost of borrowing. In this way the APR seeks to provide a common measure of comparison for consumers who may wish to compare-shop between more than one financing source (Jaffe & Sirmans, 1995).

The rates of return provided by different investments or lenders are usually compared by means of the annual rate of interest quoted. Mortgage Finance Companies usually quote net rates of interest payable on loans such as 19.9% per annum representing the costs of the borrowed funds. Sometimes however, such information should be

qualified by the frequency of payment of interest. Where interest is not paid annually, the quoted rate of interest will often be misleading (Baum et al, 1997).

When the interest rates are paid more than once in a year the quoted annual rate is called the *nominal* rate of interest. If the loan is payable monthly and the quoted annual rate is 19.9%, the *true rate* is 1.658%. When the rates are quoted on periodic basis, the nominal rate represents the periodic rates converted to an annual basis. For example if the true rate is 1.658% per month, the nominal rate is 19.9%.

The actual rate of interest earned in the year is the *Effective Annual Rate* of interest and is obtained by compounding the true rate for the period of one year. If the true rate is 1.658%, the effective rate using the formula $(1+i)^n - 1$ is equal to $(1.01658)^{12} - 1 = 21.81\%$. When the true rate of return is compounded more than once a year the result is an effective rate that is larger than the nominal rate. The degree with which the effective rate exceeds the nominal rate depends on the level of interest rate and the frequency of conversions (Muchiri, 2000). Investments are therefore best compared by means of the annual effective rate of interest. In Kenya such an Act does not exist and the MFCs have been very abusive in interest rate calculations. This has led recently to the emergence of interest calculating companies like Interest Rates Advisory Centre (IRAC).

2.9 KENYAN LEGISLATIONS AND REGULATIONS OF MORTGAGE FINANCING.

In Kenya there are various relevant legislations governing banking, for residential financing are:-

- a) *The Banking Act Cap 488 of 1989*: It is an act of parliament to amend and consolidate the law regulating the business of banking in Kenya and for connected purposes.

Section 15 of this Act deals with Mortgage Finance Companies (MFC). Subsection (1) spells out the types of the loans MFC can make. This is restricted to

purposes of acquisition, construction, improvements, development, alteration, or adaptation for particular purpose of land and for no other purpose.

The repayment of the loan is secured by way of first mortgage or charge. Subsection 3 (b) fixes maximum loan as an amount, which may be prescribed from time to time by the minister or 90% of the value of the mortgage charged. It can also be any additional security or of the purchase price thereof in the case of acquisition without additional security, whichever of these is the least. For the purpose of this paragraph “value” means the value determined by a qualified Valuer selected by or in the employment of the company making the loan. The value of any additional security may be taken into account to subsection (3) C.

Subsection 3 (e) prescribes the interest charges on loan. It states charge on any loan interest at or equivalent with any and all fees charged and additions to a rate per Centrum per annum in excess of such maximum rate as may be prescribed by the Central Bank from time to time.

Sub-section 4 (a) deals with interest on deposits. It states pay on deposits interest at or equivalent with all additions including the value of any inducements to deposit to a rate per Centrum per annum in excess of such maximum rate or below such minimum rate as may be prescribed by the central bank from time to time.

The above two subsection i.e. 15 (3) (e) and (4) were deemed to have been repealed on financial liberalisation of interest rates in 1991 whereby banks could lend and take deposits at whatever rate without reference to the Central Bank. Legally complete liberalisation as discussed below under the CBK Act may not have technically taken place until much later when the Banking Act was amended in 1997.

Following the financial crises of 1984/86 the banking act was amended to facilitate establishment of Deposit Protection Fund in 1985. The fund was operationalised in 1986 and it was meant to protect depositors, particularly small

depositors in the event of insolvency in any contributory institutions and to foster public confidence in the banking institutions and thereby provide an environment conducive to a stable banking industry (Kagira and Kirkpatrick, 2001). This is provided for in the act under section 36, which creates the Deposit Protection Fund Board (DPFB). Section 37 deals with contribution to the fund while section 39 is on protection of deposits. The deposits protected are up to a sum of 100,000/- per depositor. Most of the depositors fall under this category.

- b) *The Central Bank Act of Kenya Act Cap 491* Revised in 1984: This is an act of parliament to establish the Central Bank of Kenya (CBK) and to provide for the operation thereof to establish the currency of Kenya and for matters connected therewith and related thereto.

The Act gives the CBK powers and duties that are generally given to central banks which include regulatory and supervisory role over specified banks. It enforces the credit controls over these banks as provided for under Section (40). Under Section 39 the bank may, from time acting 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 institutions.

The above two subsections i.e. 15 (3) (e) and (4) a was deemed to have been repealed apparently on financial liberalisation of interest rates in July 1991 whereby banks could lend and take deposits at whatever rate without reference to the Central Bank. Kenya gazette notice number 1617 of 1990 fixed the maximum interest chargeable at 19 per cent. However although the government revoked the interest rate controls in 1991 through gazette number 3348 of 1991, the relevant clause in Banking Act was not repealed until 1997. Consequently it implies that the banks in the following years raised interest rates without consulting the borrowers -with whom they had entered into previous agreements- in the belief that the interest rate regime was over or liberalised. This has resulted to recent

court cases with borrowers seeking remedy by challenging higher interest rates charged before the repeal of the relevant sections of the Banking Act.

This section of the Act deemed to have ceased to apply on liberalisation of the financial markets and interest rates in July 1991 has also been the subject of discussion following the proposed amendments to the act relating specifically to this section. The changes were to come into effect on 1st January 2001 but the bill failed to get immediate presidential ascent and was referred back to parliament for changes. The proposed change was to have the amendments affect new borrowings and not the existing ones. Section 2 of the amendment is discussed below under the proposed bill.

c) *The mortgages (special provisions) Act Cap 304 Revised 1970*: This is an Act of parliament to enable the Housing Financing Company Kenya Ltd. (HFCK) to obtain possession more easily of property in respect of which it is able as mortgagee to exercise its powers of sale or appoint a receiver. This is a very short Act and has only seven sections and its purpose is as cited above.

2.9.1 The Central Bank of Kenya (Amendment) Act, 2000 (Donde Bill) and its Implications

This is an Act of Parliament to amend the Central Bank Act of Kenya. It is commonly referred to as the Donde Bill after legislator who originated it as private members parliamentary bill. The amendment is an insertion of the following:-

Sect.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.

Provided that the maximum interest chargeable under this subsection shall not exceed the principal sum loaned or advanced and provided further that this subsection shall only apply to contracts for loans or advances made or renewed after the commencement of this section.

Sect.39 (2). The Bank shall ensure that any monies held in deposit accounts in specified 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 (Government of Kenya, 2001).

The bill was given presidential assent on 6th August 2001 and its commencement date was 1st January 2001, which was in retrospect. The banks, were opposed, to the Act filed a court suit to challenge the Act on constitutional basis. They argued that the legislation was not only interfering with private contracts but the retrospective aspect was going to make them incur losses by paying more for deposits and refunding excess interest on loans (The East African, 2001). The bill would only regulate new loans while the bulk of mortgage holders would be locked out from its benefits for years until their loans are paid up or perhaps refinanced or rescheduled their loans which is usually not common in Kenya.

The effects on borrowing would be: -

- i. Demand for credit and rates charged vary due to many factors and the different lending rates are not necessarily linked to the Treasury Bill (TB) benchmark, which may not reflect for example, the risk, involved in lending.
- ii. Regulation would also change the strategic behaviour of market actors. Suppliers can ration the amount of loans available to customers or reduce the quality of service offered. They could alternatively gear up competition and reduce operation costs to be consistent with the TB rates.
- iii. Major banks unless competition increases may introduce other non-interest charges that may even over compensate them. The charges can be commission fees on loans.
- iv. Banks could start discrimination of certain segment of borrowers arguing they pose a higher risk. When there are no ceilings on lending rates it is easier for

banks to charge a higher risk premium and therefore to give loans to more risky projects.

- v. Using TB benchmark to regulate interest rates makes them become a function of changes in government debt. Without control of government borrowing, rates could escalate to levels not even experienced in the absence of interest rate regulations. For example, in April 1993 the TB rates were at 70% while lending interest rates were on average at 25%. Going by the amendment bill proposals, the lending rates would have been 74%. The Act also assumes that the Government will always issue a 91-day TB.
- vi. The requirement that no further interest would be charged on the loan once total interest charged amounted to twice the original sum advanced could be used by banks to recall a long-term loan once this sum was attained. In cases of high interest prevailing, the doubling of this sum could take only a few years. This could result to a shortening of loan periods. Lenders could call upon borrowers to re-finance the loan once the legal maximum interest has been charged.

Accordingly to enhance the role of interest rate regulation through the TB benchmark, it is necessary to disconnect borrowing for fiscal purposes from the TB instrument for government funding. (Wagacha, 2000).

2.10 DETERMINATION OF SUSTAINABLE INTEREST RATES IN RESIDENTIAL FINANCING

Interest rates are the prices of borrowing. The risk-free real interest rate is the cost of funds net of any premium for each of the risks inherent in granting use of funds to an unrelated party over a long period of time and also the risk of reduction in the value of the currency due to inflation.

In the mortgage equation the most important variable is the interest rate. It is the key determinant of the gains from the relationship between the lender and the borrower. If it is too high, it leads to unfavourable leverage while on the other hand if it were lower than the cost of the funds to the lender, this would mean making losses for the

later. Interest rate charged also influences the demand for financing and its sustainability.

According to Diamond Lea, (1995), these risks include credit risk, system risk and political risk. All these risks are associated with potential loss, either in the form of money or in anxiety and painful adjustments e.g. borrowers facing higher monthly payments.

The risk-free real rate for savers differs from that for borrowers by an amount equal to the operating costs and profits of intermediaries. The real interest for savers need not be positive for them to want to save. Most savings are done for reasons other than seeking positive returns. However a negative real rate on financial savings will encourage direct investment in consumer durables e.g. real estate, physical or tangible assets like gold rather than giving funds to financial intermediaries.

The costs of doing without formal sector housing credit is to pay the full price of a house after accumulating savings over a long period of time or building gradually. With credit the house can be bought now and paid for over a long period of time.

The above alternatives might be attractive if the cost of formal sector finance were very high, say a premium of 50 to 100 percent over the basic cost of the house. A real cost of financing (net of the inflation premium) of 5% per year for a self amortising loan over 15 years implies a premium of 47% in the sum of repayments over the initial amount of the loan (Diamond & Lea, 1995).

In most societies, especially in urban areas there is a willingness to pay a reasonable cost to be able to acquire housing sooner than later. However, this need not be the case under high costs of financing or where social norms of living allow living with parents, households would rather under such circumstances save the entire cost in advance (Diamond & Lea, 1995). This is evident in Kenya among some societies that are culturally gregarious and have a high degree of mobility. The question, which still begs for an answer is how much financing and at what cost to the individual

household, is the right amount? Secondly how efficient is the system and what are its total costs to the society?

All formal sector financial intermediation exists with the support of some government intervention. The government is in the theoretically advantageous position of controlling many of the factors that make lending for housing risky. It can influence affordability by setting interest rates. Given the power to print money, it faces no liquidity risks and can best absorb credit losses (Diamond & Lea, 1995).

The Kenyan interest rates are very high and at 25% the borrower of a self-amortising loan repays a premium equal to initial sum borrowed within a period of 4 years. It was hoped with complete financial liberalisation interest rates would tend to converge towards international rates (Ndung'u & Kiriangai, 2001). What are the international rates? The Malaysian Cagamas interest rates have a high of 5.20% for the 10 years fixed lending rate for both housing and industrial loans. In the USA the housing loans under Freddie Mac as of 2/8/2001 for a 30 years loan was 7.00% and for a one year ARM 5.77%.

Given the above rates and taking into consideration the Kenya rate of return to housing properties a rate slightly higher than the above but in the region of one digit would appear to be appropriate. This would avoid negative amortisation and unfavourable leverage, which wipes the gains of the investor. The rate should reflect the fact that investment in housing is a financial saving out to seek positive returns and. In the absence of these considerations the mortgage would not be sustainable.

2.11 FEATURES OF A SUSTAINABLE MORTGAGE (REQUIREMENTS OF A CONCEPTUAL MODEL)

The mortgage market in Kenya has been very unstable due to high inflation and variable interest rate policies coupled with an oligopolistic banking system. What should be done to bring stability to the mortgage market? How can mortgage risks be shared between borrowers and lenders fairly and in a sustainable manner over the life of the loan? Implementing an affordable mortgage that meets the constraints of the

lender and borrower is the only way of attaining an equitable mortgage and provision of housing. Housing finance is all about getting money to people who want to buy or build houses. Several types of mortgage meet this requirement but while they may be practicable in the developed and highly efficient economies they may not be appropriate for the Kenyan economy due to their complexities and the local economy's volatility.

The most important criteria for designing a mortgage according to Diamond, (1997) are:-

- 1) *The risks to the lender/investor*: Will these cash flows from the borrower allow the lender to meet the lender's repayment requirements otherwise it may be the lender that is being foreclosed on. Will the ultimate investor receive a competitive market return.
- 2) *The risks to the borrower*: Will the borrower be able to meet those terms? Even lenders operating in systems that are very efficient and even callous about foreclosing and evicting defaulters would rather not have to do that. Once having met requirements 1&2 in a most basic way, lenders and borrowers can move on the 3rd most important criterion in mortgage design.
- 3) *Affordability*: Essentially how can the terms be constructed to allow the borrower to borrow?
- 4) *Simplicity*: This is the degree to which the borrower and even the lender fully understand the deal they are making. This is usually a function of the loan terms.

A conceptual model suitable for Kenyan residential mortgage market and developed along the above requirements is developed at the end of the study and recommended for adoption. The existing and emerging financing strategies are judged against the above requirements to gauge their suitability.

In conclusion it has been revealed that in developed countries the role of the state in regulating the financing of housing is more than that played the Kenyan Government. Governments in developed countries are proactive in resolving problems in the housing markets unlike in Kenya where legislation to resolve problems originate from private members and need not attract the states support. Very little intermediation can be attained without the state's intervention. The Kenyan government should play a more significant role in stabilising the residential housing markets.

CHAPTER 3

KENYAN ECONOMIC LIBERALISATION: RESIDENTIAL FINANCING AND BACKGROUND OF CASE STUDIES

3.1 FINANCIAL LIBERALISATION IN KENYA

Liberalisation comprises an ambitious set of reforms involving privatisation of public institutions, removal of restrictions to entry into banking measures aimed at increasing competition in financial markets, reduction of legal requirements, elimination of lending rates and the freeing of official interest rates (Montiel, 1995).

Interest rates in Kenya were decontrolled in July 1991 (Ndungu & Ngugi, 2000). According to financial repression theory, after liberalisation, positive real interest rates should be realised after nominal interest rates increase from the government set low levels when price stability is achieved. The financial system also gains efficiency in the intermediation process such that interest rate spread between lending and deposit rate narrows. At the time of decontrol the interests on residential mortgages were 18%. By 1994 the interest rates were 26% for owner-occupier houses and 29% for let out residential or “commercial” according to HFCK Ltd Mortgage interest rate movement chart.

According to Fry (1993) the efforts towards financial liberalisation can be disappointing. Asia and Latin America have experimented with financial reforms for a long time some of them radical reforms, only to abandon them halfway through with new banks flourishing and collapsing threatening the whole financial system. These experiences show that there are preconditions that must be met before financial liberalisation can be embarked on. In Kenya, Ndung’u & Kiriangai (2001) argue that the failure of the right results to be achieved could have been due:-

- ◆ Lack of diversity in financial institutions and assets creating an uncompetitive financial market. For example the young stock market could not compete for government securities or treasury bills. The Kenyan financial market is oligopolistic, which creates lack of competition.

- ◆ Inflationary pressures because of the lack of an appropriate mechanism to hedge against future inflation. Thus a strong preference for holding inflationary hedges as opposed to deposits whose rates were not compensatory to inflation.
- ◆ Uncertainty on bank income earnings due to macro and financial instability and low demand for credit. This reduced bank commitments to payment of costs for deposits.
- ◆ Persistently high Treasury bills encouraged banks to the bills thus relegating their financial intermediation process.

The interest rates have persisted to be high over the years and the question arises as to what sustains high interest rates in Kenya? According to IPAR (2000), the cause was rapid financial liberalisation in the early 1990s coupled with the onset of government as a major player in debt financed budget. This is inappropriate fiscal policy termed as Domestic Debt Strategy (DDS). Implementation of liberalisation in the early 1990s was unaccompanied by a significant strengthening of supervision and regulation. The negative consequences of early rapid liberalisation on interest rates, capital flows, the exchange rate and economic growth have been confirmed by several systematic empirical studies of other developing economies (Wagacha, 2000).

Inefficiency and un-competitiveness of the banking system and high operation costs coupled with poor asset structure of banks spreads from farming to real estate are some of the other causes. Five (5) banks hold over 60% of banking assets while 44 hold about 40%. Banks were not equipped for credit and risk analysis before full liberalisation. A sharp increase in Non Performing Assets (NPAs) resulted when interest rates increased out of proportion with collateral values. The above banking set up can lead to oligopolistic tendencies by the main actors (Wagacha, 2000).

According to Ndungu & Ngugi (2000), widening interest rates spread is an indicator of the underlying weak institutional and policy set-up of the financial sector. When there are no ceilings on lending rates it is easier for banks to charge a higher risk premium and therefore to give loans to more risky projects. This increases the rate of bank insolvency as non-performing assets increase. As a result, banks attempting to

defend their profit margins will charge high interest rates on the performing loans. The impact is felt more with economic shocks, when there is no hedging of such risky loans by a well-diversified portfolio. A high interest rate charge on performing loans leads to more mortgage delinquency and is unfairly punitive to the borrower.

This situation resulted in calls for controls of interest rates on loans to curb the excesses of the banks. A private members bill in parliament was passed to amend the Central Bank of Kenya Act (Cap 491). Wagacha (2000) argues that the impact of such amendments would be to narrow the spread (difference between lending rate and borrowing) earned by the bank and non-bank financial institutions. The spread is quite high relative to economic activity and global levels. The spread between real lending rate and real saving rate spread was 4.5% during 1988-1992 to a peak of 18.8% in 1999. This is neither sustainable nor equitable between the depositors and banks and between the borrowers and lenders, as the latter are the only beneficiaries.

3.2 MARKET STRUCTURE AND PERFORMANCE OF THE KENYA BANKING SYSTEM

Kenya's financial system is comprised of the Central Bank and banking institutions, which fall under Central Banks' regulation. These institutions include commercial banks, Non-Bank Financial Institutions (NBFI)s, Mortgage Finance Companies (MFCs) and Building Societies. As illustrated in the table 3.1, the number of banking institutions declined by 46% from 119 institutions by March 1993 to 64 institutions by August 2000. The term financial system here is used in a narrow sense to include money market institutions only (Kagira & Kirkpatrick, 2001).

Table 3.1: Types of Banking Institutions Under CBK Regulation

<i>Type of Institution</i>	<i>March 1993</i>	<i>1997</i>	<i>1998</i>	<i>2000</i>
Commercial Banks	32	53	53	51
NBIFs	55	17	14	9
Building Societies	32	4	2	4
Total	119	74	73	64

Source: (Kagira & Kirkpatrick, 2001 pp: 5).

Other than the above institutions, which come under Central Bank's regulation, there are a host of other institutions in the financial system, which play an equally important role in financial intermediation. These institutions include some 8 Development Financial Institutions (DFIs), 1 Post Office Savings Bank, a galaxy of Micro-Finance Institutions and some 3,200 savings and Credit co-operative Societies (SACCOS) (Kagira & Kirkpatrick, 2001). Recent policy developments in the co-operative movement encouraged Savings and Credit Co-operative Societies to form rural banks under which such institutions are collecting deposits from non-members. The SACCOS are, however, fraught with several management weaknesses, due to the fact that day to day management is vested in an elected Executive Committee without due regard to profession.

Kagira & Kirkpatrick, (2001) have summarised the deposits and lending rates for the years 1995 to 2000 from Central Bank of Kenya which are combined with the inflation and Treasury bill rates of the same period in Table 3.2.

Table 3.2: Deposits and Lending Rates (1995-June 2000)

<i>Interests</i>	<i>1995</i>	<i>1996</i>	<i>1997</i>	<i>1998</i>	<i>1999</i>	<i>June 2000</i>
i) Savings Deposits	9%	11%	10%	8%	6%	5%
ii) Fixed Deposits (Simple Average)	13%	15%	17%	14%	9%	8%
iii) Loans interest	33%	29%	30%	26%	25%	22%
Interest Margin	20%	14%	13%	12%	16%	14%
Inflation	1.6	9.0	11.2	6.6	3.5	6.2
Treasury Bills Rate	19.09	23.0	22.49	23.32	13.29	12.07
HFCK Interest Rate	24%	26%	26%	26%	24%	26%

Source: Kagira & Kirkpatrick, (2001) and Central Bank of Kenya

There is a lack of clarity on circumstances under which the Central Bank can intervene through formal or informal actions. Although the CBK has made some good effort in setting out procedures for interventions in the prudential guidelines, the

guidelines are fraught with some weaknesses. In particular, the guidelines do not give trigger indicators, which should guide the bank in automatically deciding for intervention. For example when the inflation rate was at 1.6% in 1995 the interest on loans was at 33% while savings deposit rates were at 9% and 13% for fixed rates. The argument put forward by banks that the real rates of return are low which warrants high lending rates does not suffice. In 2000 when treasury bills rate averaged 12.07% respectively, and deposit rates were at 5% while inflation was at 6.2%, the HFCK interest on loans remained at 26% p.a. The low TB rates could be associated with the government's financial discipline and good monetary policy at the time. The above scenario caused a lot of outcry yet there was no intervention from the relevant authorities. A graphical representation of interest rate and macroeconomic indicators is shown in appendix Fig.A1.

Observations by Kagira & Kirkpatrick, (2001) are that the lack of legal provision for development of credit rating and reference bureau's, which are important institutions in determining the borrower credibility and reduction of bad debts, has compounded the crises in the financial sector. Although Central Bank has come up very strongly in support of the development of credit rating and reference bureaux, there is no legal framework in place to facilitate the two newly launched companies to provide their services effectively in the banking sector. The credit bureaux are important in the creation and operation of secondary mortgage markets, which have been advocated for to ease the problems in the residential housing finance.

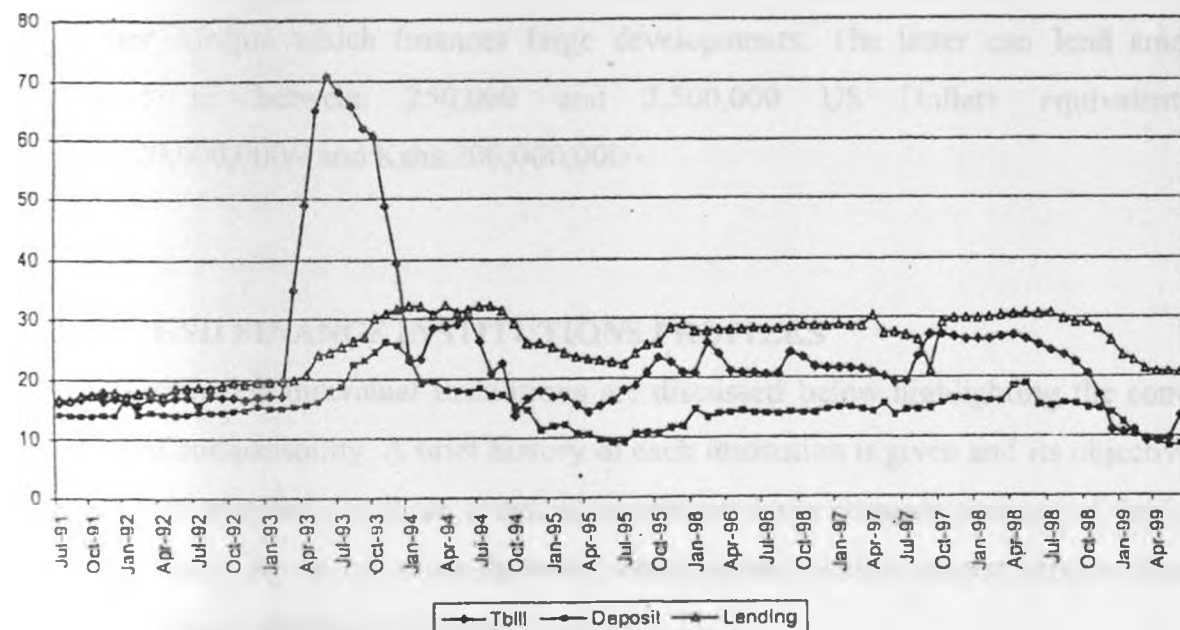
3.3 EFFECTS OF THE HIGH INTEREST RATES ON HOUSING FINANCING

Interest rate is the key determinant of the investment decision to the borrower as it affects financial leverage. The mortgage constant is the factor that relates the interest rate and the amortisation.

The effects of financial liberalisation and the subsequent rise in interest rate was to destabilise the mortgage constant equation thereby increasing the monthly mortgage instalment payments, whose effect in turn would be to increase mortgage

delinquency. Below is a graphical representation of Treasury bill, deposit and lending rate in Kenya between July 1991 and April 1999.

Fig. 3.1 Treasury Bill, Deposit and Lending Rates Spread Between 1991 and 1999



Source: (Njuguna & Ngugi, 2000, pp. 23)

The non-performing loans of all commercial banks currently stand at 39%. HFCK Ltd. in April 2001 had a mortgage delinquency of approximately 58%. This can be compared with the low mortgage delinquency in the USA where the highest rate was 4.19% in 1986 within a 10 year span (Ball, 1990). The interest rates in the USA under Freddie Mac currently range between 5.77% for ARMs to 7.0% for FRMs for 30 year loans (<http://www.freddiemac.com/pmms/>, 5th August 2001). The Malaysian Cagamas Berhad rates have a high rate of 5.20% (<http://www.cagamas.com.my/> 11th July 2001). These low rates partly explain the low rate of mortgage delinquency.

These loans which are not being serviced normally are still being administered and costs of administration continue to accrue.

3.4 SOURCES OF RESIDENTIAL FINANCE

There are various sources of financing development or acquisition of real estate in Kenya. These sources are own capital, Savings and Credit Societies (SACCOs), employers loans, harambee basis, tenant purchase, mortgage finance, pension fund related fixed mortgages, Insurance companies mortgages and other sources like Shelter Afrique which finances large developments. The latter can lend amounts limited to between 250,000 and 2,500,000 US Dollars equivalent to Kshs.20,000,000/- and Kshs.200,000,000/-.

3.5 END FINANCE INSTITUTIONS PROFILES

The profiles of individual institutions are discussed below highlighting the common areas of comparability. A brief history of each institution is given and its objectives or corporate mission. The three financial institutions have common sources of funds and they mainly rely on customer deposits, which attract similar interest rates to those of other banking institutions discussed above.

3.5.1 Housing Finance Company of Kenya Ltd. (HFCK)

The company was incorporated in 1965 as a national mortgage institution. It is licensed under the Banking Act and seeks to mobilise savings for home ownership through provision of savings and deposit facilities as well as such other services and administration of provident funds (Mutero, 1993). The company was a joint venture between the government of Kenya and CDC. Initially CDC held 60% of the shares of the company and the government 40%. In 1970 the government's shareholding increased to 50%.

HFCK Ltd. is the largest Mortgage Company in Kenya controlling over 50% of the housing mortgage market and it was established to promote thrift and home-ownership for Kenyans. It has played a major role in pursuit of shelter. The company's share holding as of year 2000 was 62.3% by individuals and institutions,

30.4% by the Commonwealth Development Corporation (CDC) and 7.3% by the government (<http://www.hfck.co.ke/about.html>, 16th August 2001).

The company is quoted in the Nairobi Stock Exchange (NSE) and its first share floatation was in 1992. The issue price per new ordinary share of Shs.5/- per value was Kshs.7.50/-. The shares reached a high of Kshs. 27/- by march 1999 when HFCK Ltd floated the shares owned by the Government at a price of KShs. 14/- per share. On 16th August 2001, the shares in the stock exchange were trading at Kshs. 4.70/-. This was below the per value of the share and a reflection of the company's profitability and investor confidence.

According to the HFCK, its business comprises the provision of:-

- Mortgage facilities to individuals to buy their own homes.
- Finance for individuals to construct or repair their own homes.
- Mortgage finance to purchasers of houses developed by private house builders and the National Housing Corporation.
- Expertise and advisory service to house builders and housing estate developers including local authorities.

The company's core business is mortgage finance. Other services include housing developments, banking, valuation and insurance. HFCK has a network of branches in the big urban areas of Kenya all of them totalling to twelve in number including the head office. Seven of the branches are outside Nairobi.

The company has two subsidiaries, which are wholly owned. These are First Permanent (East Africa) Limited and Kenya Building Society (KBS). The latter developed among other estates Buruburu Estate phase IV and V and Komarock Estate which has approximately 8,000 units and is one of the largest residential estates not only in Nairobi but also in Africa.

However following poor performance of the company and a depressed property market, HFCK Ltd decided to quit residential developments according to Daily Nation (2000).

The following are some statistical highlights from HFCK year 2000 annual accounts.

Table 3.3 HFCK Ltd Statistical Highlights

	2000 (Kshs'000)	1999 (Kshs'000)
Mortgage advances to customers	9,492,869	9,554,015
Investments in government securities	1,432,804	710,923
Property and equipment	385,628	538,847
Customers deposits	11,035,382	10,708,665
Dividends payable	95,634	91,029
Provision for mortgage losses	(246,522)	(416,362)
Earnings per share	0.45	0.61

Notwithstanding the above-mentioned difficulties experienced by HFCK Ltd, it still maintains its position as the market leader in mortgage financing. It can easily influence the trends in mortgage financing if it so wishes. Its special place is best demonstrated by the fact that a special Act of parliament Cap 304 (The Mortgages - Special Provisions- Act) was enacted in 1970 to facilitate its operations. This Act cited as an Act of parliament to enable the Housing Finance Company of Kenya Limited to obtain possession of a property more easily in respect of which it is able as mortgagee to exercise its power of sale or appoint a receiver. This Act could not have been more useful than it is now given the high rate of mortgage delinquency but it can not be the panacea of all its problems.

3.5.2 Savings and Loan Kenya Ltd

◆ Background

Savings & Loan (K) Ltd. was prior to 1957 known as Savings & Loan Society Limited and was incorporated in Tanganyika now Tanzania. It was a subsidiary of

Pearl Assurance Company. S&L's main objective was lending money on mortgages for purchase of residential houses.

S&L was licensed as a financial institution in 1969 under the 1968 Banking Act Cap 488. It was acquired as a subsidiary of Kenya Commercial Finance Company (KCFC) which in turn was a wholly owned subsidiary of Kenya Commercial Bank (KCB). It later became a fully owned subsidiary of KCB and has remained so to date (Mutero, 1993). Recently there was an intention to merge it with the parent company KCB but this has since been shelved or reserved.

Since 1972, Savings & Loan (K) Ltd. has grown rapidly in terms of branch expansion. The objective was to bring the services closer to the people for effective growth both in deposits and lending. There are nine branches countrywide which include three branches in Nairobi. Upcountry branches include Mombasa, Eldoret, Kisumu, Nakuru, and Thika. Savings and Loan (K) Ltd is among the three biggest Mortgage Financing Companies in Kenya.

◆ Range of Services Offered

Savings & Loan offers a range of services. However the principal objective is to encourage savings as much as possible from individuals, institutions and organised groups and to provide loans to assist people buy or build their own houses anywhere in the country.

According to S&L, there are packages to assist people save and eventually own houses. These are Deposit accounts, Housing Development Bonds, House Deposit Account (HDA), Home Ownership Saving Plan, Staff House-Loan Schemes, Financing Estate Development, End Finance Commitments and Market Support for Estate Developers. The latter service of providing end finance commitment assures developers the use of its name in marketing their products. Currently the head office Salama Branch has about 352 accounts for the special mortgage schemes. The money advanced to the borrowers of these schemes is not from S&L Ltd but from the employers.

◆ **Financial Performance**

Savings and Loan has recorded a growth in deposits, fixed assets and advances over the years. Deposits have increased from Kshs. 2.1 billion in 1995 to Kshs. 3.73 billion at the end of 1998, which was an increase of over 78%. Within the same period the company's assets more than doubled from Kshs.163 million to Kshs.344 million. The company's mortgage lending increased by 62% over the four year period from a lending of Kshs.1.76 billion in 1995 to Kshs.2.85 billion in 1998.

3.5.3 National Social Security Fund (NSSF)

◆ **Background**

The fund was established in 1965 by an Act of parliament Cap 258 of the Laws of Kenya. Before its establishment, the majority of workers were not covered by any formal retirement benefit arrangements. Certain categories of workers in the public service were covered by pension schemes while some in private sector were offered some forms of medical and retirement benefits.

Initially the fund was a department within the Ministry of Labour but as its membership grew and its operations became more complex, the NSSF Act was amended in 1987 to transform it into an autonomous state corporation. Therefore, since 1988 the fund has been operating under a Board of Trustees, which is constituted by workers, employers and government representatives. The composition of the Board of Trustees is meant to accommodate the views and aspirations of the three key social partners (i.e. the government, workers and employers representatives) in the policy formulation and the running of the organisation. However this in practice has not been achieved and the hand of the state is too evident in appointments and decision making.

The fund is a statutory pension scheme recovered from employees' monthly salaries from both the private and government sector. The NSSF Act requires all employers to register with the fund and remit statutory contributions on a monthly basis. Contributions comprise a percentage of the employee's wage, which is matched by an

equal amount by the employer subject to a set ceiling per month. An employer and employee contribute to this fund an equal amount of Kshs 80/- monthly. The purpose of this fund is to enable the employee to have funds on retirement age of 55 years or on special circumstances like medical grounds or the funds given to beneficiaries in case of death.

Under the International Labour Organisation (ILO) Convention, social security is defined as: “The protection provided by the society to its members through a series of public measures against economic and social distress that would otherwise be caused by the loss or substantial reduction of earnings resulting from sickness, maternity, employment injury, loss of employment, disability, old age and death; the provision of medical care and provision of subsidies to families with children etc” (NSSF, 2001). What this means is that a member qualifies for full benefits as specified for each of the given contingency regardless of the length of their membership. Often such benefits are closely related to members’ final earnings.

Provident funds such as the NSSF are basically compulsory savings schemes where members contribute a proportion of their monthly earnings. When they eventually qualify under any other specified contingencies they are paid their benefits in lump sum. Such benefits are actually the total sum of their contributions and a percentage of returns earned by the investments during the period in which contributions are held by the fund. In Kenya the relevant minister annually makes pronouncements of the percentage rate of pension growth to accord to the contributions. In the past this rate has ranged between 13% and 15%.

Membership has grown over the years and by the end of year 2000 the fund had a cumulative registered membership of about 2.7 million, which represents about 25% of the country’s workforce. The average active current membership accounts range from 900,000 to 1.2 million. In 1996 the Funds assets were estimated to be Kshs. 50 billion with members contributions being about Kshs. 2 billion annually and annual payments totalling Kshs. 1.2 billions. The funds annual income was about Kshs. 4

billion annually. The annual return was about 15%, which was also the trickle down effect or return on the members contribution at the time (NSSF, 1996).

NSSF is the only social security organisation, which provides basic social security to workers in the country with a nation-wide coverage i.e. reaching every district throughout Kenya.

◆ Investments

NSSF makes investments using the members long-term funds to hedge against inflation and to earn the necessary return to enable it to pay the contributors at a later date not only their contributions but with some interest. The funds can be invested under fixed deposits with banks as happened with the National Bank of Kenya where currently NSSF is the biggest shareholder. It also invests in the capital markets and in Government securities. The fund has invested in real estate in the past and in the 1990s it engaged in development of real estate where it invested heavily in residential houses and plots. According to NSSF News letter of September 1999 the Fund had invested over Kshs. 17 billion in residential housing estates in Nairobi. The Tenant Purchase scheme accordingly was part of its investment policy to diversify its investment portfolio in order to safeguard members' funds against the inherent risks in financial markets. The second reason for this was to address the demand for housing by different categories of its members and the general public by alleviating the housing shortage.

Consequently the fund developed the following estates to fulfil the above objectives:-

1. *Nyayo Estate Embakasi phase 1*: This estate had 1,056 units complete and ready for occupation by 1999. On completion of the whole estate, it will have a total of 4,774 units. The prices for the houses range between Kshs.2,250,000/- for a 3 bedroomed flat to Kshs.4,500,000/- for 4 bedroomed maisonettes with a corner shop.

2. *Mountainview Estate in Kangemi Nairobi:* The estate as of 1999 had 93 executive houses on roughly quarter acre plots. The prices of the houses ranged from Kshs.8 million to Kshs.10 million.
3. *Hazina Estate, South B:* This estate by with 375 houses was complete by 1999 and leased out by the government for occupation by Civil Servants. The prices for the houses ranged between Kshs. 2 million for a one bedroomed flat to Kshs.4.5 million for 5 bedroomed executive maisonettes. The sale of the estate was put at hold due to the nature of tenancy. The immediate occupants were latter on given the first opportunity to buy the houses.
4. *Nyayo Estate – Kibera Highrise:* This is a low-income group housing where 301 units all of them flats were put up. Prices ranged from Kshs.0.95 million for a one bedroomed flat to Kshs.1.2 million for two bedroom flats.
5. *Kitisuru Estate:* It is to the north east of the city centre. The estate has 79 upmarket residential units, some of which were incomplete by 1999. The prices ranged from Kshs.6.5 million to Kshs.8 million depending on size and status of completion. There were also vacant plots in the estate numbering approximately 71 with a price range of up to Kshs. 3 million.
6. *Tassia Estate plots:* These were vacant plots off Outer Ring road in Nairobi's Embakasi area. There were approximately 470 plots and their price was dependent on size. The price minimum of a plot was Kshs. 0.75 million with others about a quarter acre selling at up to Kshs.1.4 million.

◆ Real Estate Marketing Strategy

NSSF initially intended to offer the houses for sale to potential buyers who were to make their own financing arrangements.

Given the depressed state of the economy and the high cost of borrowing, potential buyers were finding it extremely difficult to meet the conditions set by mortgage

institutions (NSSF, 1999). This caused a slow movement of the NSSF houses in the market.

NSSF consequently adopted a tenant purchase marketing strategy. Under this scheme all, that potential house owners needed to pay was 10% of the purchase price and then pays a monthly rent for a maximum of 15 years at 15% interest. At the end of 15 years, the tenant would become the house owner and get a title deed. There would be no valuation fees, no high mortgage fees, no deposit and legal fees and transfer fees initially. The scheme was to be managed in-house by NSSF. Those wishing to pay a higher down payment and have lower monthly repayments were encouraged to do so.

NSSF appears to have had cash flow problems due to the inability to recoup funds from the sale of complete units and it therefore opted to sell some of the properties at the level of completion they were in with the buyers completing them at their own pace.

NSSF projects have in the past been surrounded by controversy in terms of quality of work and costing. Some of the estates put up for sale like Kitisuru and Tassia were incomplete. It would appear that the developer absorbed the costs and possibly made lower or negative profits, as buyers did not complain of over pricing or the quality of the houses. This could be an indicator that the reasons for the slow disposal of the NSSF houses were not related to the controversy. NSSF was not the only developer to be caught up in this situation of being left with such developments on its hands. Kenya Building Society, National Bank of Kenya and NHC were in similar situations. NHC sold its 174 houses in Jonathan Ngeno estate Langata in two weeks time after offering tenant Purchase terms to buyers at 10% for a period of 15 years. It had only managed to sell five houses in two years since 1998 on normal mortgage financing through traditional MFCs.

3.5.4 National Bank of Kenya Ltd (NBK)

The National Bank of Kenya became operational in 1968 as Kenya's first indigenous commercial bank, and the Government of Kenya wholly owned it. In 1994, the Government sold a total of 40,000,000 ordinary shares amounting to 32% of total shares, to members of the public. In May 1996, once again the Government sold a further 40,000,000 ordinary shares, bringing the Banks shareholding to its current ratios:

National Social Security Fund (N.S.S.F)	48.06%
Members of the Public (including Staff)	29.44%
The Government	22.50%

In the last few years, the Bank has rapidly expanded to gain representation in all parts of the country. Now, there are 32 outlets countrywide (<http://www.nationalbank.co.ke/> visited on 15th August 2001).

The bank has had some financial difficulties in the past and was it not for the government's intervention it would have collapsed. The difficulties arose from lending which did not meet the required standards in banking. Following the big stake held by National Social Security Fund which is a public pension fund, the Government could not watch the pensioners deposits locked in a bank which has gone under and in order to stabilise it, funds were loaned or pumped in to keep the bank afloat. The loans have since been converted to share capital and according to the Bank's year 2000 Annual accounts, the terms of the loan have been renegotiated and interest charged in the year waived both from NSSF and the Government.

One of the biggest bank's debtors was a company Cypper which had borrowed funds to develop Saika Estate approximately 16 Km to the east of the city centre along Kangudo road just opposite Komarock Phase 1 Estate. The development of the estate, which should have been complete around 1994 stalled when the developer experienced financial problems. Some houses had already been put up for sale then.

There were basically two house types i.e. a 3 bedroomed bungalow and 3 bedroomed maisonette selling at Kshs.985,000/- and Kshs.1,050,000/- respectively. The houses prices were adjusted upwards in 1996 to Kshs.1,550,000/- and Kshs.1,650,000/- respectively which prices according to NBK held until it sold all the remaining units by the year 2001.

To recover the loaned money, the bank was authorised –since this is not its core business- to issue end finance to purchasers as the estate, which had still 150 units could not attract buyers through financing offered by the traditional mortgage lenders. This is how the company entered into end financing.

The following are some statistical highlights from NBK Ltd. year 2000 annual accounts.

Table 3.4: NBK Ltd Statistical Highlights

	2000 (Kshs' 000)	1999 (Kshs' 000)
Total Assets	23,939,798	25,113,510
Loss after Taxation	2,216,569	2,648,502
<i>Share Holders Loans</i>		
Government of Kenya	4,742,192	2,500,000
National Social Security Fund	1,100,000	1,100,000

According to the company's 2000 annual accounts, the effective interest rate on interest bearing customer deposits was 5.7% and 6.4% in 1999. A loan to NBK Ltd from East African Development Bank (EADB) of Kshs.351,000,000/- attracts interest at the rate of 10.5% p.a. This loan attracts a higher interest than the one charged to the borrowers of Saika Estate, which is 10% per annum.

CHAPTER 4

EXISTING AND EMERGING FINANCING STRATEGIES

4.1 INTRODUCTION

This chapter presents the existing and emerging mortgage financing strategies of individual institutions. It also presents a comparison of these strategies by tabulating the conditions or requirements that should be met by a borrower for each of the four institutions. This is in fulfilment of the first objective of the study. This is followed by an analysis of data in line with the second objective of the study- to determine the impact of the financing strategies on access and affordability of mortgage finance. The third study objective, which is recommendation of an equitable and sustainable mortgage financing strategy, forms part of the recommendations.

Data collected for this study falls under two categories i.e. qualitative and quantitative. The data from financial institutions was collected through the administration of questionnaires while personal interviews were also used to obtain more information.

Both qualitative and quantitative data was collected from secondary sources mainly the institutions annual accounts, brochures, loan and application forms and web sites. Indeed most of the institutions referred the researcher to these sources. Where the information was given in figures or percentages the same was converted into the most commonly given format by the other institutions for ease of comparison. This was achieved by first summarising all data and relevant information in a data capture sheet.

Data on properties sales and rents were obtained from leading reputable Estate Agents firms in Nairobi and from the Nairobi Lands Registry records. To avoid the problem of under declaration of sale prices, the sales adopted were mainly those that were entered together with a charge on the same date. This is an indication that a financial

institution was involved in the transaction and there are hardly under declarations in such instances.

4.2 EXISTING AND EMERGING FINANCING STRATEGIES IN THE RESIDENTIAL MORTGAGE MARKET.

The strategies of the traditional mortgage financing companies are discussed first and then followed by those of the two new entrants in end financing.

4.2.1 Housing Finance Company of Kenya Ltd. (HFCK) Financing Strategy

Presently, HFCK Ltd. has adopted two housing financing strategies. One of them can be referred to as the traditional strategy while the other one is a new strategy to counter its competitors who are offering low interest rates.

The features of the traditional strategy are as outlined in the general loan conditions for urban residential properties, which are tabulated in comparative form below (see table 4.1). The company has over the years offered Adjustable Rate Mortgages (ARMs) at generally two rates, one which is usually lower for owner-occupier residences and the other for let out properties (also referred to as commercial) at about 3% points above the former.

The bank over the years has relied on in house valuations for lending and the borrowers meets the fees. Valuations are conducted even for identical houses developed by its subsidiary KBS Ltd. The valuation fee is slightly over 0.25% of the property's market value. The company usually finances up to 80% of the LTV of a property with loan spread over a maximum of 25 years under the traditional financing strategy. In the past, an applicant's maximum advance has been the gross income of 36 months subject to the maximum loan set for individuals or whichever is lower. Recently, the company has started to assess applicants based on their disposable income and the loan should not exceed 2.5 times this income.

Emerging financing strategy. In order to make the houses developed by its subsidiary KBS Ltd attractive to buyers, HFCK Ltd has in the past financed such houses for up

to 90% of the sale price. The Valuers have also treated this price as the market value. It has been difficult to determine whether it is the value or the price, which is arrived at first. In the year, 2000 HFCK Ltd adopted a marketing strategy to finance its subsidiary's houses in Komarock Phase IV Estate. It made an offer of an interest rate of 9.9% to the purchasers for the first 2 years after which it will revert to market rates. There are no valuation charges levied to the purchasers. This is currently the lowest commercial residential lending rate in the market and is the lowest ever for over the last twenty years of HFCK's lending. It is only comparable to the company's 1976 lending rate of 8.5% for owner occupied houses. The other conditions of the loan remain similar to those of the traditional strategy. The unsold houses at the time of this soft loan offer were about 150 units. After the offer, most units were sold and by August 2001, only about 25 units were unsold.

The "teaser" rate offered or the low interest rate a sales gimmick appears not to have gone well with the purchasers compared to the NBK's, finance offer of 10% interest rate offered to the purchasers of Saika Estate. NBK experienced an over subscription for the Saika Estate units put up for sale while KBS to date has unsold houses in the subject targeted scheme. The two schemes at the time of offer had a similar number of units.

HFCK is financing Komarock Phase IV up to 90% for the three-bedroom maisonette and 80% for the two bedrooms. It therefore requires a purchaser to pay a higher down payment for the cheaper two-bedroom unit than the purchaser of the more expensive three-bedroom unit. The lower maximum financing for the two-bedroom unit raises questions on the actual worth of the units and whether they were over priced. This could also contribute to the lower demand for the houses compared to those offered for sale by NBK.

Loan management: Following a mortgage delinquency of up to 58% by April 2000, the company created a debt collection unit managed by specially trained staff. The staff have relied on diplomacy and coaxing of the delinquents to keep up with their monthly repayments. The company also started to encourage those in heavy mortgage

arrears to reschedule their debts by extending the repayment periods. Some proposals under the rescheduling do not appear attractive to the borrowers due to the costs involved in rescheduling. Two options of rescheduling are offered:-

- i) Borrowers without large mortgage arrears are requested to pay up to 40% of the arrears and the remaining 60% is capitalised as part of initial loan and a new monthly repayment is worked out. A standing order to transfer the monthly instalments to the loan account must be given by the borrower.
- ii) Borrowers with heavy arrears are advised to apply for the arrears to be capitalised or converted to become part of the loan. This means a new and a bigger advance than the original loan. The borrower has to show the capability of repaying the newly calculated monthly instalments. To reduce the monthly instalments the new loan can have a longer term.

This type of rescheduling is more expensive as it is treated almost like a new advance. The borrower has to be subjected to medical tests and new documentation and registration carried out with their attendant costs.

Loans without arrears attract an interest of 19.9% per annum. For all loans with mortgage arrears and have not been rescheduled, the loan attracts a penalty interest of 4.1% per annum over and above the prevailing interest rate. That is, the interest rate on the loan is 24%. Over and above this high rate for delinquents, all mortgage arrears sums attract a further penalty interest of 1.5% per month.

Due to the high cases of mortgage delinquency and consequent increased cases of foreclosure, HFCK Ltd. has started an in house auction mart to save on the auctioneers' fees which are raised even in the auction is not successful. Properties, which have been foreclosed, are offered for sale with an option for financing the new buyers.

4.2.2 Savings and Loan Kenya Ltd Financing Strategy

This company's mortgage financing strategy is largely similar to the traditional one of HFCK Ltd. It has only one strategy unlike HFCK Ltd, which has adopted a different strategy to encourage sales of its subsidiary's houses. This is possibly an indicator that if HFCK Ltd did not have difficulties in recouping tied down funds in KBS Ltd., it may not have bothered with adopting new financing strategies.

Savings and Loan is currently lending for periods of between 5 and 10 years. This is one of the shortest terms in housing finance among the four institutions. Unlike HFCK, and the others its maximum lending is 70% of LTV for owner occupied houses. The company's current lending rates are 22% for owner occupied houses and 24% for the rest. Unlike HFCK, it relies on private professional Valuers to carry out valuation of properties to be financed. Private Valuers' valuations are not as conservative as those carried out by the in house Valuers of mortgage financing companies and probably the advance on property given by the two institutions on an LTV might end up being similar. This, observation however requires more analysis for it to be conclusive.

For a long time S&L Ltd has not relied on the gross income of a loan applicant but on the disposable income to make an assessment of the borrower. S&L considers an applicant's ability to service a loan based on about 60% of the applicant's disposable income. This income must be equal to or more than the monthly loan repayments.

While the mortgage delinquency figures for Savings and Loan are not readily available indications are that they have been lower than HFCK's which could be explained by the selection of the borrowers. S&L Ltd has not adopted new debt recovery strategies. Unlike HFCK Ltd, S&L Ltd still relies on the old strategies of sending demand letters to recover arrears and heavy reliance on use of auctioneers and lawyers to recover the loan.

4.2.3 National Social Security Fund (NSSF) Financing Strategy

The NSSF entered into end financing in order to dispose the residential and commercial developments it had put up for sale in the market. The units were not selling due to the high costs of finance offered by traditional mortgage finance companies at the time. The main MFC HFCK was lending at 26% for owner occupied houses and 28% for houses let out. NSSF had both houses and vacant plots for sale. The tally of the properties as of year 2001 was slightly different from the figures quoted earlier in the Newsletter for NSSF staff Vol. I No. 7 September 1999.

To attract buyers, NSSF offered the properties to purchasers on a tenant purchase basis. This is whereby the purchaser makes a down payment and thereafter takes possession of the property and pays the balance at an interest rate of 15% over a period of 15 years. Although the purchaser signs the sale agreement, the document is not registered in the lands office. In short, the transfer is not effected until the buyer pays the final loan instalment. This means the legal fees; stamp duty and registration fees are not paid initially thereby reducing the costs of transaction at the onset. In the event of default, the paperwork involved is equally small, as there are no transfers or registrations to be effected since the property is still registered in the name of the vendor. The seller makes a refund of the principle sum paid by the purchaser and thus retains ownership of the property with the option of reselling it. There is no refund for interest paid. This is a departure from the NHC strategy where no refund is made at all in the event of default as all payments made are treated as rent and rent is not refundable which is detrimental to the borrower. Under the NSSF, strategy the purchaser on repossession of the house loses the capital appreciation if any. In a falling market, the losses are minimal.

According to NSSF, only about 1% of the units in Embakasi had been bought cash while another 20 units or approximately 2% were in the process of being bought through end financing offered by other institutions. When NSSF offered to finance buyers up to 90% of the selling price at a fixed interest rate of 15%, the demand was overwhelming and there was over subscription. The rate of interest was similar for both owner-occupier and let out houses. While there is a provision in the sale

agreement that the interest rate could be reviewed, the NSSF is categorical that it intends to charge no more than the 15% interest rate unless very extreme circumstances, which it can not currently foresee, warrant otherwise.

NSSF does not subject applicants of mortgage sums of up to Kshs.2,400,000/- to medical tests. This is due to the fact this body has negotiated with the Group Mortgage Protection Scheme to offer assurance cover for up to the above amount without the need for medical tests.

The interest on the mortgage was determined partly by the Labour Minister's declaration of the return to be paid on pensioners' deposits. This happens to be the source of funds lent out to purchasers or used to put up these estates.

The return on pension deposits over the years has ranged between 13% and 15% according to NSSF. Secondly, the rate for mortgage interest was set taking into consideration returns from investments in the securities markets. The interest rate was also meant to be attractive to the buyers and was expected to be a reasonable rate over the long-term.

The most distinct points of departure in the institution's strategy from the traditional ones were in: -

- i) Ease of entry into mortgage finance by requiring a low down payment or having a high loan to value ratio (LTV).
- ii) Minimal charges related to fees e.g. assessment/appraisal fees. The institution does not charge for valuation fees as it is disposing units that it has developed. It is therefore aware of their worth.
- iii) Almost all legal fees, stamp duty and registration charges will be payable on completion of paying the purchase loan. The cost is deferred.
- iv) Minimal penalties on loan arrears. This is 1.5% per month which works out to Kshs.425/- for a monthly loan repayment of Kshs.28,342/-.

- v) Grace period of 5 days in a month to make payment. The last day of payment is 5th of every month. This allowance enables employees' salaries to clear as a cheque in Kenya takes a minimum of 4 days to clear.
- vi) Counselling mortgage delinquents on how to keep up with monthly payments coupled with maintaining an open door policy to delinquents. There is no bureaucracy in accessing the loan officers, which is characteristic of the established banks.
- vii) Minimal subjection of applicants to medical examinations. This was achieved by setting the minimum advanced sum requiring medical tests quite high.
- viii) Creating certainty in the minds of the borrowers of how much to pay over the loan period. This was attained by having a fixed interest loan and thus fixed repayment instalments. No payment shock.

4.2.4 National Bank of Kenya Ltd (NBK)

National Bank of Kenya Ltd entered into end financing in 1999. Its involvement was as a result of default in loan repayment by the developer of Saika Estate, where it had financed the developer to put up the estate. Its sole purpose of financing the buyers was to recover the money advanced over a long period. The selling price for the units had remained stagnant since 1996 partly due to the prevailing economic conditions and the fact that parts of the estate had incomplete infrastructure for some time.

The company offered an interest rate on the mortgage of 10% to attract purchasers. At the time, the rate was the lowest in the market only comparable to HFCK's rate of 10.5 % in 1980. The impression given in its marketing was that the interest rate was going to be fixed during the period of the loan. The maximum repayment period was 20 years. The effect was a demand, which outstripped the supply by 20% of the 150 remaining units.

However, interest rate on the loan is adjustable. According to the individual purchaser's letter of offer, the company can adjust the interest rate depending on the market interest rates and prevailing economic conditions. Such interest is recoverable without prejudice and no notice of change need be given to the borrowers.

Notwithstanding this provision, the company is going to endeavour to retain the prevailing mortgage rate against the odds.

The company financed the buyer's up to 95% of the sale price. This is one of the highest loan to value ratio in the mortgage finance market. For a house sold at Kshs.1,550,000/- the down payment was Kshs.77,500/-. There are no owner-occupier and commercial rates for residential houses.

National Bank's offer appears to have attracted more attention from buyers. This is possibly due to the unwritten expression that it intended to retain a low mortgage interest rate, which created the impression to potential buyers that the interest rate was fixed. HFCK Ltd exposed its bait by declaring openly that it only intended to maintain the low interest rate of 9.9% for only a short period of 2 years. This appears to have been interpreted by buyers that the company was very keen to push up the interest rate to market rates, which were 10% points higher at the time.

4.2.5 Comparison of Requirements for Qualifying for Financing by the Four Institutions

The four institutions have certain requirements, which have to be met by a borrower before one qualifies for a mortgage. Some are similar while others quite different. A borrower would look at the requirements that are favourable depending on individual circumstances. Some advantages are not readily quantifiable. Generally, the requirements of NSSF and NBK Ltd are the most favourable for an investor who wishes to invest in the two institutions properties. An investor who wishes to invest in another market has to turn to HFCK Ltd or S&L Ltd.

Table 4.1: Mortgage Qualification Requirements by the Financial Institutions.

No.	Condition	HFCK LTD	S&L LTD	NSSF	NBK LTD
1	Mortgage term in years	5 to 25	5 to 10	Upto 15	Up to 20
2	Maximum loan to value ratio (LTV)	80%	70%	90%	95%
3	Loan repayment in equal monthly instalments by:-	Last day of month	30 th day from date of advance. Can be any day of the month.	5th day of next month	Last day of the month
4	Penalty for late payment.	1.50% p.m.	3% Per annum	1.5% p.m.	0%
5	Applicant required to run a savings account with company	Yes	Yes	No	Yes. With funds for 2 months instalments
6a	Maximum advance is upto - times of disposable income (But subject to max. set for individual advances)	2.5	Net amount to be equal to or more than monthly instalment	Net amount to be equal to or more than monthly instalment	Enough family income to repay monthly instalments.
6b	Maximum loan amount to individuals	7,500,000/-	5,000,000/-	9,000,000/-	1,485,000/-
7	Maximum LTV advance for owner occupier house	90% (KBS Houses)	70%	90%	95%
8	Commercial or income generating property maximum advance	2 times annual income	50% of LTV	N/A	N/A
9	Rates for commercial loans are charged over and above owner occupied by	3%	2%	0%	0%
10	Construction loan max. advance	50%	60%	N/A	N/A
	ii) Maximum advance to Limited companies. Repayment term 10 years	15,000,000/-	20,000,000/-	N/A	N/A
	iii) Estate development maximum repayment 10 years	15,000,000/-	50,000,000/-	N/A	N/A
11a	Financing of urban plot purchase (max 1 acre) max. advance of LTV	50%	60% inclusive of construction loan. Tied to loan	90%	N/A (None financed)
b	Maximum amount for plot	1,500,000/-	N/A	3,000,000/-	N/A (None financed)
	Prevailing interest rates				
12a	i) Owner occupier	9.9% Under New Strategy &	22%	15%	10%

No.	Condition	HFCK LTD	S&L LTD	NSSF	NBK LTD
		New Strategy & 19.9% normal			
	ii) Commercial	22.9%	24%	15%	10%
b	Type of interest				
	i) Fluctuating or Adjustable	19.9% adjustable	22% & 24%	N/A	10%
	ii) Fixed	9.9% for 2 years	N/A	15% For 15 Years	N/A
	LOAN PROCESSING FEES				
13a	Application/Appraisal processing fees As a % of total loan	2%	2%	0%	0%
b	Savings deposit interest required at beginning of loan. Equal to how many months instalments	2	1	2	2
14	Legal fees, stamp duty disbursements before release of funds amount to a percentage of loan equal to approx.	10%	10%	0%	10%
15	Cost of loan application forms Kshs.	0	1,000/=	0/=	500/=
16	Monthly Mortgage instalments for repaying a sum of 1,000,000/= for 15 years at each financiers rates	1 7,489/-	19,060/-	13,995/-	10,746/-
	i) Owner occupier	1,748/-	1,905/-	1,400/-	1,075/-
	ii) Commercial	1,905/-	2,136/-	1,400/-	1,075/-
	iii) HFCK 9.9% Komarock	1,069//	N/A	N/A	N/A
	iv) HFCK 24% Accounts With arrears	2,058/-	2,292/-	No rate for default	No rate for default
17	Age limit to qualify for loan	65 years	69 years	65 years	60 years
18	Medical test maximum limit exempting test		1,400,000/-	2,400,000/-	N/A Or > 1,500,000/-
19	Interest rate for staff loans	7%	14%	12%	3% but effective rate 6%

NB. HFCK finances houses developed by its subsidiary KBS Ltd for up to 90% LTV but not for other properties. This gives an edge to its subsidiary's products.

4.3 IMPACTS OF EXISTING AND EMERGING RESIDENTIAL FINANCING STRATEGIES

The impacts are divided into two. These are the effects on affordability of mortgage finance arising from the requirements an applicant is expected to fulfil in order to

qualify for mortgage finance from individual institutions. The other effects are on the residential property returns as mortgage repayments are outgoings, which reduce the net returns both in cash flows and capital appreciation.

4.3.1 Effects on Access and Affordability of Mortgage Finance.

Table 4.2 Tabulates the four companies interest rates over the years, the amounts advanced and the number of people financed in the same years.

Table 4.2: Lending Rates and No. of Applicants Financed

YEAR	COMPANY	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Appro. Annual Lending (Millions Kshs.)	HFCK	549.5	614.2	702.6	829.7	1,139	1,730	2,202	1,851	1,654	801.0	No figures
	S&L (Head office Branch)						770	No figures	363	143	73	No figures
	NSSF									300.0	500.0	200.0
	NBK										70.0	140.0
No of borrowers	HFCK	1,243	787	799	811	930	1,149	1,024	743	712	316	No figures
	S&L						150	208	105	51	41	36
	NSSF									220	888	1,095
	NBK										50	100
Average % lending rates for owner occupier houses	HFCK	18	18	21	26	24	26	26	26	24	26	19.9
	S&L		22	27	30	25	28	26	26	26	24	22
	NSSF									15	15	15
	NBK										10	10
Lending rates for let houses in %	HFCK	18	18	21.5	29	27	29	29	29	27	26	22.9
	S&L		22.5	30	32	28	30	28	28	28	26	24
	NSSF									15	15	15
	NBK										10	10

NB. The figures available for savings and loan are for the head office branch only and the amounts lent comprise 70% residential.

The Nairobi branches of S&L Ltd contributed to approximately 78% of the company's total lending in 1992. Salama branch, which also houses the head office, contributes to the bulk of S&Ls lending. The above figures show a continuous decline, which is a similar trend to that of HFCK Ltd.

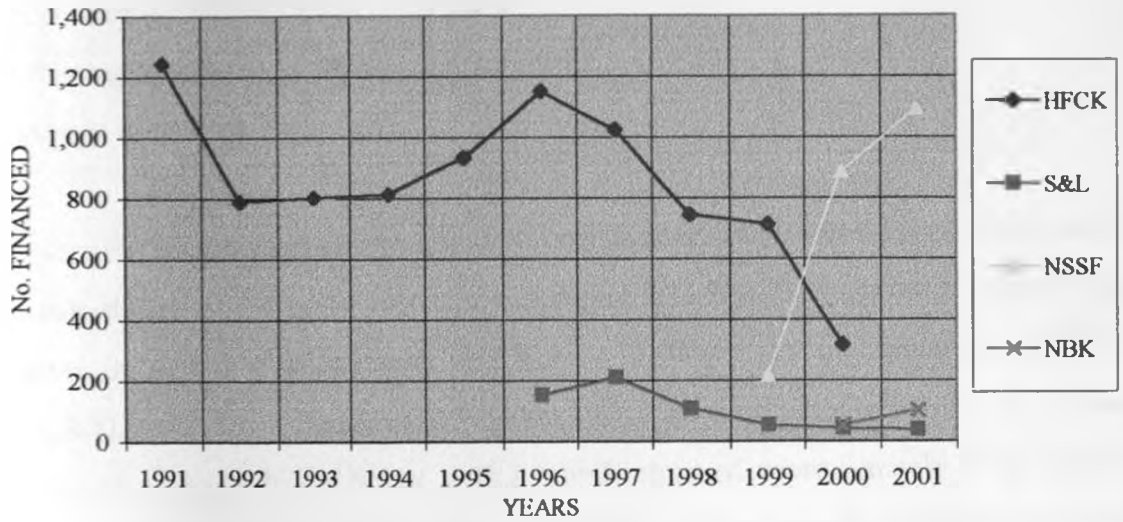
One of the effects of the high costs of borrowing arising from the traditional lending strategies was to attract new end financiers. There had been a decline in lending since

1996 for HFCK Ltd. in terms of the number of applicants financed. The applicants financed in 1996, 1997 and 1998 were 1,149 and 1,024 and 743 respectively. The sums of money lent out in 1998 were the highest in any one single year. Lending in 1998 was higher than in 1996 although the number financed in 1998 was less by 406 borrowers. It would appear that the best measure for demand for mortgages is the number of applicants and not the total sum lent out. The sums lent would appear higher due to inflation or depreciation of the Kenyan shilling in subsequent given years.

New entrants in end financing indicated their cause of entrance into end financing as the inability to sell their developments due to the high costs of borrowing. Their offer of low rates of borrowing appears to have justified their claim as evidenced by the demand of their houses, which out stripped supply. NBK's Saika Estate had an excess demand of 20% while NSSF's Hazina Estate was over-subscribed by about 166%.

NSSF in 1999 financed 220 cases while HFCK Ltd financed 712. In the year 2000 NSSF financed 888 cases and HFCK Ltd 316 cases. NSSF had financed another 1,095 cases by July 2001 while figures for HFCK Ltd were unavailable for the year. The trend was an increase in demand for the emerging financing strategies and a decline for the existing ones. The chart below presents a graphical representation of the demand for the institutions mortgages.

Fig. 4.1: Mortgage demand for individual institutions



The study’s hypothesis states that “the emergence of new mortgage financing strategies in the residential property market has activated demand for mortgage finance”. This hypothesis needs to be tested against demand for mortgage financing for both existing and emerging strategies.

The affordability of the new entrant’s mortgage or end finance to buyers was supported by the demand of their houses that were bought in a short time span. The end financiers indicated that they had not encountered any significant level of default to the extent that they had not even been alarmed by this prospect and hence no need to strategize on solutions. It could, however, be argued that the fact that they had not experienced problems of repayment during the first few years is that delinquency problems appear to arise later when unforeseen circumstances play around the economic base of the borrowers. However, fear of serious mortgage delinquency could be dispelled by the lower monthly repayments of any sum borrowed from the new entrants as opposed to the traditional lenders. The following are the approximate sums payable monthly for an advance of Kshs.1,000,000/- for loan spread over a period of 15 years:-

Table 4.3: Repayments for Kshs. 1,000,000/- at Various Interest Rates

Financier	HFCK	S&L	NSSF	NBK
Interest Rate	19.9%	22%	15%	10%
Monthly repayment (Mortgage constant)	17,489/-	19,060/-	13,995/-	10,746/-

The two new entrants' mortgage constant was significantly lower. HFCK Ltd. with a financing strategy having the lowest interest rate at 9.9% for Komarock Estate Phase IV gave a monthly repayment of Kshs. 12,985/- for an advance equal to Kshs.1,200,000/- for a term of 15 years. This amount was adequate to finance purchase of a two-bedroom house with a rental return of approximately Kshs. 8,000/- per month. This rate after two years, other things being equal, could revert to the company's market rates of 19.9% for owner occupied houses or to 22% for commercial and to 24% in case the borrower falls into arrears. New monthly repayments for approximately Kshs. 1,200,000/- borrowed at each of the above rates would be Kshs.20,976/-, Kshs. 22,860/- and KShs. 24,696/- respectively. This would send repayment shocks to the borrowers. The mortgage ceases to be affordable in the long run if the repayments are very high. Chances of mortgage delinquency increase thus affecting financing sustainability.

The lower rates of interest offered under new strategies increased accessibility to mortgage finance to investors with lower incomes compared to traditional lenders or lending strategies. This was due to the lower mortgage constants. Savings & Loan mortgage constant was even higher due to the short 10-year maximum lending period.

The minimal costs of entering into mortgage also increased accessibility to mortgage finance under the new entrants' strategy. Under NSSF the applicant needed only to pay 10% of the value of the property to be purchased and no extra expense was required until completion of financing when transfer legal fees and stamp duty would be payable. There were no legal, valuation and appraisal fees charged. Below is an example of the requirements of the institutions to borrow and finance purchase of a property worth a sum of Kshs.1,000,000/- over a period of 15 years. The figures are a

close approximation and the assumption is that NSSF and NBK owns the houses on sale.

Table 4.4: Payments Incurred by a Borrower to Qualify for a Mortgage of Kshs. 1,000,000/- Payable Over 15 years.

Institution	HFCK	S&L	NSSF	NBK
Down payment by borrower in Kshs.	200,000	300,000	100,000	50,000
Cost of application form in Kshs.	Nil	1,000	Nil	500
Legal, Valuation stamp duty and registration fees and appraisal fees Kshs.	100,000	100,000	Payable at end of loan	100,000
Deposit in savings account equal to a number of monthly repayments required. Kshs.	17,489 x 2= 34,978/-	19,060 x 1= 19,060/-	13,995 x 2= 27,990/-	10746 x 2= 21,492/-
Total payment required to qualify	334,978/-	420,060/-	127,990/-	171,992/-
Percentage paid upfront of the sums to be borrowed	33.5%	32%	12.8%	17.2%

In conclusion the above findings on the increase in demand for mortgage under the new financing strategies supports the hypothesis that *“The emergence of new mortgage financing strategies in the residential property market has activated demand for mortgage finance”*. The financing of more applicants by the new entrant, NSSF than the leading Mortgage Company HFCK Ltd proves this. The sale and over subscription of residential units that could not previously sell under the traditional financing strategy indicates that under the emerging strategies more residential units can be financed. Consequently the above hypothesis holds and it is therefore accepted.

4.3.2 Effects of the Financing Strategies on Residential Investments Returns.

Financing strategies affect the financial leverage in real estate. An investor uses debt finance with the belief that the rate of return of the property would be higher than the costs of borrowing. To establish the residential property returns in Nairobi, a vertical analysis of sales and rents in *Prudential Estate* was carried out over the period 1991 to 2001. This estate located in Eastlands residential area is a small estate developed in 1988/1989 with about 88 similar residential units. The buildings are four bedrooms

each one of them ensuite and they have a self-contained domestic quarter and a boundary wall. The estate was built with a small shopping centre within and a perimeter wall with the whole estate having one common entrance. This is a sort of a gated community, which is not very common in Eastlands, and had very good design and workmanship and therefore the houses were a class higher than the surroundings. The units were sold for approx. Kshs. 780,000/- on completion.

Vertical Analysis of Sales and Rents

Prudential Estate was chosen due to the similarity of the units, which had not undergone any significant change in deterioration, or improvements as characterised many other estates. Thus generally all market rents barring any other factors are ideally similar. Equally any open market sale reflects the other properties values. However sales data for some years could not be obtained due to absence of transactions especially the first few years 1991 to 1993 due to low sales being one year before and after the Multi party elections and also due to poor record keeping. There were 1999 and 2000 when there were few sales in the market. The data obtained was adequate to set a trend or pattern from which inferences could be drawn. Net rent is arrived at after deducting the operating expenses including voids, which are rare in this particular estate due to its popularity. The average net rental returns for this estate for the seven years using sales, as tabulated -below in Table 4.5- is 7.6%. This compares well with the 7.8% annual average for residential properties in Nairobi over the same period. However contrary to the expectations that the rental return on capital would be higher than the average for horizontal analysis in Nairobi, this is not the case. The reason being that capital appreciation was higher for the period due to demand for purchase of these houses, which was not matched by rental growth. A previous study in Nairobi show that the main contributory factor (over 50%) to a property's value is location and not rent. The average rent for the horizontal analysis could also have been higher due to the inclusion of various types of properties as explained below. These data for horizontal analysis is presented in Table 4.6 on page 85.

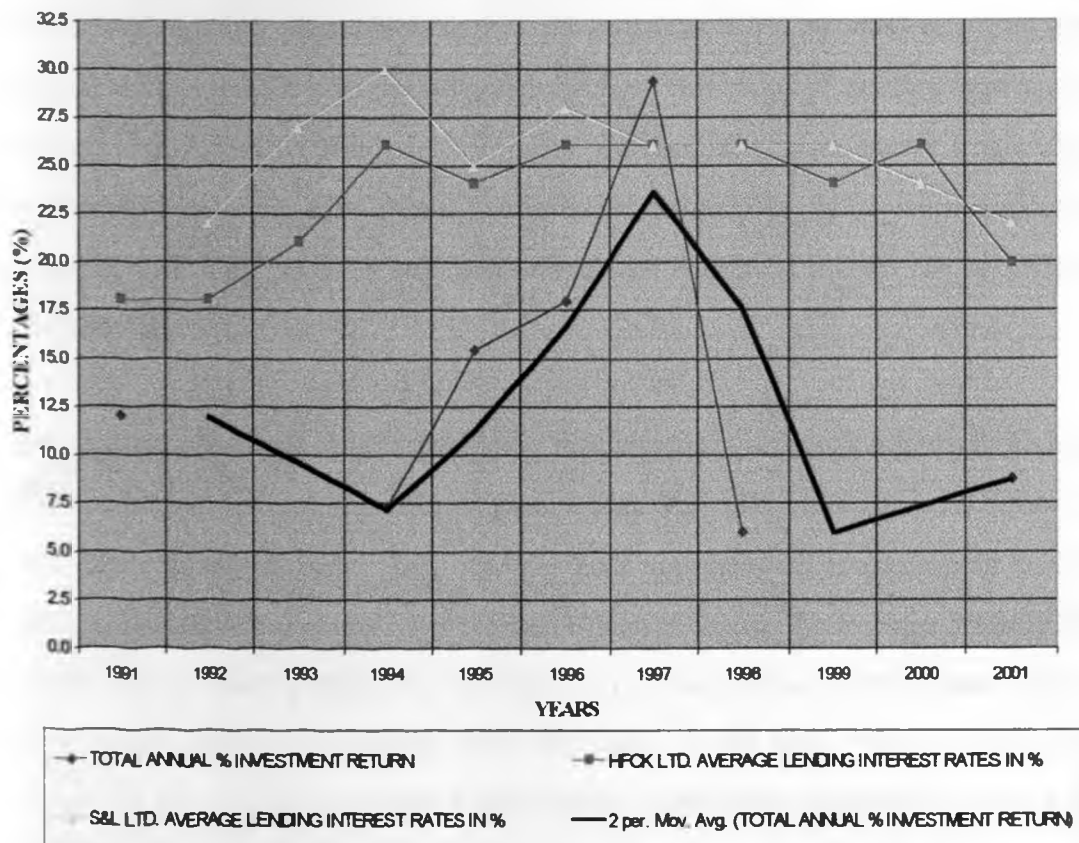
Table 4.5: Vertical Analysis of Sales and Rental Returns of Prudential Estate.

AVERAGE SALES PRICE/NET RENT PER EACH OF THE 10 YEARS

YEAR	APPROX. AVE. SALE PRICE KSHS.	ANNUAL % PRICE GROWTH	RENTAL RETURN PER YEAR	ANNUAL RENTAL GROWTH	ANNUAL % RENTAL RETURN	TOTAL ANNUAL RETURN= RENTAL+ CAPITAL GROWTH	HFCK LENDING RATES %	S&L LTD. LENDING RATES %
1991	800,000		96,000		12.0		18	
1992			108,000	13			18	22
1993			120,000	11			21	27
1994	2,000,000		144,000	20	7.2		26	30
1995	2,175,000	8.8	144,000	0	6.6	15.4	24	25
1996	2,425,000	11.5	156,000	8	6.4	17.9	26	28
1997	3,000,000	23.7	168,000	8	5.6	29.3	26	26
1998	2,987,000	-0.4	192,000	14	6.4	6.0	26	26
1999			216,000	13			24	26
2000			240,000	11			26	24
2001	2,750,000		240,000	0	8.7		19.9	22

NB. The exchange rate of one US Dollar to the Kenya shilling was 27.50/- in 1991 and 79/- in 2001.

Fig. 4.2: 1991- 2001 Percentage Annual Lending Rates /Total Prudential Estate Property Returns



Above is a graphical representation of the relationships in the above Table 4.5. A trend line has been introduced to interpolate the missing points in the total annual return curve. The sales data for the years 1992, 1993, 1999 and 2000. The trend line is the curve in black and is represented in the legend as -2 per. Mov. Avg.

The above is also a graphical representation of the property appreciation over the years. There was an upward trend since 1995, which reached a peak in 1997. There was an increase in inflation during the election year 1997 after which the property market started to experience a down ward trend. The rate of property values growth in 1997 was 23.7% for this particular estate. The total property returns at 29.43% for the year 1997 were higher than the year's lending rates, which stood at 26%. The rental returns for property during this peak did not keep up with the appreciation rate and though they increased marginally the overall return on the value declined to 5.6% compared to the previous year's return of 6.4%.

From the above results it shows that the lending rates were higher than the rate of property returns between 1995 and 1998 except for one year. The decline in property values the following year which registered a -minus 0.4% resulted to plummeting of the total returns to 6.0% being rental return only. This trend of decline appears to have continued, as the next sale of a property in year 2001 was much lower than the previous one of 1998. The rental return grew steadily to 8.7% while lending rates declined to 22% for Savings and Loan for owner occupied houses and to 24% for let properties.

However, over the long run the property returns were good as between 1991 and year 2001 the properties had appreciated from Kshs. 800,000/- to Kshs.2,750,000/- which is an appreciation of Kshs. 2,437,500/-. This appreciation is equivalent to 243.7% averaging to slightly above 13% per year, which is below the average lending rate per annum over the same period. The total property return should also include the average rental return, which on average over the same period was 7.6% per annum. This would give the 10 years average Total Annual Investment Return to be about 20.6%. This return is lower than the ARM lending rates during the investment period thereby

resulting to unfavourable leverage. The low rates of property returns could explain the decline in demand for mortgage financing in the last four years at the prevailing rates offered by HFCK Ltd and S&L Ltd.

Real Rates of Property Returns

NB. If the investment is analysed using real rates by pegging the Kenya shilling to a stable currency like the US Dollar, the seemingly favourable investment returns reflect a different picture. The cost of the property in 1991 at Kshs. 800,000/- was equivalent to \$ 29,090 while the 2001 selling price of Kshs. 2,750,000/- was equal to \$ 34,810. Thus the appreciation over the 10 years in US dollars amounted to \$ 5,720 which was about 19.7% of the purchase price. This capital appreciation was approximately equal to 1.9% per annum.

The annual rental return on capital growth on the other hand when pegged to the dollar was negative. In 1991 the rent was Kshs. 96,000/- p.a. which was equal to \$ 3,491 while in 2001 it was equal to Kshs. 240,000/- p.a. equivalent then to \$ 3,038. Thus in real terms the annual rental return declined by \$ 454 p.a. which was equivalent to 13% decline over a 10 year period. However the annual rental return on capital in the final year pegged to the dollar was approx.8.73%. So on average or during the final year of the investment the total annual property return that is capital appreciation plus net annual rental return was approximately 10.6%. This was a decline in return compared to the first year 1991 when the total return pegged to the dollar was on average 14%.

4.3.3 Residential Horizontal Sales and Rental Analysis within Nairobi

Prudential estate may not be representative of the whole of Nairobi's residential market due to its unique characteristics as a sub market. Therefore to get an average net rental return for the whole residential market, data for sales and rentals over the city was analysed as tabulated below.

For the horizontal analysis of sales and rentals of properties in Nairobi, data on 46 actual property sales with their net rents at the time of sale were collected. Sales data

was obtained from both Nairobi Lands Registry and leading Estate Agents. The average sales and rentals were analysed for the above period and the raw data is attached as Appendix B2. This analysis was for the purposes of getting a weighted mean of various types of residential property prices all over Nairobi. This removed the distortion of returns unique to sub markets. Fewer sales were obtained for the earlier years largely due to poor record keeping from the data sources. The average annual rental return for Nairobi for the ten years was 7.8%. Table 4.6 below is a summary of this data.

Table 4.6: Horizontal Annual Average Percentage Rental Return 1991-2001

YEAR	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	AVER- -AGE
PERCENT- AGE AVERAGE RENTAL RETURNS	12.5	8.9	9.1	8.7	6.4	6.8	6.7	6.2	5.0	7.0	8.1	7.8%

Mortgage repayments are an outgoing in residential investments while the cash flows are comprised of the net rental returns. Depending on the LTV or level of leverage to equity, the mortgage repayments can comprise the biggest outgoing. The relationship of the outgoings and cash flows is a reflection of how soon an investor can recoup his investment. It can also be an indicator or pointer to the likelihood of mortgage delinquency due to the inability of the borrower to rely on the cash flows to meet the loan repayment obligations. Where the cash flows are on average higher than the outgoings, the motivation to redeem the property is higher than where the borrower has to look for extra funds to top up the cash flows in order to meet the mortgage repayments obligations.

A high LTV in a falling market can result to the property value falling below the outstanding principal balance of the mortgage. This coupled with negative cash flows tends to increase the mortgage delinquency as the investor has definitely lost a big percentage of the equity in this downward cycle. Where the LTV is low, the borrower still retains some positive equity in the investment in a downward cycle and is thus motivated to hold onto the asset. Thus the structure of the mortgage on the LTV and

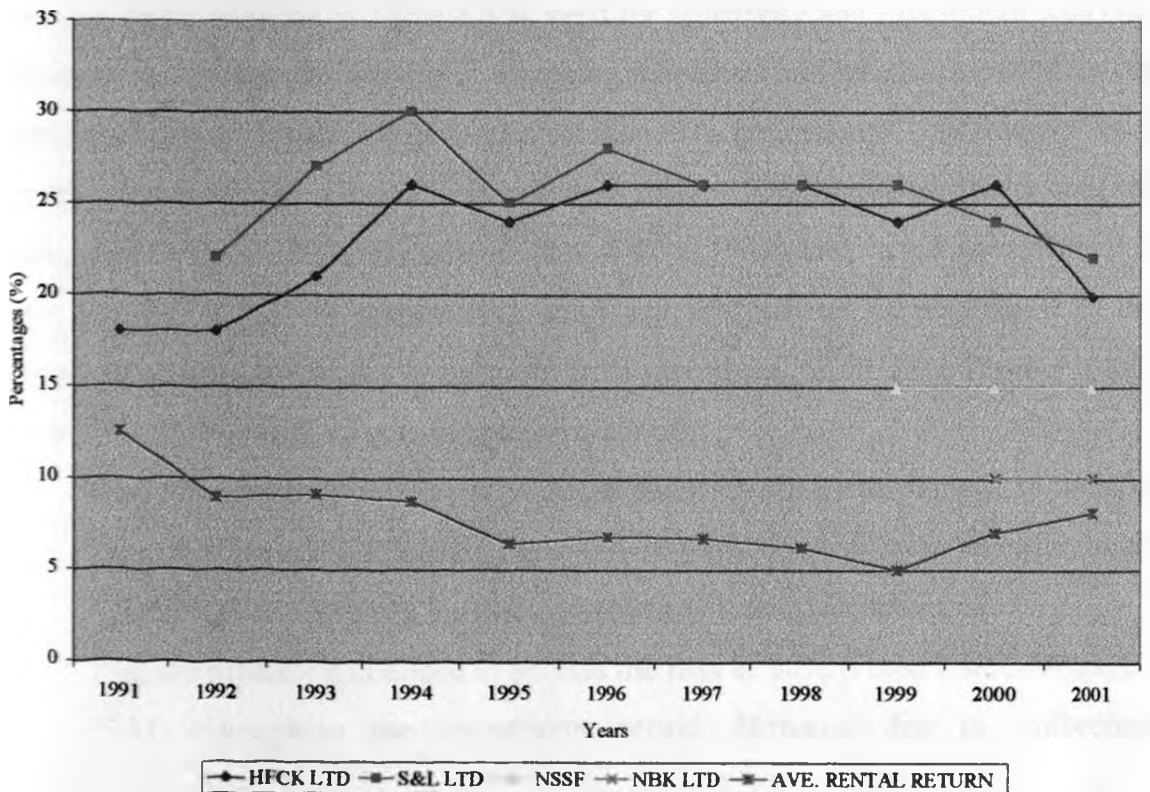
cash flow versus outflows determines the borrowers ability to recoup losses during the downward cycle. None of the four lenders appears to fulfil this important cash flow position for new entrants when cash outflows are compared with cash inflows. However new entrants in end finance come closer to fulfilling it as represented in Fig. 4.3.

Table 4.7: Lending Interest Rate (%) for Owner Occupied Residential Houses and Rental Returns

COMPANY	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
HFCK LTD	18	18	21	26	24	26	26	26	24	26	19.9
S&L LTD		22	27	30	25	28	26	26	26	24	22
NSSF									15	15	15
NBK LTD										10	10
AVERAGE NAIROBI. RENTAL RETURN	12.5	8.9	9.1	8.7	6.4	6.8	6.7	6.2	5.0	7.0	8.1

The above table is used to compile the graph below to give a visual representation of the relationship between the rent cash flows and mortgage repayments or outgoings.

Fig. 4 3: Lending Rates & Rental Returns (%) in Nairobi.



The average rental return for the properties over eleven years is 7.7%. The average for seven years for prudential estate when there were sales is approximately 7.6% which compares well. The above weighted rental average is higher than the Prudential one (vertical analysis) due to the horizontal sales and rental data set being composed of apartments and down market properties, which tend to have higher rents compared to their exchange value. The decline in rental return in 1998/9 was due to a sudden increase in property prices not followed by an increase in rent.

The difference between the lending rates or mortgage repayments with cash flows is very high. It was highest between 1995 and 2000. The gap started to close up when interest rates started falling in year 2000 and rents continued to increase while property values dropped or stagnated. The low rental returns or cash flows, which have been, lower than the mortgage repayments or cash out flows has contributed to mortgage delinquency.

4.4 SENSITIVITY ANALYSIS OF FRM AND ARM MORTGAGES AND EFFECTS ON THE INVESTMENT.

To show the effects of the ARM and FRM mortgage, the Prudential Estate data on sales and rental analysis in Table 4.5 is used for sensitivity and investment analysis. Sensitivity analysis is the process of changing the values and relationships within the problem and observing the effect on the solution. The general aim is to discover how sensitive is the optimal solution to the changes made which in this particular case the change from the initial lending interest rate of 18%. "With two variable problems i.e. those that can be solved graphically, sensitivity analysis can be visualised as the process of altering the angle, or distance from the origin, of the lines on the graph" (Lucey, 1995). The following assumptions are made:-

- i) That the investor's intentions were to invest in the house bought in 1991 at Kshs. 800,000/- for a holding period of 10 years. His equity in the investment was 20% of the property's value equivalent to Kshs. 160,000/-.
- ii) That the investor had hoped to service the loan at 18% (Fixed Rate Mortgage – FRM) throughout the investment period. However due to unforeseen

circumstances the interest on the loan kept on fluctuating as shown in Table 4.8 below under the Adjustable Rate Mortgage(ARM) column.

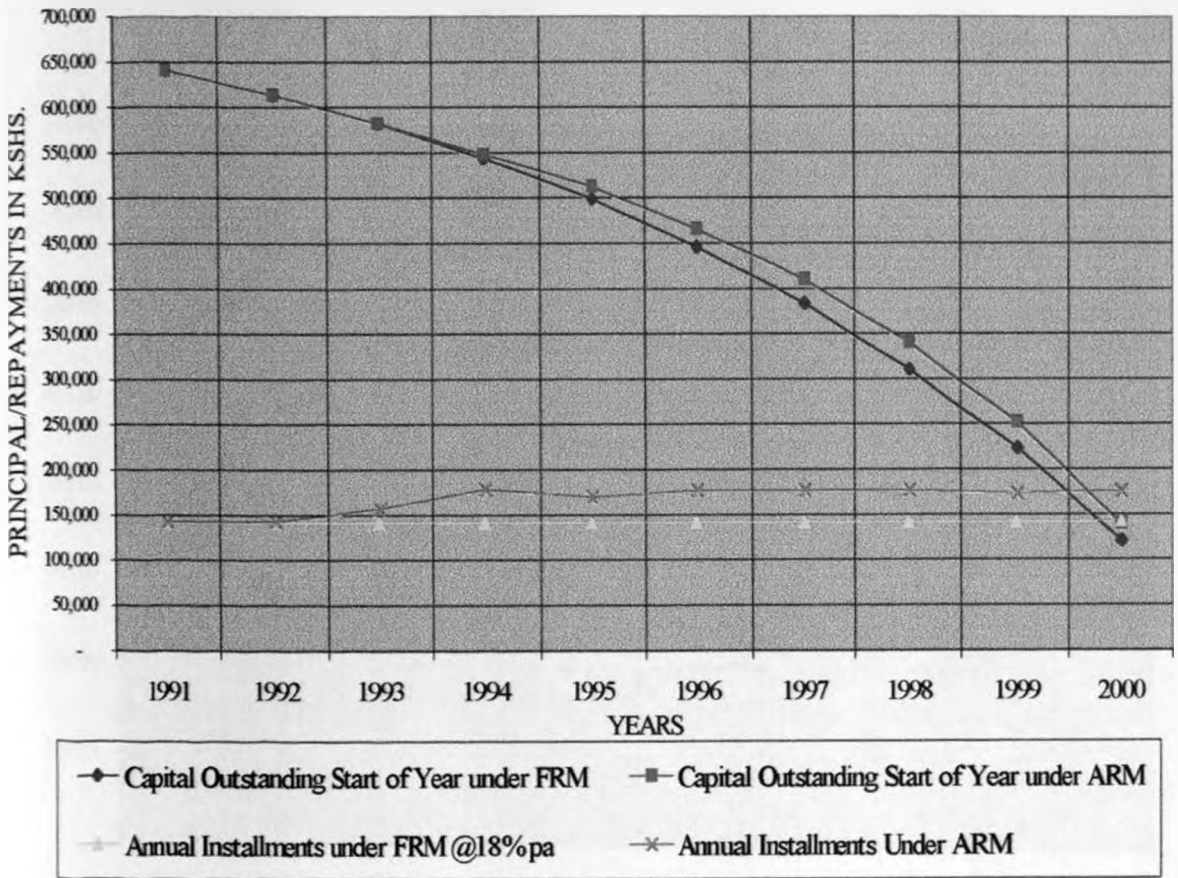
- iii) That there would be a ready at buyer at the end of the 10 years in year 2000 and thus no agency fees was payable. Thus the selling price would be net.

Table 4.8 Sensitivity Analysis of FRM and ARM Based on Prudential Estate Data.

Prudential Estate house mortgage amortised over a period of 10 years for a property bought in 1991 with finance from HFCK LTD. Financing 80% of purchase price								
INPUT DATA								
Purchase price 1991 Kshs.					800,000			
Deposit KShs.					160,000			
Max. Mortgage Advance 80%					640,000			
Repayment Period (Years)					10			
Interest Fixed					18.0%			
Sold property in 2001 Kshs.					2,750,000-			
Year	Capital Outstanding Start of Year under FRM	Capital Outstanding Start of Year under ARM	HFCK Annual Lending Interest Rate %	Annual Instalments under FRM @18% pa	Annual Instalments Under ARM	Annual Interest Paid Under FRM	Annual Interest Paid Under ARM	Capital Repaid p a Under FRM
1991	640,000	640,000	18%	142,409	142,409	115,200	115,200	27,210
1992	612,790	612,791	18%	142,409	142,409	110,302	110,302	32,107
1993	580,683	580,684	21%	142,409	155,864	104,523	121,944	37,886
1994	542,797	546,763	26%	142,409	177,330	97,703	142,158	44,706
1995	498,091	511,592	24%	142,409	169,375	89,656	122,782	52,753
1996	445,338	464,999	26%	142,409	176,465	80,161	120,900	62,248
1997	383,090	409,433	26%	142,409	176,465	68,956	106,453	73,454
1998	309,636	339,420	26%	142,409	176,465	55,734	88,249	86,674
1999	222,962	251,204	24%	142,409	172,434	40,133	60,289	102,277
2000	120,685	139,060	26%	142,409	175,215	21,723	36,155	120,685
2001	-	-	19.9%					-
Totals (Year 2001) in Kshs.				1,424,094	1,664,432	784,093	1,024,432	
Totals (Year 2001) in US Dollars					20,805		12,805	

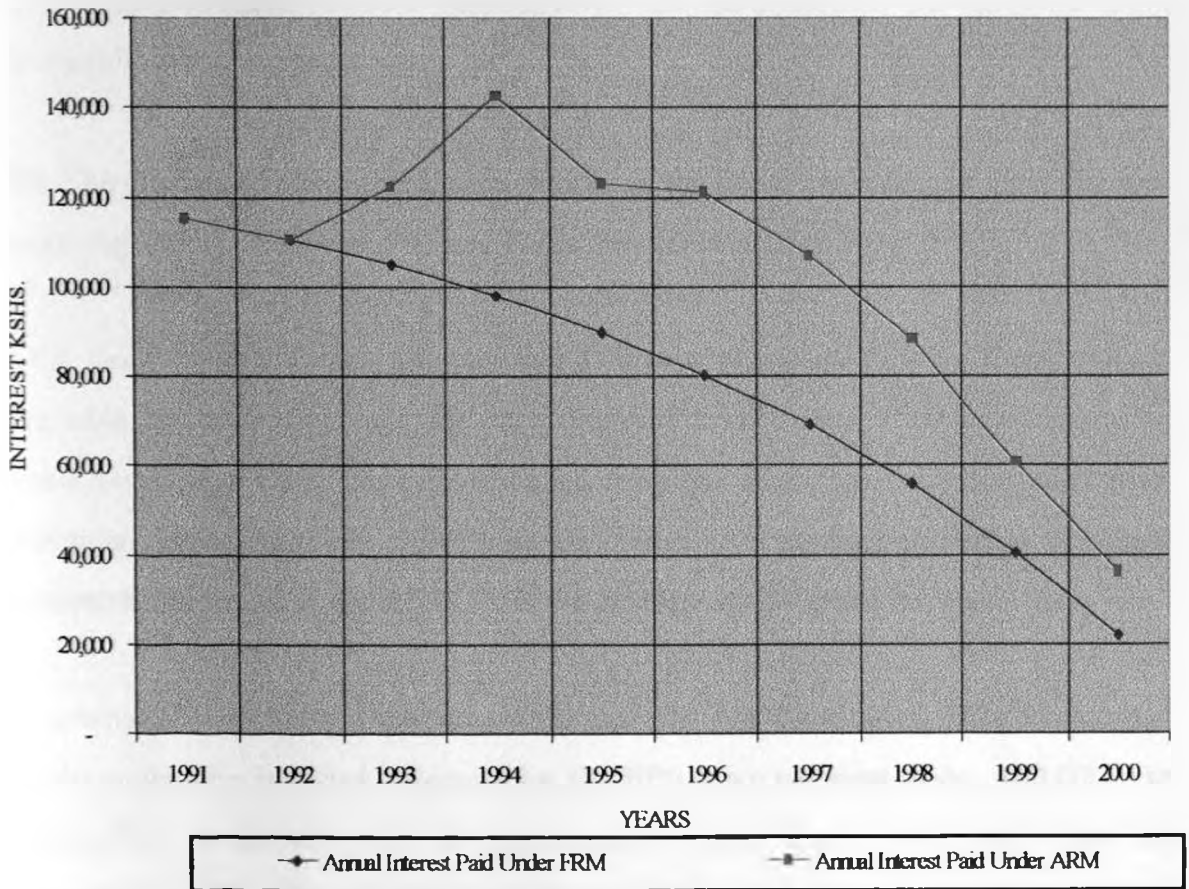
Below is a graphical representation of the sensitivity analysis of Fixed Rate Mortgage and Adjustable Rate Mortgages based on the prudential data presented in Table 4.8.

Fig. 4.4: Mortgage Repayments under FRM and ARM Showing Outstanding Loan



Below in Fig. 4.5 is a representation of the annual interest repayments under FRM at 18% interest rate throughout the loan term compared with the repayments under ARM at variable interest rates. The graph is made from data in the above Table 4.8. Analysis and interpretation of the two graphs is carried out below.

Fig.4.5: Annual Interest Repayments under FRM and ARM



4.4.1. Interpretation of Results

From the table the annual repayments increased once the interest increased from 18% in 1993 until the mortgage was amortised at the end of year 2000. The Increased interest rate increased the outstanding principal sum and effectively pushes the its curve outwards far from the origin thereby altering the curve’s angle. The final mortgage instalment under ARM is composed of more principal at Kshs. 139,060/- than under the FRM, which was Kshs. 120,685/-. This means that under ARM, if the investor chose to repay the outstanding loan at any one time before the end of the term, the principal payable would have been higher than amount payable under FRM.

The curve for repayment of interest under ARM shifts upwards from the X axis after the third year (1993) when the interest changed to 21%. The ARM repayment curve shifts further from the origin. The total interest paid under ARM which is the area under the curve is higher than interest paid under FRM as the figures are Kshs. 1,024,432/- and Kshs. 784,093/- respectively. It can be concluded that the ARM is not favourable to the borrower.

NB. The exchange rate of the Kenya shilling to the dollar according to the CBK was on average Kshs.27.50/- in 1991 and Kshs. 79/- in December 2000.

4.4.2 Investment's Return Analysis and Effects of Mortgage Type on Cash Flows.

The table has annual average TB rates obtained from Central Bank of Kenya. The rental returns and cash flows are obtained from the above table 4.7 compiled from Prudential Estate data. Net cash flows are obtained by subtracting annual mortgage instalments under FRM and ARM from the average annual rental returns.

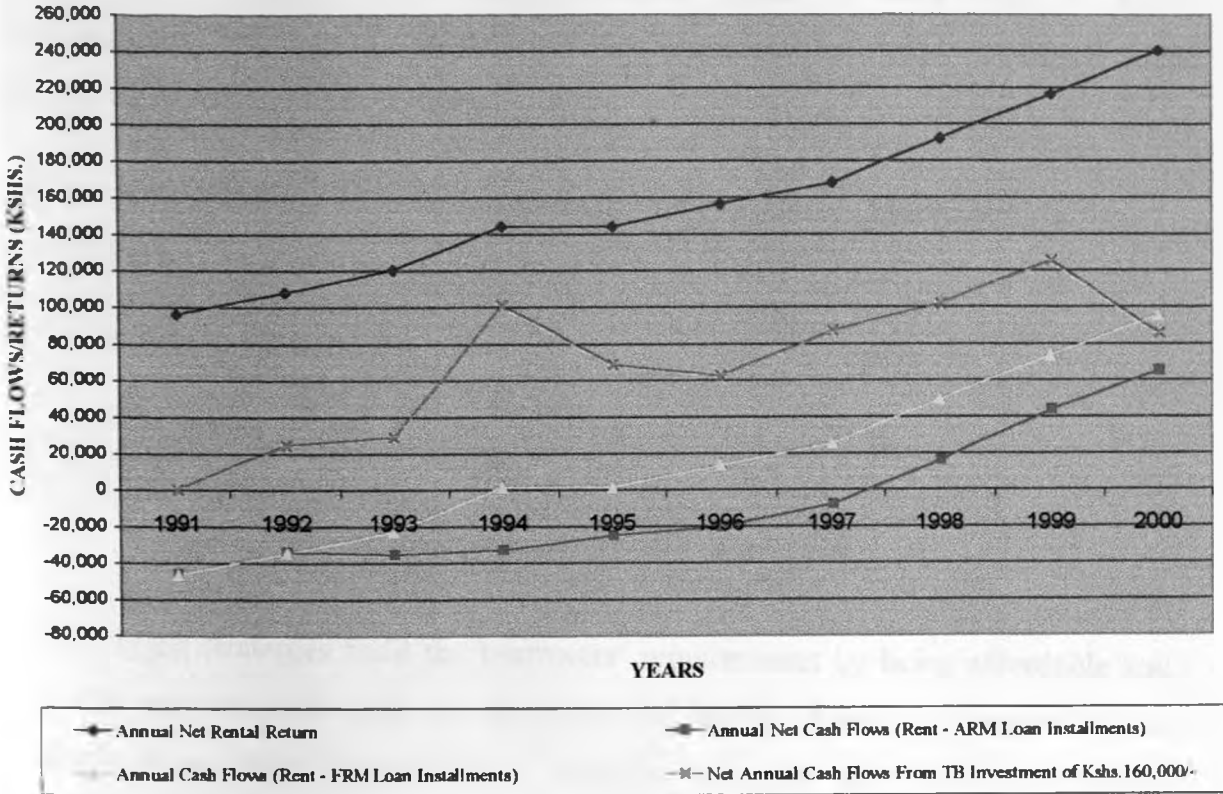
To compare the alternative investment the investor may have opted for, it is assumed that he could have invested his equity i.e. the 20% down payment (Kshs. 160,000/-) in a risk free investment with no management costs. This would have been an investment in TB at the prevailing annual rates. It is assumed that the net return would be back ploughed or reinvested in TB in subsequent years for the same period as the residential investment. Returns from TBs attract a tax of 15% deductible from source before reinvestment. The net return on the TB investment after 10 years is Kshs. 682,808/-. This is a growth of 426% over the ten years. This investment has an annual net return of about 15.5%. This can be compared with the return of the above Prudential Estate residential investment, which had total annual return of 20.6%. However it should be borne in mind that the TB investment is risk free, has no management costs and unlike real estate it is easier to divest at virtually no costs.

Table 4.9: Comparison of Residential and TB Investments Returns.

Year	Average Annual TB Rates %	Annual Net Rental Return	Annual Net Cash Flows (Rent - ARM Loan Installments)	Annual Cash Flows (Rent - FRM Loan Installments)	Investment Growth of 20% Down Payment (160,000/-) at TB Rates Backploughed less 15% Tax	Net Annual Cash Flows From TB Investment of Kshs. 160,000/-	Opportunity Cost of Net cash flows Under ARM is Net Return at TB Rates
1991	17.90%	96,000	-46,409	-46,409	160,000	-	
1992	18.15%	108,000	-34,409	-34,409	184,344	24,344	7,177
1993	55.73%	120,000	-35,864	-22,409	212,784	28,440	18,239
1994	25.61%	144,000	-33,330	1,591	313,580	100,797	6,187
1995	19.09%	144,000	-25,375	1,591	381,842	68,262	5,082
1996	23.00%	156,000	-20,465	13,591	443,802	61,960	5,110
1997	22.49%	168,000	-8,465	25,591	530,565	86,763	3,897
1998	23.32%	192,000	15,535	49,591	631,990	101,425	1,688
1999	13.29%	216,000	43,566	73,591	757,264	125,273	- 1,521
2000	12.07%	240,000	64,785	95,591	842,808	85,544	- 4,390
Totals Kshs.			-80,431	157,910		682,808	41,469

Below is a graphical representation of cash flows under FRM and ARM mortgage repayments. The net flows are calculated by subtracting the rent receivable from annual mortgage instalments. The cash flows under FRM become positive in the fourth year while the cash flows from ARM become positive in the seventh year. This shows how sensitive the cash flows are under the two forms of mortgages. ARM pushes the cash flow curve below the X axis for a longer period while FRM pushes the curve above the X axis earlier guaranteeing a higher return and chance to recoup the investment.

Fig 4 6: Cash Flows under FRM, ARM and Returns from Alternative TB Investment



TB investment has no initial costs to be incurred unlike in real estate. These costs are professional fees like valuation, legal fees, management fees, bank appraisal fees, conveyancing charges, stamp duty and estate agents commission. The tax on interest earned is lower than income tax on rents, which can attract a rate of 32.5%. Other taxes include VAT as from September 2001, which though payable by the tenant increases the costs of management. Risks of poor management and voids in the rentals are characteristic in real estate yet absent in TBs investment. The difference in the total returns can be explained by the various risks outlined above.

4.5 COMPARISON OF MORTGAGE FINANCING STRATEGIES WITH REQUIREMENTS OF A CONCEPTUAL MODEL

An equitable and sustainable mortgage financing strategy should meet the following four criteria of a sound financing strategy as discussed in chapter 2. The four requirements are:- (1) The risks to the lender/investor, (2) The risks to the borrower, (3) Affordability and (4) Simplicity.

The four end financiers mortgage financing strategies do not meet all the above mentioned criterions. The emerging strategies appear to meet most of these requirements. Below is a tabulation, which displays the extent to which each individual lender attains the criteria.

Table 4.10: Institutions Score on Requirements for Sustainable Mortgage Criteria

	Criteria	HFCK	S&L	NSSF	NBK
1	The risks to the lender	Yes	Yes	Partly	Yes
2	The risks to the borrower	No	No	Yes	Partly
3	Affordability	No	No	Yes	Yes
4	Simplicity	Partly	Partly	Yes	Yes

Rating:-Yes – Indicates that to a large extent this criterion is met.

No – Indicates that largely the criterion is no met.

Partly – Indicates the criterion is halfway met.

The emerging strategies fulfil the borrowers' requirements by being affordable and generally easy to understand, as the terms are simple. This is evidenced by the tabulated comparative requirements. However they do not meet the lenders requirement. The low rates of interest charged given the source of their funds and the return expected may not be sustainable. NBK Ltd lending at 10% while it has borrowed funds from EADB at 10.5% does not look economically viable so this is not sustainable. On the other hand NSSF's funds according to the minister's declaration are expected to have a return equal to the interest rate charged on their end finance. This does not leave room for operational costs and profits. It is therefore not sustainable, as it does not meet the lender's constraints.

The two entrants into end financing NSSF and NBK Ltd mortgage is not assumable or transferable to a second buyer. NSSF in the event of default repossess the house and refunds the principal sum paid only to finance the next purchaser instead of allowing the original buyer to transfer the property and cash in on the capital appreciation. The two institutions had no intentions of financing further developments so their lending is not sustainable. They also do not finance purchasers of other properties other than their developments.

HFCK and S&L have in the past taken care of their requirements by securing low funding at as low as 4% to lend at 26% thereby making immense profits. This is at the expense of the borrower who can ill afford to pay such high rates while the returns from the investments especially the cash flows (rent) is very low. This leads to foreclosure. There is however a danger from the source of this funds lent out. The financiers borrow short to lend long and in the event the depositors withdraw their funds, or there is competition for this funds, the same would be withdrawn causing disastrous effects on the lenders. The alternative is the lenders to offer higher returns on the deposits to retain them which in turn would be passed on to the borrower with the unpleasant results. The lending at 9.9% by HFCK raises the question whether if as the institutions have indicated that they lend at high costs due to the costs of funds, who meets the difference? Since the bank must make a profit and meet all its costs, then this cost must be passed to someone and one wonders whether some borrowers are subsidising others.

The long-term solution to these problems is largely related to funding and regulatory mechanism. The lenders do not seem to be keen at all to pass on the benefits of low cost of funds to the borrower. They are interested in outdoing each other in profit maximisation. The management strategy appears to benefit the institution and staff by offering themselves soft loans in some cases even below the deposit rates which cost is definitely passed on to the borrower. Awarding staff such lower rates is also an indicator that the financiers cannot buy what they offer in the open market. This is an indicator of lack of faith in their products. To create certainty in the source of funds, the only feasible alternative is to borrow long and lend long. The Secondary Mortgage Market offers this certainty.

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

5.1 CONCLUSIONS

Financing is the major part of real estate investment. It has been observed that it is not the availability of cheap debt financing that is really important but it is the gains available to creative investors who know how to structure debt and equity financing packages to solve problems. However, excessively high cost of financing affects even the very best in structuring debt and equity. End financiers in Kenya are the key institutions that largely affect real estate investments and both investors and real estate investment consultants need to keep watch on the activities of these institutions.

The Kenyan Government appears to have neglected its role of regulation of financial sector all in the name of financial liberalisation. Regulatory role in emerging markets cannot be privatised nor should it be left to evolve without the state's intervention. There is need for the state to create the necessary institutions and to enact the relevant legislation for these institutions to operate in order to stabilise financing in residential housing sector. This is necessary because housing is not only an investment but is also a social good and a basic human right. This can not therefore be left at the hands of the private sector whose main drive is profit maximisation without necessarily having due regard to social costs. Stabilising the housing finance is the government's responsibility. An active and efficient real estate market is key to stimulating an economy faced by a downward trend like the Kenyan one.

The hue and cry by financial institutions in residential lending that they have forward commitments with their source of finance does not totally hold. Their borrowings span within 3 months and they rely heavily on deposits, which they pay very low interest to the depositors. The new Central Bank of Kenya –Amendment- Act (Donde Bill) to regulate interest rates by pegging them 4% above the 91 days TB rates cannot be the cause of low profitability by the financial institutions. Poor performance by the institutions had been experienced earlier as evidenced by performance of their shares

in the Nairobi Stock Exchange and their annual accounts over the last few years which reflected poor profitability notwithstanding the high interest charged on loans.

The existing actors in mortgage financing like HFCK Ltd which was incorporated as the national mortgage institution and licensed to mobilise savings for home ownership has failed to do so. An Act of parliament was enacted to enable it operate smoothly. The interest rate spread between its deposits and lending rates in the 1990s is a clear indication that it is more interested in profit maximisation and not attainment of the original goals. So in castigating the Government for its failure in regulatory responsibility, these licensed institutions should not be spared criticism. The institutions have failed to exercise corporate responsibility in their business undertaking and are only responsive to change when their position is threatened. The mortgage financing companies in the 1990s played a greater role in impoverishing their customers by pushing them to foreclosure as opposed to increasing their rate of wealth creation.

Housing mortgage financing sector should not be tied together with the commercial banking sector and thus there is need for separate legislations to govern each of the two. This could enable the development of mortgage market instruments, which cannot be developed under the existing legislation of the Banking Act Cap 488.

For Secondary Mortgage Markets to emerge, the Kenyan government should take the first initiatives like the USA government did by putting the regulatory framework in place. These markets success is evidenced by the financing stability experienced in the countries which have put them in place as evidenced in Malaysia and USA. The lower interest rates offered by South African Home loan is proof enough that this form financing can be introduced in Kenya.

The low returns on residential property investments in terms of rent appear to have an impact on the ability to finance an investment and to keep up with the monthly mortgage repayments. While the total returns on the property have been high and in the past they have exceeded the interest on loan, the biggest percentage of these

returns are tied up in capital appreciation. This means that an investor can only draw or get this return after selling the property to recoup the investment. The appreciation is tied down and cannot assist in the redemption of a loan. This scenario has impacted negatively on affordability of housing finance and needs to be studied and addressed further.

The high costs of borrowing contributed to the decline in demand for mortgage as evidenced by the declining demand figures of the traditional lenders. There is still a strong demand for mortgage finance if it is fairly priced. This is shown by the increase in demand for the NSSF financing while the HFCK Ltd financing demand is on the decline. The repayment of the principle sum many times over in form of interest during the lifetime of the mortgage discourages borrowing. Investors opt to save and construct houses at their own pace without resorting to mortgages. The mushrooming residential estates in Nairobi some without services is evidence of this.

In Kenya there is need to develop equitable and sustainable mortgage financing strategies in order to encourage investments in residential investments. This would help to increase the existing housing stock, which has always been low. Housing other than being an investment is also a basic human need and its importance can not be over emphasised.

5.2 RECOMMENDATIONS

Economists, financial experts and policy makers believe that what is good for the housing sector can be good for the whole economy. A sustainable mortgage financing system, which is broadly accessible and serves the needs of the consumers at market prices should be put in place in the Kenyan residential housing financing sector.

5.2.1 Recommendations on Equitable and Sustainable Mortgage Financing Strategies

The last objective of this study was to recommend an equitable and sustainable mortgage financing strategy in residential property investments. This could only be achieved after analysing the local financing strategies, which was achieved in Chapter 4. The strategies' strengths and their shortcomings were determined. In recommending a financing system, the Kenyan economic conditions, financial

institutional set up and legal framework examined in chapter 3 are taken into account. In designing the financing system, account is taken of experiences from other countries, which have had similar situations to Kenya's as discussed in Chapter 1. Below are recommendations geared towards attainment of the above objective among others:-

i) Equitable and Sustainable Mortgage Financing Strategy in the Kenyan Residential Mortgage Market.

To mitigate on the affordability of mortgage finance and to create certainty in the minds of the investors, a mortgage meeting the four criteria's previously discussed in chapter 4 under sub heading 4.4 should be devised. The basic requirements of such a mortgage are geared towards meeting both the lenders and borrowers constraints. These constraints as discussed earlier are:- (i) the risks to the lender/investor, (ii) the risks to the borrower, (iii) affordability and (iv) simplicity.

Two types of mortgages under controlled conditions or having in-built checks and balances can attain this goal. These are:-

(i) Fixed Rate Mortgages (FRM).

In most stable economies fixed rates are set at a slightly higher rate than variable rates as it has been observed in the long run that interest rates tend to go up. Thus a borrower is willing to lock the rate at a slightly higher rate when borrowing long with the hope future gains in a lower rate when interest rates rise. The lender is also compensated for the future lower rate for having had a head start.

The fixed rate meets the simplicity criteria, as the lender and borrower know there is a constant sum payable. It also fulfils either the first or second criteria depending on the movement or direction of the market interest rates. If the interests do not move at all it would fulfil both criterions but that would call for a perfect situation which does not hold in the normal world. The affordability criteria will only be met if the rates are set low for the borrower to qualify but this could be detrimental to the lender. The borrowers would avoid borrowing when

the interests are high. Therefore there is need to address these uncertain requirements.

For the FRM to meet the above criteria, the risk to the lender is removed by a mechanism of transferring the interest rates fluctuations risks by use of Mortgage Banking Securities (MBS) or operations of a Secondary Mortgage Market. The lender should alternatively avoid relying on funds or short term deposits and source long-term funds e.g. bonds that have a long maturity period and attract a stable interest or return. Thus lender should avoid borrowing short to lend long.

There is need to address the risks to the borrower of market interest rates falling below the fixed rate. This risk would result to borrower paying higher rates than the prevailing market rates. This can be resolved by fixing the rate when the market rates are low or simply to have the rate fixed at fairly low rates below the property returns.

(ii) *The Adjustable Rate Mortgage (ARM)*

For the ARM to be effective it should have various modifications, which would create checks and balances to avoid abuse by the lender. In its simplest form as pointed out earlier, it has disadvantages to the borrower as the lender can whimsically adjust the interest in his favour. The necessary checks to remove the lender and borrower constraints by satisfying the above four requirements are:-

- ❖ *Suitable index.* This should be well known economic measures like a popular Treasury bill of a reasonable length. The assumption here would be that the bill is not highly erratic.
- ❖ *Interest rate caps.* These caps should indicate by how much the interest can be increased above the index. Interest rate caps or limitations puts a ceiling and a floor on the rate of fluctuation of the interest rate applicable. Caps create some certainty by minimising extreme interest rates. In their absence, a borrower can start off paying very low interest, which can double up in a very short period to the

extent of doubling up the monthly repayments. This creates payment shocks to borrowers.

- ❖ *Adjustment steps.* Like other types of variable rates mortgage (from where the ARM evolved), allow the mortgage payments to remain constant but change the maturity of the mortgage to reflect the interest rate change. This would reduce mortgage delinquency due to increased monthly instalments following a higher interest rate not followed by an increase in incomes as is common in Kenya. It would also safe guard the lender from loss of interest following a rise in interest rates. The borrower too would be protected from paying higher interests once the rate declines and although he would continue paying the same instalments, the loan can be amortised over a shorter period. The other advantage is the simplicity, as the instalment would remain constant.
- ❖ *Make the documentation simple and standardised* with room for varying the advanced amount due to the varying sum owed following a change of interest rate.

With the above checks and balances, this type of mortgage would meet all the above four criteria. The mortgage would be appropriate for Kenya at this point in time due to the absence of technical know how, institutional and regulatory framework necessary for accommodating the FRM under Secondary Mortgage Markets.

2) Introduction of Secondary Mortgage Markets (SMM). The Kenyan Government should lay down a framework for introduction of a simple form of Secondary Mortgage Market for residential properties financing like is the case in Malaysia or the USA, where the key actors are Government Sponsored Enterprises (GSE). Since introduction of SMM would take some time, it should be ensured that there is a standardisation in underwriting new mortgage instruments and servicing. This would enable the assessment of the amount of risk in a mortgage loan, which is critical when pooling the mortgages together. The SMM would ensure that mortgages are priced appropriately.

3) New Legislations. Laws should be enacted that govern mortgage financing for residential or home ownership. These enactments or amendments should not be done piece meal but wholesale to avoid lacunas or gaps in law and conflicts with existing laws.

The amendments to the Central Bank Act Cap 482 have various shortcomings particularly on commercial lending. The law would have had fewer problems in its implementation if it were to deal with residential mortgages only.

One of the key weaknesses in the bill is pegging all the lending rates to a 4% point above the Treasury bill rate. This disregards the fact that risk is a reflection of the lending rate. Commercial ventures can be quite risky unlike home ownership lending. The risks involved in residential investments are minimal and controllable.

Due to the abuse of interest rate calculations by MFC, there should be enacted a law equivalent to the United States one known as Truth in Lending Act to protect borrowers. The financiers or lenders should be required to tell the borrower the true Annual Percentage Rate (APR) of interest on the loan and any penalties on late payments. The later should be agreed upon in writing by both parties and should not be fixed unilaterally by the lender, as has been the case in Kenya.

4) Sources of Lending Funds. The reliance of Mortgage Finance Companies (MFCs) on short-term deposits to lend long term creates uncertainty due to the volatility of the market. They should look for long-term sources of funds at low or more stable interest rates. Attempts should be made to design and float a bond in the capital markets pegged to a stable instrument or index. Attempts by the MFCs to pay very low rates for deposits and lend at high interests are not a solution to the existing problems but only serves to aggravate the situation.

5). Role of state related Institutions. Institutions like NSSF have invested heavily in real estate. As of 1996 NSSF had about 17 billion shillings in real estate while up to about 70% of its funds in year 2001 was tied up in real estate. The fund together with

other pension funds are now required to hold no more than 30%, of their funds in real estate investments. The NSSF should consider investing more in long-term housing bonds in institutions to help stabilise the interest rates, which affect their members. The institution should also reduce investments in commercial real estate and give more support to the residential sector, which would benefit its members more directly. Securitisation of its illiquid assets would release the tied up funds. Therefore NSSF should be in the forefront of lobbying for the emergence of Secondary Mortgage Markets.

6). *Mortgage Payers Association.* In Kenya there is a tendency for positive change to come from organised public or consumer pressure. This arises in matters related to Government, Local authorities and private sector due to lack of institutional and corporate responsibility. In the absence of such pressure or threats, even in the very obvious cases where such change is necessary, may never be voluntary forth coming from those concerned. Consequently, for the borrowers as consumers to have a voice there is need to have an umbrella body that articulates and negotiates for suitable terms with the lenders and service providers like ICRAC. Banks have an umbrella body the Kenya Bankers Association, which filed a case to oppose regulation of interest rates under the Central Bank Amendment Act 2001. An association for mortgage payers can be enjoined in such a suit. The Kenya Consumers Association does not appear to be active on similar issues.

7) *Increasing the Maturity of Government Debt.*

In 1994 the government in its Open Market Operations (OMO) had introduced short term TBs of 30 days and below. Today there is a popular 91 days TB and another of 180 days. These TBs encourage speculation and most investors including banks prefer them due to the uncertainty of the direction of interest rates in the long run. In Kenya, it is hard to predict the inflation and interest rates even over very short periods. About 75% of the government debt is held in TBs which have to be refinanced over very short periods of time.

The government should shift its financing from Treasury Bills to use of long-term instruments like Treasury Bonds. In the USA, there are long-term bonds of up to 30 years while in Kenya the longest bond is for 5 years. Long-term Treasury Bonds helps to establish a yield curve that investors can use to determine future expectations about inflation and therefore create certainty in decision making. It is a commitment of the government to keep inflation down and it creates certainty in lending and borrowing.

5.2.2 Recommended Areas of Further Study.

Due to time constraints, the scope of study was limited and the sample of data on sales and rentals was not sizeable. Data on these two parameters for the years 1991 to 1995 was not readily available from estate agents due to poor data management, which characterised those years before the personal computers became popular. The data on mortgage delinquency and in some cases on the number of applicants was also not readily available from the financial institutions.

There is need for further research in the following areas:-

- ◆ The factors that influence residential investments in Kenya using mortgage finance given its high costs and its seemingly low returns. The study could delve into the actual value of residential properties and whether their prices have been higher than their value.
- ◆ The causes of high rate of residential property appreciation that exceeds the rental growth or returns in Nairobi.
- ◆ The true or real rate of residential property returns and lending rates over the last 10 years when the rates of inflation were very high. This study has largely used nominal rates.
- ◆ Real estate returns compared with other investments.
- ◆ The emerging trends of property ownership among the young generation.

BIBLIOGRAPHY

1. Akinleye J. O. O. (1994) Assessment of the Scope for Expanding Primary Mortgage Markets in Africa In: Proceedings of the Symposium on Secondary Mortgage Markets in Africa, 25th May, Abuja Nigeria pp. 8-13.
2. Ayogu M. D. (1995) Structuring a Market Oriented Housing Finance System in Africa. A research report prepared for Shelter-Afrique.
3. Ayogu M. D. (1994) Establishing Secondary Mortgage Markets: Half Way to Affordable Housing. In: Proceedings of the Symposium on Secondary Mortgage Markets in Africa, 25th May, Abuja Nigeria pp.5-8.
4. Ball M. (1990) Under One Roof: Retail Banking and the International Mortgage Finance Revolution. London Harvester Wheatsheaf.
5. Baum A. et al (1997) The Income Approach to Property Valuation, 4th edition London, International Thomson Business Press.
6. Cagamas Interest Rates <http://www.cagamas.com.my/> (11th July 2001).
7. Chiquier L. (1997) Alternative Mortgage Products: Designs and Risks. Regional Seminar on Maintaining Sustainable Mortgage Finance Schemes in Africa, December 1st –5th, Accra, Ghana.
8. Diamond D. B. (1997a) Public/Private Partnerships in Housing Finance. Regional Seminar on Maintaining Sustainable Mortgage Finance Schemes in Africa, December 1st –5th, Accra, Ghana.
9. Diamond D. B. (1997b) Overview of Housing Finance Instruments. Regional Seminar on Maintaining Sustainable Mortgage Finance Schemes in Africa, December 1st –5th, Accra, Ghana.

10. Diamond D. B. & Lea M. J. (1995) Sustainable Financing for Housing: A Contribution to Habitat II. Working Paper for Fannie Mae Office of Housing Research
11. Diaz-Alejandro, C. (1985) "Goodbye Financial Repression, Hello Financial Crash" Journal of Development Economics.
12. Fannie Mae Mortgage Backed Securities
http://www.fanniemae.com/markets/mbssecurities/product_info/mbs/mbs.html.
(15th August 2001).
13. Freddie Mac Reports on Mortgages <http://www.freddiemac.com/corporate/reports/>
(15th July 2001).
14. Fry M. (1995) Money, Interest and banking in Economic Development. 2nd edition. Johns Hopkins University.
15. Ho T. S. Y. and Saunders A. (1981) The Determinants of Bank Interest Margin: Theory and Empirical Evidence. Journal of Financial and Qualitative Analysis XVI(4)
16. Green C. J. (2001) Bank Capital Adequacy, Endemic Bad Debts and the Determination of Interest Rates. International Conference on Finance and Development: Evidence & Policy Issues hosted by KIPRA and the DFID-funded Research Programme on Finance & Development, 10-11th July, Nairobi, Kenya.
17. Government of Kenya Revised Edition (1991). The Banking Act Chapter 488 of the Laws of Kenya, Government Printer Nairobi.
18. Government of Kenya The Kenya Gazette Supplement No. 62 of 2001. The Central Bank of Kenya (Amendment) Act, 2000. Government Printer, Nairobi.

19. Government of Kenya, (2001), Gazette Supplement No. 62 (Acts No.4), Government Printer Nairobi Kenya.
20. Government of Kenya, The Banking Act 1991 (CAP 488) Laws of Kenya. Government of Kenya
21. Government of Kenya, The Central Bank of Kenya Act 1984 (CAP 491) Laws of Kenya Government of Kenya
22. Government of Kenya, The Mortgages (Special Provisions) Act 1970 (CAP 304) Laws of Kenya.
23. Government of Kenya. The Kenya gazette supplement Central Bank of Kenya (Amendment) Act, 2000 Kenya Government of Kenya
24. HFCK Ltd., (2000) Newsletter for the 4th quarter 2000 and 1st quarter 2001 Vol. 22 No.35, pp. 6, “An article in collection of arrears”, HFCK Ltd., Nairobi.
25. Irwin R. (1992) Tips and Traps When Mortgage Hunting. New York McGraw-Hill, Inc.
26. Jaffe, A. J. & Sirmans, C. F. (1995) Fundamentals of Real Estate Investment. 3rd ed. Upper Saddler River, New Jersey. Prentice Hall.
27. Kagira, B. M. & Kirkpatrick, C (2001) Study on Financial Sector Reform and Regulation in Kenya: Overview of the Kenyan Financial Sector and Recent Policy Reforms. A Paper Presented at: The International Conference on Finance and Development: Evidence and Policy Issues. 10-11 July, Nairobi Kenya.
28. Kirkpatrick, C & Maimbo S.M. (2001) The Implication of the Evolving Microfinance Agenda for Regulatory and Supervisory Policy. A Paper Presented

at: The International Conference on Finance and Development: Evidence and Policy Issues, 10-11 July, Nairobi Kenya.

29. Lucy T. (1995) Quantitative Techniques. 4th ed. The Guernsey Press Co. Ltd, Vale, Guernsey C.I. Great Britain.
30. Mensah S. (1997) The Role of Stock Exchanges and The Capital Markets in Housing Finance. Regional Seminar on Maintaining Sustainable Mortgage Finance Schemes in Africa, December 1st –5th, Accra, Ghana.
31. Moderating The Interest Rates Spread (2000) The Point, Bulletin of The Institute of Economic Affairs, Issue No. 42: December.
32. Montiel, P.J. (1995) Financial Policies and Economic Growth Theory, Evidence and Country-Specific Experience From Sub Saharan Africa. AERC Special Paper, 18th April.
33. Muchiri L.W. (2000) Agricultural Management and Economics Unpublished Teaching Manual University of Nairobi.
34. Murinde V. & Tefula M. (2001) The Participation of Foreign Owned Banks in the Domestic Banking Sector of African Economies. International Conference on Finance and Development: Evidence & Policy Issues hosted by KIPRA and the DFID-funded Research Programme on Finance & Development, 10-11th July, Nairobi, Kenya.
35. Mutero J. (1993) Overview and Analysis of the Kenyan Housing Finance Sector, Report prepared for the Urban and Infrastructure Division Regional Economic Development Services Office for East and Southern Africa USAID, December.

36. Ndungu, N.S. & Kiringai, J.W. (2001) Financial Liberalisation in Kenya: Where are We Now? A Paper Presented at: The International Conference on Finance and Development: Evidence and Policy Issues, 10-11 July, Nairobi Kenya.
37. Ngugi R. W. and Kabubo J. W. (1998). Financial Sector Reforms and Interest Rate Liberalization: The Kenya Experience. AERC Research Paper No. 72 Nairobi, Kenya: African Research Consortium.
38. Njuguna. S. N. (2000), Banking Sector Interest Rate Spread in Kenya. Discussion paper Series March, Kenya Institute for Public Policy Research and Analysis Discussion Paper No. 5.
39. Njuguna. S. N. & Ngugi, R. W, (2000), The Exchange Rate and the Interest Rate Differential in Kenya: A Monetary and Fiscal Policy Dilemma. Discussion paper Series January, Kenya Institute for Public Policy Research and Analysis Discussion Paper No. 1.
40. NSSF (2001) Members' Guide Book
41. NSSF Houses on Tenant Purchase Scheme (1999) Hazina Newsletter for N.S.S.F. Staff Vol. 1.No. 7 September.
42. NSSF (2001a) Members' Guide Book, an Introductory remark on the background and Establishment of NSSF. NSSF Nairobi.
43. Roulac, E.S. (1982) Valuation in a Turbulent Economy. The Appraisal Journal Vol. L No. 4, America Institute of Real Estate Appraisers, pp.664-80.
44. Sa-Aadu J. (1997) What Have African Urban Housing Policies Wrought: A Historical Perspective of Housing Finance Issues in Africa. Regional Seminar on Maintaining Sustainable Mortgage Finance Schemes in Africa. December 1st -5th, Accra, Ghana.

45. Shanmuganathan S. (1997) The Secondary Mortgage Market in Malaysia. Regional Seminar on Maintaining Sustainable Mortgage Finance Schemes in Africa, December 1st –5th, Accra, Ghana.
46. Sirmans C. F. and Newsome B. (1983) Mortgage-equity Valuation and Alternative Financing: The Appraisal Journal, April pp 244
47. South African Home loans “The Money Lender Who caused all the Trouble” <http://www.sahomeloans.com/pressreleases/article53.htm> (15th August 2001).
48. The Managing Trustee Expounds the Fund Investment Policy (1996) Hazina News Newsletter for NSSF Staff Vol. 1.No. 7 September.
49. The East African No. 355 August 20-26, 2001, an article on “Kenyan Banks Take Donde Act” to court Nation Publishers, Nairobi.
50. Van Den Berg, E. G. (2000) “Participation by South African Banks in Securitisation.” <http://www.sotta.co/page6.html>. (11th April 2000).
51. Wagacha, M. (2000) A Primer on The Interest Rate Question in Kenya. Institute of Policy Analysis and Research Policy Quarterly Special Issue, Issue 5 November.
52. Winger, J. B. & Frasca, R. R. (1995) Investments Introduction to Analysis and Planning 3rd edition New Jersey, Prentice Hall.
53. World Bank (1992) Kenya Financial Sector Adjustment Project, Project Completion Report, December 1992.
54. World Bank Development Forum <Http://www.worldbank.org/devforum>. (10th July 2001)
55. Wurtzebach et al (1995) Modern Real Estate, 5th Edition, New York, John Wiley & Sons Inc.

APPENDIX A

Table A.1: Overview of mortgage financing options

Type	Description	Consideration
Fixed-rate mortgage limited availability financing. New	Fixed interest rate, usually long-term equal monthly payments of principal and interest until debt is paid in full.	Offers stability and long-term tax advantage interest rates may be higher than other types of fixed rate mortgages are rarely assumable.
Flexible rate mortgage below market. if index in- in payments rate or payment caps.	Interest rate changes are based on a financial index resulting in possible changes in your monthly payments, loan term and/or principal. Some plans have But may cause negative amortization. Rate caps while rare, limit amount total debt can expand.	Readily available. Starting interest rate is slightly but payments can increase sharply and frequently creases. Payment caps prevent wide fluctuations
Renegotiable-rate stability. Mortgage (rollover)	Interest rate and monthly payments are constant for several years; changes possible thereafter. Long-term mortgage.	Less frequent changes in interest rate offer some
Balloon mortgage equity until loan refinanced.	Monthly payments based on fixed interest rate; usually short-term; payments may cover interest only with principal due in full at term end.	Offers low monthly payments but possibly no is fully paid. When due loan must be paid off or Refinancing poses high risk if rates climb.
Graduate-payment able to keep pace Mortgage flexible rate payment result in additional	Lower monthly payments rise gradually (usually over 5 – 10 years) and the level off for Duration of term. With flexible interest rate Additional payments changes possible if index Changes.	Easier to qualify for. Buyer's income must be with scheduled payment increases. With a increases beyond the graduated payment can negative amortization
Shared appreciation jumps. If home Mortgage still be due	Below market interest rate and lower monthly payments in exchange for a share of profits when Property is sold or on a specified date. Many Variations	If home appreciates greatly, total cost of loan fails to appreciate projected increase in value may requiring refinancing possibly at higher rates.
Assumable mortgage "due on sale most new	Buyer takes over seller's original below market Rate mortgage	Lowers monthly payments. May be prohibited if clause is in original mortgage. Not permitted on Fixed rate mortgages.
Seller take back balloon refinancing at	Seller provides all or part of financing with a First or second mortgage.	May offer a below market interest rate may have a Payment requiring full payments in a few years or Market rates, which could sharply increase debt.
Type	Description	Consideration
Wraparound higher rate. If collect debt.	Seller keeps original low rate mortgage. Buyers makes payments to seller who forward A portion to the lender holding original	Lender may call in old mortgage and require buyer defaults seller must take legal action to

Mortgage. Offers lower effective interest Rate on total transaction.

Growing equity mortgage increases reduce (rapid-payoff mortgage) up with	Fixed interest rate but monthly payments may vary according to agreed on schedule or index	Permits rapid payoff of debt because payments principal. Buyer's income must be able to keep payments increases.
Land contract Buyer has few	Seller retains original mortgage. No transfer Of title until loan is fully paid. Equal monthly Payments based on below-market interest rate with unpaid principal due at loan end.	May offer no equity until loan is fully paid. protections if conflict arises during loan.
Buy-down years. En- flexible-rate end of subsidy	Developer (or third party) provides an interest Subsidy, which lowers monthly payments during the first few years of the loan. Can Have fixed or flexible interest rate.	Offers a break from higher payments during early able buyers with lower income to qualify. With mortgage, payments may jump substantially at Developer may increase selling price
Rent with option payment and decide inflationary times. rental	Renter pays "option fee" for right to purchase property at specified time and agreed on price. Rent may or may not be applied to sale price.	Enables renter to buy time to obtain down whether to purchase. Locks in price during failure to take option means loss of option fee and payments.
Reverse annuity end of term Mortgage (equity conversion) selling property or	Borrower owns mortgage free property and needs income. Lender makes monthly payments to borrower using property as collateral	Can provide homeowners with needed cash. At borrower must have money available to avoid refinancing.
Zero rate and low rate cost (because of Mortgage long term tax	Appears to be completely or almost interest free. Large down payment and one-time finance charge, then loan is repaid in fixed monthly payments over short term	Permits quick ownership. May not lower total possibly increased sales price). Doesn't offer deductions.

SOURCE: (Adopted from Winger and Frasca, 1995, : 541)

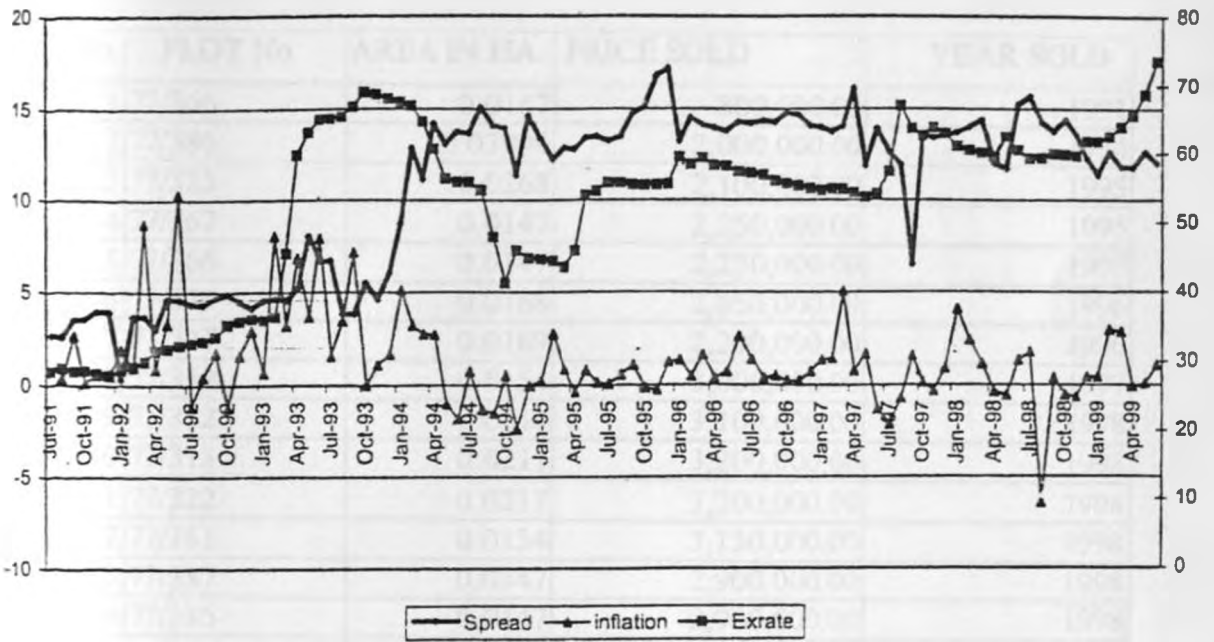
Table A.2: Credit delinquency rates compared, 1976-86 (USA)

	1976-80 average	1981	1982	1983	1984	1985	1986
	%	%	%	%	%	%	%
S&L mortgages	1.09	1.28	1.90	2.20	2.13	2.80	4.19
Commercial bank consumer Instalment loan	n.a.	n.a.	n.a.	2.65	2.59	3.01	3.27

Note: FSLIC-insured thrift mortgage delinquency rate: 1983 0.7
1.4
2.8

Source: (Adopted from Ball, 1990, pp: 110).

Fig.A1.: The interest rate spread and Macroeconomic indicators



Source: (Ndung'u & Ngugi, 2000, pp.23)

APPENDIX B

Table B1. PRUDENTIAL ESTATE SALES ANALYSIS BETWEEN 1991 AND 2001

S No.	PLOT No.	AREA IN HA	PRICE SOLD	YEAR SOLD
1	77/366	0.0147	800,000.00	1991
2	77/386	0.03994	2,000,000.00	1994
3	77/325	0.0268	2,100,000.00	1995
4	77/367	0.0147	2,250,000.00	1995
5	77/366	0.0147	2,250,000.00	1995
6	77/375	0.0168	2,650,000.00	1996
7	77/247	0.0189	2,200,000.00	1996
8	77/352	0.0154	3,000,000.00	1997
9	77/312	0.0214	3,100,000.00	1998
10	77/313	0.0211	3,200,000.00	1998
11	77/322	0.0217	3,200,000.00	1998
12	77/351	0.0154	3,150,000.00	1998
13	77/337	0.0147	2,900,000.00	1998
14	77/336	0.0147	2,900,000.00	1998
15	77/335	0.0147	2,900,000.00	1998
16	77/334	0.0158	2,755,000.00	1998
17	77/333	0.0158	2,900,000.00	1998
18	77/332	0.0158	2,900,000.00	1998
19	77/331	0.0158	2,900,000.00	1998
20	77/299	0.0174	3,000,000.00	1998
21	77/302	0.0174	3,000,000.00	1998
22	77/310	0.022	3,000,000.00	1998
23	77/300	0.0174	3,000,000.00	1998
24	77/266	0.0214	2,750,000.00	2001

Table B2: 1991-2000 Data on Horizontal Sales and Net Rent at the Time of Property Sale.

	Estate or street Name	Area of Land In Acres.	(1) Bungalow (2) Maisonette (3) Apartment Insert No.Only	No.Of Bedrooms	Plinth Area Sqft	Year Sold	Annual Net Rent at Time of Sale	Price Sold
1	Prudential Estate	0.0363	2	4		1991	99,600	800,000
2	Loresho South	0.444	1	4		1992	240,000	2,700,000
3	Komarock Ph. 2 Infill B	0.0355	1	2	490	1993	48,000	530,000
4	Prudential Estate	0.0987	2	4		1994	144,000	2,000,000
5	Komarock Ph. 2	0.0333	1	2	484	1994	60,000	595,000
6	Prudential Estate	0.0363	1	4		1995	144,000	2,250,000
7	Kaputei road Lavington	0.784	1	3	1649	1996	720,000	11,500,000
8	lavington	0.950	1	4	1964	1996	900,000	15,000,000
9	Westlands	1.71	1	4	2430	1996	900,000	16,500,000
10	Riara Road	0.891	1	4	1750	1996	780,000	12,733,056
11	Mugoya South 'C'	0.0916	1	4	1470	1996	300,000	4,500,000
12	Ruby South 'C'	0.0415	2	4	1215	1996	240,000	3,200,000
13	Phase V Buruburu	0.04645	1	3	754	1996	168,000	2,100,000
14	South C	0.1111	2	4	2952	1996	420,000	7,500,000
15	Plainsview	0.1158	1	3	1176	1996	270,000	4,000,000
16	Chama Ave. Kilimani	1.01	3	3	1507	1996	420,000	4,400,000
17	Mji Kenda Rd. Lavington	1.022	2	5	2543	1997	1,020,000	16,000,000
18	Likon Rd. Kilimani	0.12	8 Town houses	4	2912	1997	720,000	8,500,000
19	Chalbi drive Lavington	0.99	1	3	1633	1997	660,000	9,000,000
20	Mukeni Rd. South B	0.225	(2x2 bed flat) (sold equal price)	2 each	2000each	1997	144,000	3,250,000
21	Amboseli Lane Lavington	0.868	1	4	1935	1997	780,000	10,300,000
22	Komarock Ph. 2	0.0333	1	2	484	1997	99,600	1,600,000

	Estate or street Name	Area of Land In Acres.	(1) Bungalow (2) Maisonette (3) Apartment Insert No.Only	No.Of Bedrooms	Plinth Area Sqft	Year Sold	Annual Net Rent at Time of Sale	Price Sold
23	Ngong Rd Karen	3.82	2	5	4200	1998	840,000	18,000,000
24	Kisuru Thigiri Ridge road	4.8	1	4	2047	1998	840,000	23,000,000
25	New Muthaiga	0.5321	2	5	4100	1998	840,000	15,500,000
26	Westlands Apart 3B	24 units on 0.45	3	2	800	1998	263,700	2,750,000
27	Gitanga Rd. Thompson	1.55	1	4	2608	1999	960,000	22,000,000
28	Othaya Rd. Lavington	776	Part s/storey Part d/storey	6	4185	1999	900,000	17,000,000
29	Mki Kenda Lavington	1.022	2	5	2543	1999	960,000	16,000,000
30	Gitanga Rd. Thompson	1.55	1	4	2608	1999	960,000	22,000,000
31	Avenue park phase II	0.0645	2	4	1434	2000	360,000	4,000,000
32	Buruburu Phase IV	0.03	2	3	757	2000	180,000	2,400,000
33	Lavington	0.881	1	4	1886	2000	720,000	12,000,000
34	Spring Valley	0.75	2	5	2724	2000	1,020,000	14,500,000
35	Miotoni Rd Karen	3.155	1	4	3045	2000	1,800,000	26,000,000
36	Loresho	0.488	1	4	2799	2000	960,000	11,000,000
37	Muhoya Ave. Lavington	0.9726	1	4	2760	2000	720,000	12,500,000
38	Ring Rd. Westlands	0.75	double storey block of flats	4x2 beds flats	4270	2000	960,000	15,525,000
39	Muguga Green	1.023	1	4	2151	2000	660,000	12,000,000
40	Convet Drive Lavington	0.814	1	3	1713	2000	600,000	8,550,000
41	Lavington	1.311	1	5	4060	2001	1,200,000	19,000,000
42	New Muthaiga	0.947	1	4	3886	2001	1,440,000	16,500,000
43	Muthaiga	1.285	2	4	3020	2001	1,440,000	18,000,000
44	Gathanju Rd Lavington	0.812	1	3	35016	2001	960,000	10,500,000
45	Thigiri Lane New Muthaiga	0.9933	1	4	2314	2001	780,000	10,000,000
46	Riverside Drive	0.75	1	refurbish 5 beds	6400	2001	2,400,000	28,600,000