FACTORS INFLUENCING THE DEVELOPMENT
OF SECONDARY MORTGAGE MARKET IN KENYA:

With special emphasis on Mortgage backed securities.

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A Management Research Proposal Submitted in Partial fulfillment of
the Requirement of the Degree of Masters of Business Administration.

(MBA),

Faculty of Commerce,

University of Nairobi

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DECLARATION

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

Signed: ........................................ Date: ........................................

Mbuvi Obed Mutuku

DEDICATION

To my loving parents, my dad Peter Mbuvi and mom Grace. My Dear Wife Stella, Sons Kevin and Kennedy, and my Dear brothers and sisters for their immeasurable love, care and support.

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

Signed: ........................................ Date: 20.11.2006

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DEDICATION

To my loving parents, my dad Peter Mbuvi and mum Grace, My Dear Wife Stella, Sons Kevin and Kennedy, and my Dear brothers and sisters for their immeasurable love, care and support.
ACKNOWLEDGEMENT

This research has been made possible by a number of people who I am indebted and would like to express my gratitude.

Special thanks go to my supervisor Luther Otieno, who patiently and conscientiously guided me through the research, for without his caring and timely guidance this project would not have been possible.

I am deeply indebted to the members of my family for the overwhelming support they have accorded me throughout the program. Special thanks go to my wife for her support and inspiration. My dad, Peter Mbuvi and my mum Grace for their unlimited parental love and financial support. My brothers John and James and my sisters Josephine and Jackie remained very close.

To my dear friends and workmates, I deeply thank you. I am deeply indebted to Tarus because of editing my proposal, I say thank you, it was greatly through your kind support that this project has become a success. To my fellow MBA class, I thank you for being helpful to me. For all those who helped me in one way or the other, I thank you all. May God bless you.

Naturally, whereas I received a lot of support and guidance in this research project, responsibility and blame for any deficiencies therein rests solely on my shoulders.
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<tr>
<th>Abbreviation</th>
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<td>CBK</td>
<td>Central Bank of Kenya</td>
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<td>MBS</td>
<td>Mortgage Backed Securities</td>
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<td>NSE</td>
<td>Nairobi Stock Exchange</td>
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<td>CMA</td>
<td>Capital Markets Authority</td>
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<td>GNMA</td>
<td>Government National Mortgage Association</td>
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<td>USA</td>
<td>United States of America</td>
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<td>PTI</td>
<td>Payment to Income</td>
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<td>LTV</td>
<td>Loan to Value</td>
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<td>Special Purpose Vehicle</td>
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<td>FHLMA</td>
<td>Federal National Mortgage Association</td>
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<td>CMO</td>
<td>Collateralized Mortgage Obligation</td>
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<td>IO</td>
<td>Interest Only</td>
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<td>PO</td>
<td>Principal Only</td>
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<td>GDP</td>
<td>Gross Domestic Product</td>
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<td>HELB</td>
<td>Higher Education Loans Board</td>
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<td>KPLC</td>
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ABSTRACT

The primary objective of the study was to establish the factors influencing the development of the mortgage backed securities in Kenyan market.

The researcher was prompted to undertake this study since no direct research had been done on this area.

In order to facilitate the study nine questionnaires were administered and all responded. The results showed that there was urgent need to develop a secondary mortgage market in Kenya. Most of the firms interviewed showed strong capital base which is prerequisite for securitization. The high cost of finance which is short term cannot support long term investments therefore there is need for a long term sources of finance. The default rate is at manageable level hence not a threat to securitization. The study further revealed that the loan portfolio is adequate to support securitization.
CHAPTER ONE

1.0 Introduction.

1.1 Background

Fabbozi and Modigliani (1992), argued that, While it is the dream of everyone to own a home, the major portion of the funds to purchase one must be borrowed.

Mortgage is a debt instrument giving conditional ownership of an asset and secured by the asset that is being financed. In this case the borrower provides the lender a mortgage in exchange for the right to use the property during the term of the mortgage and agrees to make regular payments of both the principal and interest.

Moorad Choudhry (2002), defined securitization as the creation and issuance of debt securities, or bonds, whose payments of principal and interest is derived from cash flow generated by separate pools of assets. Financial institutions can use securitization to immediately realize the value of cash producing assets.

Fabbozi and Modigliani (1992) Defined mortgage market as a collection of both the primary and secondary markets in which mortgage trade. They argued that the two markets are related and the development of one leads to the development of the other. He defined primary mortgage market as situation where the lender deals directly with the borrower for underwriting and origination of the loan and Secondary Mortgage Market as loans and securities backed by mortgage loans are sold to investors, typically through intermediaries, for inclusion as part of the investor’s portfolio of assets.

Prior to the 1930s there was no organized secondary mortgage market. The development was part of President Roosevelt's 'New deal' program to lift the U.S economy out of the 'Great Depression'. It was one element of multi-faceted plan to encourage home ownership and stimulate mortgage lending. The surge and growth in secondary market after world war II was due to demand for guaranteed demand loans and growth in demand for long term investments by pension funds and life insurance companies. (Jaffee 1995)
According to Choudhry (2002) the mortgage backed market in the U.S is the largest in the world and witnessed phenomenal growth in the early 1990’s. The size is estimated at around $1.8 trillion at the end of 1995. In UK the asset backed securities has also witnessed rapid growth, and many issues are triple-A rated because issuers create a special purpose vehicle that is responsible for the issue. Unlike the US market, most bonds are floating rate instruments, reflecting the variable rate nature of the majority of mortgage in UK.

Prior to the securitization revolution, American mortgage markets had operated as isolated, subsidized, and often inefficient components of the capital markets. The dramatic effects of mortgage securitization were achieved because securitization tightly integrated real estate finance with the overall capital market. The benefits of securitization for the American mortgage markets have included lower mortgage interest rates, less sensitivity to credit rationing, less need for subsidization, and the elimination of regional variations in mortgage interest rates. (Renaud 1995)

In Kenya the traditional methods of raising finance are through equity and bank loans. According to Paul Manasseh (1990) equity is finance contributed by real owners of the company and only applicable to public limited companies. This form of raising capital is costly to the company since it has to come up with prospectors. The company has also to meet some minimum requirements set by the capital markets authority (CMA) such as publishing its accounts which might expose some of its secrets to its competitors. This form of raising capital can disorganize its shareholding which might affect its operations. Firms in Kenya also raise finance through bank loans. Paul Manasseh (1990) argued that banks prefer short term lending since most of the deposits with these banks are subject to withdrawal on demand and credit squeeze by central bank. The main problem with bank loan is that interest is a legal obligation and failure may lead the company into liquidation. Bank loans also calls for security which may be rare or restriction on its use.

According to Martin Mbugua (2003) in his research on corporate bond in Kenya he argued that there is need for mortgage firms in the country to move away from the traditional methods of raising capital and source cheaper funds by issuing Mortgage backed securities (MBS). This will contribute to lower borrowing costs both for
individual and financial institutions that will realize the full value of their loans immediately and can turn around and re-deploy that capital in form of new loans. Firms can also lower financing costs through issue of MBS since they are designed to carry a higher credit rating than would be realized from other types of Bonds. This means that investors would demand lower risk premium. The originators will then pass the savings on to the consumer in the form of lower lending rates.

In Kenya Mortgage firms need money in order to grow and meet their ever increasing demand. This dream has not been achieved due the high cost of finance in the country. This can be demonstrated by the high bank rates charged, which also translates to high mortgage rate to the consumers. With the introduction of secondary mortgage market the cost of finance will go down and hence mortgage firms will access finance cheaply since the risk involved is lower than all other forms of raising finance.

In Kenya the first corporate and government bond were issued in 1996 and 1997 respectively. Since inception the bond market has grown very fast and they are being traded in the Nairobi stock exchange (NSE) and it has become the main source of investment for investors. These is clear indication that there is need to introduce the secondary mortgage market in the country to boost the mortgage industry.
1.2 Statement of the problem.

In Kenya the demand for residential houses far outweighs the supply. According to UNHABITAT statistics the demand for houses in the cities in Kenya is over 150,000 units per annum, compared to supply of only 50,000 units per annum. Therefore there is need for the sector to source the cheapest finance option available to finance more estate development to reduce the gap. Mbaru (2002) in his research argued that mortgage providers depend on short term liabilities to fund long term assets creating a major loan mismatch.

In Kenya the main sources of finance are bank loans which charge high interest rates due to the risk involved and also require security. Another source is the issue of common stock which is cheaper than bank loans but the process of issuing them is long and costly. These creates an opportunity for securitization of mortgages, if done properly it can raise cheaper funds from the capital market and hence make mortgage more available and affordable. (Paul Manasseh 1990)

Many studies have been done on mortgage firms. Ndirangu (2004) studied on the effects of mortgage on finance performance of mortgage institutions in Kenya; Nkorote (2004) studied the environmental challenges and the strategic response in the mortgage industry in Kenya. Murugu (2003) dealt on the perceived quality of service in the mortgage sector, the case of HFCK, Mbugua (2003) analyzed the factors influencing the development of corporate bond in Kenya. No known study that has dealt on the development of secondary mortgage market in Kenya. Therefore this study will seek to fill the knowledge gap that currently exists and to explore on how mortgage firms with partnership with the government can come up with rules and regulations of issuing MBS.

MBS offer a more attractive financing option than bank loans and overdrafts and their development can be a benefit to the mortgage industry and the country as whole.
1.3 Objective of the study

The objective of the study is to:

- Establish factors influencing the development of the mortgage backed securities in Kenyan market

1.4 Importance of the study.

The study is important since no direct research has been undertaken in the country. This is mainly because it's fairly a new concept in Kenya. This study is a benefit to:

a) Credit borrower - the study will provide information on cheaper source of financing instead of them relying on expensive sources.

b) Management and employees - the study will give the manager an insight into opportunity of financing capital expenditure cheaply through MBS which would translate to higher profits.

c) Shareholders. - The study will enlighten them on cheaper source of finance available in MBS which can be able to increase their wealth.

d) Investors. - Offer fixed income variety of alternative investment to bank deposits and government securities.

e) Research and academicians: - There is very little if any in the field of MBS especially in the developing countries. The research will therefore offer more light in the field and form a bases for further research.

f) Regulators, Capital market authority (CMA) and NSE. - This research will help them come up with framework that entice the would be investors.

g) Intermediaries (stock brokers and investment advisors.) They have a key role to play in the realization of MBS market. The research will try to make recommendations on key areas that need to be explored.
CHAPTER TWO

2.0 LITERATURE REVIEW.

2.1 INTRODUCTION

The phenomenon of secondary mortgage market is relatively new in the developing world, though in developed world it has been in existence for a longer period. In order to fully understand it, this research will first trace its development in developed countries such as USA and Europe as whole. Secondly it will look its applicability in the Kenyan market.

The first mortgage backed securities arose from the secondary mortgage market in 1970. Investors had traded whole loans, or unsecuritized mortgages, for some time before the Government National Mortgage Association (GNMA), also called Ginnie Mae, guaranteed the first mortgage pass-through securities that pass the principal and interest payments on mortgage through to investors. Ginnie Mae was later followed by Fannie Mae a private corporation chartered by the federal government along with Freddie Mac to promote homeownership by fostering a secondary market in home mortgages. This made the secondary mortgage market more liquid and attractive to investors and lenders. (Fabbozi and Modigliani 1992)

2.2 Historical Development of Secondary Mortgage Market in USA.

According to Fabbozi & Modigliani (1992) Real estate represents approximately half of all the tangible capital asset in the developed countries of the world. Real assets are the most durable assets in these economies, so the cost of acquiring real estate assets generally far exceeds the annual rental cost of using real estate. In developed countries the mortgage market is among the largest components of the capital markets. According to Fabbozi & Modigliani (1992) they stated that the major goal of USA public policy is to provide adequate and affordable housing for US citizens. Historically the private sector has not been able to accomplish this goal without the intervention of the federal government.
Prior to securitization revolution, American mortgage markets had operated as isolated, subsidized, and often inefficient components of the capital markets. The dramatic effects of mortgage securitization were achieved because securitization tightly integrated real estate finance with the overall capital markets. The benefits of securitization for the American mortgage markets have included lower mortgage interest rates, less sensitivity to credit rationing, less need for subsidization, and the elimination of the regional variations in mortgage interest rates. (Jaffee and Renaud1995)

The main participants in housing market are:-

- Borrowers: Those who demand funds with which to purchase a home.
- Investors: Those who supply funds by invest in mortgage loans.
- Developers: Those who supply housing.

Jaffee and Renaud (1995) argued that the amount of housing construction and amount of funds demanded for the purchase of homes are determined by the combined action of these three groups. The US government has influenced the behavior of all the three groups by creating government agencies that have guaranteed mortgage loans against default thus making funds available to certain segments of the population who would not otherwise have been able to acquire a home. They have promoted various types of mortgage designs that are more attractive to borrowers and investors. They have also developed various MBS products such as pass-through and collateralized obligations and guaranteed those products against default risk so that a wider range of institutional investors would supply funds to the mortgage market. They have standardized mortgage loan terms and documentation as a result of the process of insuring / guaranteeing mortgage loans and securitizing them. In addition they have provided liquidity to the mortgage market by buying mortgage loans, provided credit facilities to certain lenders in the mortgage market and granted loans at an interest below the prevailing market rate to encourage the construction of low income housing.

Several legislative acts and regulatory changes helped further the development of the private MBS market. The secondary mortgage market enhancement Act of 1984...
SMMEA) included provision to improve the marketability of mortgage related securities earning a double A quality rating.

The tax reform Act of 1986 made the structuring of private mortgage related securities less costly from tax perspective. Under the tax law the issuer is not treated as a taxable entity. (Fabbozi and Modigliani 1992).

2.3 Mortgage Market.

Mortgage markets can be separated into four vertically related activities: mortgage origination, mortgage holding, mortgage transfers and related mortgage activities. (Jaffe and Renaud, 1995).

2.3.1 Mortgage origination.

This is the process through which mortgage debt is created, comparable to the underwriting function for other capital markets securities. This requires an evaluation of the property's collateral value and borrower's credit worthiness, and the determination of mortgage contract terms. (Gangwani 1998)

Mortgage originators include commercial banks, mortgage firms, life insurance companies and pension funds.

The origination process: - A potential homeowner who wants to borrow funds to purchase a home will apply for a loan from a mortgage originator upon completion of the application form and payment of application fee then the originator will perform a credit evaluation of the applicant. (Jaffe and Renaud 1995)

According to Fabbozi and Mogidlian, (1995) the two primary factors in determining whether the funds will be lent are the Payment-to-Income (PTI) ratio and the Loan to Value (LTV) ratio.

The PTI is the ratio of monthly payment (both mortgage and real estate tax payments) to monthly income. This is a measure of the ability of the applicant to make monthly
payments. The smaller the ratio, the greater the likelihood that the applicant will be able to meet the required payments.

LTV is the ratio of the amount of the loan to the market value of the property. The lower this ratio the greater the protection the lender has if the applicant defaults and it therefore becomes necessary to repossess and sell the property.

Once the originator has closed a mortgage loan he has three choices as to what he can do with the individual mortgages:-

- Hold it as an investment in its portfolio.
- Sell it in the secondary market.
- Warehouse it in order to aggregate a sufficient amount of loans to either sell as a package in secondary market or securitize the mortgage.

2.3.1.1 Risks associated with mortgage origination.

A mortgage originator’s inventory of the unsold loan (i.e. loan applications being processed and loans commitment made) is called its pipeline and its associated risks are referred to as pipeline risk. (Fabbozi and Modigliani 1995)

Warehousing risk- This is risk associated with warehousing closed mortgages in order to sell them in the secondary market or securitize them.

a) Pipeline Risk.

Fabbozi and Modigliani (1995) decomposed pipeline risk into two namely, Price risk which refers to the adverse effects on the value of the pipeline if mortgage rates rise and Fall out risk which is the risk that applicants or those who were issued commitment letters will not close (complete the transaction by purchasing the property with funds borrowed from the mortgage originator). The chief reason for potential borrowers to cancel their commitment or withdraw their mortgage application incase of a decline in mortgage rates. It may become economic to obtain alternative sources of funds.
b) Warehousing risk.

An originator that has warehoused mortgage does not face fallout risk but only price risk. When interest rates increase the warehoused mortgage will be sold in secondary market at a lower price than was paid to the borrower. (Fabbozi and Modigliani 1995)

A mortgage originator with unclosed and warehoused mortgage has a total risk exposure that reflects the combination of pipeline risk and warehouse risk.

2.3.1.2 Hedging mortgage origination risk.

According to Fabbozi and Modigliani, (1995) there are a variety of ways to hedge the risk associated with origination function.

a) Forward contracts.

These are agreements that require a party to the agreement to either buy or sell something at a designated future date at a predetermined price. (Sharpe and Bailey 1996)

By hedging with forward contracts, an originator locks in a value for the mortgage in the pipeline. By so doing the originator sacrifices the upside potential resulting from a decline in mortgage rates in exchange for an elimination of downside loss should mortgage rates rise.

b) Future contracts.

This represents an alternative to using forward to hedge symmetric risks. Future contracts are exchange traded products. They represent a firm legal agreement between buyer and an established exchange. The buyer/seller agrees to make delivery of something at a specific price at a designated time. (Sharpe and Bailey 1996)

c) Option.

An option is a contract in which the writer of the option grants the buyer of the option the right but not the obligation to purchase from or sell something to the writers at a specified price with a specified period of time. (Sharpe and Bailey 1996)
The writer also referred to as the seller grants this right to the buyer in exchange for a certain sum of money called the option price or option premium. The right granted to buyer to purchase the underlying instruments from the writer is called a call option where as the obligation to sell is called put option.

2.3.2 Mortgage holding.

This refers to the activity of the investor who owns or holds the mortgage debt. Mortgages are only held by commercial banks, mortgage banks, insurance companies, pension funds and individual investors. (Jafee and Renaud 1995) The demand for mortgage debt by the various potential holders depends on general portfolio considerations (interest return, risk and risk bearing capability, assets and liability duration matching and tax status) as well as special incentives that may be created by government.

The mortgage origination and mortgage holding functions may be integrated into a single institution or they may be carried out by a separate institution.

2.3.3 Mortgage transfer.

This refers to the process through which mortgage ownership is transferred, primary from the originator to a holder. (Jafee and Renaud 1995)

In principle, this is no different than the ordinary security buy and sells transaction. In practice however the relatively high risk, high information costs, and small size of each individual mortgage forces a more complicated process.

Mortgage transfer costs may be reduced by the potential for large originators to establish a reputation based on a continuing stream of transactions with specific buyers. Technological advances that allow automation and standardization of the mortgage origination process are another source of reduced transfer costs.
2.3.4 Related mortgage services

a) Mortgage insurance.

This protects the mortgage owner against the risk of default by the borrower. In some cases it is provided by the government as a form of subsidy to special borrowers. In other cases it is sold by private insurance firms. Its primary use is to protect the mortgage buyer against the moral hazard of being sold poor quality mortgage. (Cowan 2003)

b) Special purpose vehicle (SPV)

According to Cowan (2003) SPV can either be a trust, corporation or form of partnership set up to purchase the originators assets and act as a conduit for the payment flows. The SPV is legally separate from the company or the holder of the assets.

In order to isolate the securitized assets from the sellers potential bankruptcy, in the US, the securitization vehicle must be ‘bankruptcy remote’ from the originator and the transfer of assets to the trust or SPV must be accomplished by means of a ‘true sale’ a transfer that accomplishes, for the purpose of bankruptcy law, the removal of the transferred assets from the transferors bankruptcy estate.

Cowan (2003) stated that where the SPV is owned or controlled by the originator the following requirements must be met:

- The SPV’s business activities must be limited to those necessary to carry out securitization.
- The SPV must have its own board with independent directors.
- It must maintain separate assets, bank accounts and record keeping.
- The SPV must pay its own expenses out of its own funds.
- The originator must disclose to its creditors that the assets of the SPV are separate and available to satisfy their claims.
- There should not be inter company guarantees, and all other dealings between the originator and the SPV should be conducted on an arms length basis.
c) Mortgage servicer.

The servicer is responsible for the routine asset portfolio administration duties, such as making and processing collections, temporarily reinvesting assets proceeds and administering the day to day operations in case of mortgage, the servicer is responsible for carrying out the foreclosure process. (Telpner and Trauring 2003)

d) Rating agency.

They evaluate and publicly rate mortgage securities in manner they rate corporate and municipal securities. Rated mortgage securities allow investors to obtain a measure of the credit risk without the costs of a detailed credit evaluation. (Telpner and Trauring 2003)

e) Underwriter.

Underwriters, usually investment banks, serve as intermediaries between the issuer (the SPV or trust) and investors. The underwriter will consult on how to structure the MBS based on the perception of the investor demand. They also help determine whether to use their sales network to offer securities to the public or to place them privately. Perhaps most importantly, underwriters assume the risk associated with buying an issue of bonds in its entirety and reselling it to investors. (Telpner and Trauring 2003)

f) Credit enhancement.

Depending on the nature of the transactions and the type of assets, the securitization pool may need such support to attract investors. Enhancement can come from the assets themselves or from an external source. Over collateralization of asset pool is used to enhance credit. (Telpner and Trauring 2003)

External credit enhancements can include a surety bond or a letter of credit from a financial institution.

2.4 Mortgage Market Institution.

Mortgage markets are operated by a wide variety of institutions in the USA. In this case I will focus on only two, depository institutions and mortgage banks, focusing on their advantages and disadvantages.
2.4.1 Depository institutions.

These include commercial banks, savings banks, and building and loan societies. These are the principal mortgage market institutions. They are active both in mortgage origination and mortgage holding, thus eliminating the costs of mortgage transfer. The main advantage of banking institutions is their access to low cost deposit funds, which may include the benefit of subsidized deposit insurance.

There exist branch networks may also be useful for carrying out mortgage origination activity. However, many banks actually originate mortgage origination activity through separate subsidiaries.

The major disadvantage of banking institutions concerns duration matching between their assets and liabilities and their related capital requirements. Bank deposits tend to have quite short duration, while fixed rate mortgages have very long durations, creating a large interest rate risk.

These risks can be reduced or eliminated through interest rate hedges or by issuing adjustable rate mortgages.

2.4.2 Mortgage Bankers and Mortgage Banks.

The primary alternative to the depository structure is a secondary market system. With this system, the mortgages are originated by mortgage bankers. The mortgage banker then transfers the originated mortgage to the final investor.

In many European countries, the final holder is a mortgage bank, which issues its own debt and uses the funds to purchase mortgage from the originators.

The US has comparable secondary market facilities. It has government sponsored agencies such as Federal National Mortgage Association (FHLMC, or Fannie Mae) and Home Loan Mortgage Corporation (FHLMC or Freddie Mac) which among other activities, purchase mortgage directly from originators.

The distinctive feature of the mortgage bank system is that the funds to finance the mortgage are raised directly in the capital markets, rather than through bank deposits.
2.5 Framework for analyzing securitization.

Mortgage securitization represents a newly developed method for structuring a mortgage market. In this system a pool manager securitizes a pool of mortgages and then sell them to capital market investors.

The pool manager is an institution that specializes in creating mortgage securities, often referred as the mortgage conduit. The following describe the process.

2.5.1 Mortgage pass-through security.

The mortgage pool is created simply by combining a large number of individual mortgages. Each investor in the mortgage security receives a prorated share of the net cash flow arising from the mortgage pool. The cash flow consists of all categories of borrower payments: interest, principal and prepayment of principal. The securities are described as ‘pass-through’ because all payments made by the borrower pass through to investor. (Moorad Choudhry, 2002)

2.5.2 Collateralized Mortgage Obligation (CMO).

This differs from pass-through security in that the cash flows from the mortgage pool are distributed on a prioritized basis, based on the class of security held by the investor. All classes of bonds receive an equal share of interest payments; it is the principal repayment cash flow that differs.

Class A bonds will be repaid earlier than any other class of bond that is formed from securitization. It therefore has the shortest maturity. The last class of bond will have the longest maturity.

There is still a level of uncertainty associated with the maturity of each bond, but this is less than the uncertainty associated with pass-through. (Moorad Choudhry, 2002)
2.5.3 Stripped Mortgage-Backed Securities.

This is created by separating the interest and principal payments into individual distinct cash flows. This allows an issuer to create two securities, the IO-Bond and the PO-Bond. In this case the interest and principal are divided into two classes, and two bonds are issued that are each entitled to receive one class of cash flow only.

The bond class that receives the interest payments cash flows is known as an interest-only (IO), while the bond receiving the principal repayments is known as a principal-only (PO). The PO-bond is similar to a zero coupon bond in that it is issued at a discount to par value. If prepayments are received at a relatively short time the investor will realize a higher return.

An IO-bond is essentially a stream of cash flow and has no par value. The cash flow represent interest on mortgage principal outstanding, therefore a higher rate of prepayment leads to fall in the IO price.

2.6 Mortgage Risk.

2.6.1 Prepayment risk.

Although mortgage contracts are long term loan contracts there is no limitation on the amount of principal that may be repaid at any one time. As the borrower is free to prepay a mortgage at time of their choosing, the lender is not certain of the cash flows that will be paid after the contract is taken. Essentially the level of prepayment risk for a pool of loans is lower than individual mortgage. (Moorad Choudhry 2002)

2.6.2 Default risk.

This is the risk that the borrower will fall into arrears, or unable to pay the loan on maturity. Lenders take steps to minimize the level of default risk by assessing the credit quality of each borrower, as well as the quality of the property itself. (Moorad Choudhry 2002)
2.6.2.1 Measures to Eliminate Default Risk.

According to Moorad Choudhry (2002) Investors in mortgage securities face a moral hazard, namely that the conduit firm creating the security would place high risk mortgages in the pool. To protect against this possibility, most mortgage securities provide investors with nearly complete protection against losses created by default. This has been achieved in a variety of ways.

a) Government insured mortgages.

This is a situation whereby the mortgage pool contain only mortgages fully guaranteed by the government. In this case if the borrowers fail to make the required payments, the government steps in and makes the payment to the investor. (Moorad Choudhry 2002)

b) Private insurance of mortgages and mortgage pools.

This is where private insurance companies provide insurance against default on the individual mortgages or the entire mortgage pool. This still leaves investors with the risk that the insurance firm itself might fail. Even though most privately insured mortgages securities receive a credit rating of AAA, they still provide investors a slightly higher yield than those backed by government guarantees. (Moorad Choudhry 2002)

c) Credit enhancement through Over-Collateralization.

This is a situation where by the mortgage pool has a principal value that is larger than the principal value of the mortgage securities. The excess value in the mortgage pool provides protection should some mortgage in the pool default. If defaults do occur, the mortgage conduit is generally required to replace the defaulted mortgage with additional performing mortgages. (Moorad Choudhry 2002)

2.7 Benefits of mortgage securitization.

According to Fabbozi and Modigliani (2002) the following benefits accrue to issuers, investors, and borrowers.
2.7.1 Benefit to Issuers.

Fabbozi and Modiglian (1995) identified several benefits accruing due to securitization of mortgages. Obtaining a lower cost of funds that is segregating assets and using them as collateral for a security offering let’s lower funding costs be obtained. By using mortgage loans as collateral and property structuring a security, a mortgage related institution can obtain a credit rating on the security that is higher than its own credit rating thus resulting in a lower cost of funds.

More efficient use of capital: - For financial institutions that must meet capital requirements, the sale of asset can free up capital. If assets are securitized and the securities are sold, the capital required will reflect actual risk associated with the assets hence reducing excess capital requirement.

Managing rapid portfolio growth: selling assets through securitization provides a means for quickly raising capital while keeping the assets, and hence the debts off the balance sheet, avoiding capital requirements.

Better asset / liability Management: - Since mortgage and consumer installment expose financial institutions to prepayment risk. Securitization passes the prepayment risk to the investor. This gives the financial institution a means for funding assets in which maturity matches that of the asset.

Enhancing financial performance: - when loans are sold via securitization at a yield lower than the interest rate on the loan, the originator realizes the spread. This reflects the fee for servicing the loans partially reflects conversion of illiquid loan into a liquid security.

Diversification of sources: - investors that ordinarily could not make mortgage loans or commercial loans can invest in these securities. This provides more source of capital for both financial and non financial entities.
2.7.2 Benefits to Investors.

Securitization converts illiquid loans into securities with greater liquidity and reduced credit risk. The credit risk is reduced through diversified pool of loans, and credit enhancement. (Moorad Choudhry 2002)

2.7.3 Benefits to Borrowers.

A securitized loan is thus more liquid asset than the loan itself, since it can be sold by the lender if capital is needed. The existence of securitized loans should reduce the spread between the lending rates and treasury securities. As the market matures, competition among originators should produce lower lending rates in the market. (Moorad Choudhry 2002)

2.8 Developing Secondary Market in Kenya.

The US housing finance market is the best in the world, and it has achieved this status primarily through the securitization of mortgage loans. Though securitization does not exist in Kenya there is need to develop these market. According to UNHABITAT statistics the demand for houses in the cities is over 150,000 units per annum compared to supply of only 50,000 units per annum. This creates a short fall of over 100,000 units per annum. This gap between supply and demand is still widening due the high cost of funds in the market currently, and the impact is that around 60% of residents in Nairobi live in slums and informal settlements. (UNHABITAT website 2006)

2.8.1 Factors influencing the development of secondary mortgage market in Kenya.

2.8.1.1 Legislative and Regulatory Considerations.

The main key players in these are; the Government, Capital market authority (CMA); Central Bank, (CBK), and the Nairobi Stock Exchange. (NSE)
a) Role of Government.

The legislation that controls business in Kenya is companies Act and the bankruptcy Act. These two Acts were enacted before the rise of securitization in 1980's in the United States (USA) therefore there is need to incorporate the establishment of ‘bankruptcy remote’ entities in the context of our law. There is also need for the government to incorporate an enabling legal and regulatory framework. (Financial standard, 20th Feb. 2006)

b) Capital Market Authority (CMA).

CMA recently released draft exposure regulations for securitization at the Nairobi stock Exchange. (NSE) The CMA is a statutory body created by an act of parliament, the capital markets authority act, (Cap 485A) of the laws of Kenya. (NSE website 2006)

The CMA has the following responsibilities

- To encourage savers to invest in securities.
- To encourage companies to issue securities
- To ensure fair and equal treatment of all market players.
- To enforce adequate disclosures to enable the securities market to perform its key function.

The CMA must of necessity formulate rules and regulations for the purpose of assisting the securities markets and other capital market to develop.

The CMA is currently in the process of developing rules and regulations of securitization which is not yet developed in the country. Going by the experience of other countries and if all the basics are right and in place there is no doubt that the economy will benefit by the presence and active intervention of the CMA in the capital market. (Kihumba, 2002)

c) Nairobi Stock Exchange (NSE).

The NSE was founded in 1954; it was constituted as a voluntary association of brokers’ registered under the societies Act. In 1980, the Kenya government realized the need to
design and implement policy reforms to foster sustainable economic development with an efficient and stable financial system. (NSE annual bulletin, 1980)

NSE has set out to enhance the role of private sector in the economy, reduce the demands of public enterprises on the exchequer, rationalize the operation of the public enterprise sector to broaden the base of ownership and enhance capital market development (NSE annual bulletin, 1980). The NSE has computerized its trading activities and it has introduced the central depository system (CDS) which has improved the transfer of shares. The success of NSE can clearly be shown by the way it handled the recently concluded issue of the KenGen initial public offer (IPO) which was oversubscribed by over 300%. (NSE annual bulletin, 2006)

The bond market at the NSE is ten years old since the first bond, the EADB bond was listed in 1997. Since then the market has enjoy steady growth in the bond sector. With this fast development there is no doubt that the market can be able to accommodate the mortgage securities. The bond segment is still active and it has a turnover of over 35 billion.

d) Central Bank of Kenya (CBK).

The role of CBK in this process of securitization can be overlooked since its principal mandate of fostering financial system stability has to be maintained. It has to ensure that banks participating in the securitization process are not in breach of any statutory and prudential requirements in particular with regard to capital adequacy and limits on single exposures as a limit of core capital. (CBK website 2006)

2.8.1.2 Demand of mortgage backed securities.

The secondary mortgage market in Kenya will succeed if investors both institutional and individual are willing to invest in MBS. Currently, Kenya has well established collective investment vehicles such as Banks, Insurance firms, Pension Funds, and Mutual Funds.
a) Commercial Banks / Investment Banks.

Commercial banks can play various roles in the issuance of Mortgage Backed securities (MBS) in Kenya. They can act as originators, servicing agent, investors, and credit enhancers.

Securitization will offer the following benefits to them

- Enhanced liquidity through the securitization especially of long term loans.
- Capital adequacy management through reduced capital requirements for securitized on balance sheet assets.
- Banks can earn fees and commission through guaranteeing MBS.
- Banks can also invest in MBS.

b) Pension Funds.

The pension schemes in Kenya are worth approximately kshs.130 billion which is equivalent to 23% of GDP. The retirement Benefits Act of 1997 has attracted wide attention from investors, regulators, policy makers and international donors and lenders. With the introduction of a regulator the benefits scheme are expected to double within the next five years.(RBA Newsletter, march 2005)

The demand for assets created by pooling individual retirement wealth is likely to push up prices of securities on the capital markets and make an active and liquid secondary market. The availability of wide choice of investment options is crucial from a pension’s point of view because it enable the spread of risk among different asset classes. This diversification of risk can protect a pension scheme’s portfolio from market losses and help maintain long term portfolio stability. Therefore there is need for the capital Markets Authority to hasten the process of securitization to tap this niche. With proper mechanisms in place the mortgage industry will benefit and this will narrow the gap between supply and demand of houses in the country.
2.8.1.3 Supply of mortgage backed securities.

a) Interest rates.
Firms in Kenya raise finance through bank loans. Paul Manasseh (1990) argued that banks prefer short term lending since most of the deposits with these banks are subject to withdrawal on demand and credit squeeze by central bank. The main problem with bank loan is that interest is a legal obligation and failure may lead the company into liquidation this tries to push interest rates high. Due to high interest rates firms will try to move away from these sources of finance and source cheaper sources of finance. Due to a high credit rating the mortgage firms will be able to raise funds cheaply in the secondary market.

b) Capital requirement.
In Kenya before a company can be allowed it has to meet all requirements set out by the capital markets authority. Although currently we do not have regulations governing MBS the rules that governs the issue of corporate bond require the firm to have capital base of more than 500 million (NSE publication 2003). The main purpose is to reduce the risk of default by the issuing firm. In Kenya a substantial number of the mortgage firms are quoted in the Nairobi stock exchange and these is a clear indication that they are stable since they are closely monitored by capital market authority hence less risky. Since most of the mortgage have strong capital base they are able to issue MBS at low cost.

b) Loan portfolio. Most of the mortgage firms have loan portfolio worth billions of shillings. These loans can be pooled and securitized to mortgage backed securities and then traded in the secondary market.
2.8.2 Importance of factors influencing development of secondary mortgage market in Kenya.

The success of any securities market depends on how its structured, therefore with good legal and regulatory framework the secondary mortgage will grow very fast and create confidence to the investors.

Fabbozi and Modiglian (1995) identified several benefits accruing due to securitization of mortgages. Obtaining a lower cost of funds that is segregating assets and using them as collateral for a security offering let's lower funding costs be obtained. By using mortgage loans as collateral and property structuring a security, a mortgage related institution can obtain a credit rating on the security that is higher than its own credit rating thus resulting in a lower cost of funds.

More efficient use of capital: - For financial institutions that must meet capital requirements, the sale of asset can free up capital. If assets are securitized and the securities are sold, the capital required will reflect actual risk associated with the assets hence reducing excess capital requirement.

Managing rapid portfolio growth:-selling assets through securitization provides a means for quickly raising capital while keeping the assets, and hence the debts off the balance sheet, avoiding capital requirements.

Diversification of sources: - investors that ordinarily could not make mortgage loans or commercial loans can invest in these securities. This provides more source of capital for both financial and non financial entities.

In Kenya most of the firms have high capital base that creates confidence to the investors and hence reduces the risk involved and improves the credit rating of the security.

2.9 Other areas of Securitization.

Securitization can be used in different areas to finance different kinds of projects in a country.
2.9.1 The student loans.

The higher loans board was established in 1995 by an Act of parliament to provide student loans. The board was mandated to manage a fund to be used for granting loans to assist Kenyan students to obtain higher education.

HELB receives about 30,000 loan applications per year from students both public and private universities. This outstrips the board’s supply of funds. The shortfall in funding requirement could be funded through securitization of the student’s loans receivable. To be able to successfully do this the board would be required to issue corporate bond backed by the loans receivable. From the loan repayment by the student the board will be able to service the bond annually. (Mbaru Jimnah, 2002)

2.9.2 Electricity Receivables.

Electricity bills are trade receivables that could be securitized by KPLC. Over the years KPLC has struggled to efficiently transmit and distribute electricity throughout Kenya at cost effective tariffs to achieve the highest standards. The company has lacked cheaper and sustainable sources of funding to finance its operations. It has relied heavily on traditional debt or bank financing methods and occasionally commercial paper guaranteed by commercial banks. Thus securitizing of the companies receivables comes in handy. (Mbaru 2002)

2.9.3 Water Bills Receivables.

Water bills of city council of Nairobi, Mombasa, and Kisumu as well as municipalities of major towns could be securitized to finance expansion of connection and water distribution to the residents. (Mbaru 2002)

2.9.4 Sewerage receivables.

Local authorities could use sewerage connection receivables to finance expansion of sewer services. They can issue a bond to be serviced by the receivables. (Mbaru 2002)
CHAPTER THREE

3.0. RESEARCH METHODOLOGY.

3.1 Population of the Study.

The population of the study consist of all registered mortgage firms and actively participating in the mortgage industry. According to CBK (2006) there are 9 mortgage firms registered and supervised by the CBK.

3.2 Sampling.

The sample consisted of the 9 mortgage firms registered and supervised by CBK and those that play a major role in the industry.

3.3 Data collection.

The study was facilitated by use of both primary and secondary data. The primary data was collected through a structured open ended and closed ended questionnaire. The questionnaire was administered to the financial accountants, financial managers and credit officers. A drop and pick method was used. Secondary data concerning the particular mortgage firm was obtained from financial report and brochures.

3.4 Data analysis techniques.

Descriptive statistics was used to analyze the primary data. The analysis was further made by the use of grouped frequencies was used since the data sought is sensitive and the respondent wont be willing to give exact figures. Percentages were deemed ideal as it enabled comparison of data.
CHAPTER FOUR

4.0. RESEARCH FINDINGS.

Questionnaires were distributed to a total of 9 mortgage firms registered and supervised by central bank of Kenya (CBK). The response rate was 100 percent (9 out of the 9). All the organizations are situated in Nairobi. Excel and SPSS were used to analyze the collected data.

4.1 Firms status

General characteristics of these firms were established. It was found that 55.56 percent of the mortgage firms under review are quoted in the Nairobi stock exchange. This include Barclays bank, Standard chartered, Housing finance and Savings and loans which is a subsidiary of Kenya commercial bank. While, the remaining 44.44 percent are not. This means that these firms which are quoted have to comply with the CMA rule and regulations. Table 1 below shows the distribution.

Table 1. Firms status

<table>
<thead>
<tr>
<th>Firm</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quoted</td>
<td>5</td>
<td>55.56%</td>
</tr>
<tr>
<td>Unquoted</td>
<td>4</td>
<td>44.44%</td>
</tr>
<tr>
<td>Total</td>
<td>9</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: Research Data.

4.2 Firms capitalization

Respondents were asked to state the firm’s capital base. 66.66 percent of the respondents have a capital base of more than a billion which is a clear indication that they have a strong capital base. 22.22 percent have capital between 800 and 1000 million while the rest 11.12 percent have more than 600 million. If the CMA rule of 500m for issuing corporate bond prevails in the issuance of MBS then 100 percent of the firms will qualify to issue the securities. Refer to table 2 below. Based on the above findings these is a clear indication that the firms have a high credit rating which makes them less risk to invest in them if they issued MBS.
Table 2.

<table>
<thead>
<tr>
<th>Capital in millions</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;200</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>201 – 400</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>401 – 600</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>601 – 800</td>
<td>1</td>
<td>11.12%</td>
</tr>
<tr>
<td>801 – 1000</td>
<td>2</td>
<td>22.22%</td>
</tr>
<tr>
<td>&gt;1000</td>
<td>6</td>
<td>66.66%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>9</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Source: Research Data.

4.3 Number of years in operation.

The tables 3 shows the period of existence. Out of the 9 mortgage firms interviewed, 11.12 percent indicated that they have been in existence for more than 40 years. 22.22 percent of the firms have been in operation for the last twenty and forty years. Whereas 22.22 percent have been in operation for less than six years. Refer table 3 below. This is a clear indication that the firms are have experience in the business.

Table 3.

<table>
<thead>
<tr>
<th>Duration in years</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;6</td>
<td>2</td>
<td>22.22%</td>
</tr>
<tr>
<td>6 – 10</td>
<td>2</td>
<td>22.22%</td>
</tr>
<tr>
<td>11 – 20</td>
<td>2</td>
<td>22.22%</td>
</tr>
<tr>
<td>20 – 40</td>
<td>2</td>
<td>22.22%</td>
</tr>
<tr>
<td>&gt;40</td>
<td>1</td>
<td>11.12%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>9</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Source: Research Data.

4.4 Ownership of the firms.

Table 4 clearly shows that 55.56 percent of the mortgage firms are locally owned while the remaining 44.44 percent are partially owned meaning that they are both local and foreign owned. The above statistics clearly shows that the companies have to adhere to companies act and these increases the confidence of the would be investors.
Table 4.

<table>
<thead>
<tr>
<th>Ownership</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local</td>
<td>5</td>
<td>55.56%</td>
</tr>
<tr>
<td>Foreign</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Partially</td>
<td>4</td>
<td>44.44%</td>
</tr>
<tr>
<td>Total</td>
<td>9</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: Research Data.

4.5 Source of funds.

Respondents were asked to give their various sources of finance. 75 percent used funds directly from the shareholder. These could be due to poor credit rating or high interest rate charged on bank loans. Only 25 percent financed through commercial banks. Refer to Table 5. This is a clear indication that firms are looking for cheaper sources of finance and therefore given the opportunity they can venture into it.

Table 5.

<table>
<thead>
<tr>
<th>Sources</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stocks</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Bank loan</td>
<td>1</td>
<td>25%</td>
</tr>
<tr>
<td>Shareholders</td>
<td>2</td>
<td>75%</td>
</tr>
<tr>
<td>Total</td>
<td>3</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: Research Data.

4.6 Other sources of funds

Table 6 shows that 66.66 percent of the respondents are keen to explore other financing options available if economically viable. 33.34 percent are quite content with their current arrangement. The above is a clear indication that we have limited sources of finances and therefore there is need for the government to create legal and regulatory framework to encourage firms to use other forms of raising capital.
Table 6. Other source

<table>
<thead>
<tr>
<th>Source</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>New</td>
<td>6</td>
<td>66.66%</td>
</tr>
<tr>
<td>Old</td>
<td>3</td>
<td>33.34%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>9</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Source: Research Data.

4.7 Debts tenure.

The respondents were asked to indicate the outstanding period to the maturity of their debt. 11.11 percent of the respondent’s debts were below 1 year meaning that the MBS might not be ideal for them. 88.88 percent were above 1 year. These firms are potential MBS issuers. Refer to table 7 below.

Table 7.

<table>
<thead>
<tr>
<th>Period in years</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 1</td>
<td>1</td>
<td>11.11%</td>
</tr>
<tr>
<td>1 – 3</td>
<td>5</td>
<td>55.56%</td>
</tr>
<tr>
<td>3 – 5</td>
<td>3</td>
<td>33.33%</td>
</tr>
<tr>
<td>&gt; 5</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>9</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Source: Research Data.

4.8 The main purpose of seeking finance.

The respondents were asked there current major cash obligation. 77.77 percent needed to expand their business, whereas 22.23 percent needed funds to clear their debts most of which were paying high interest to their banks. Since most of the firms need funds to expand their business these is clear indication that they are looking for long term finances. In Kenya most of the sources are short term and with the introduction of MBS that will be solved.

Table 8.

<table>
<thead>
<tr>
<th>Purpose</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expansion</td>
<td>7</td>
<td>77.77%</td>
</tr>
<tr>
<td>Pay off debtors</td>
<td>2</td>
<td>22.23%</td>
</tr>
<tr>
<td>Daily expense</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
4.9 The current / previous debt rate

Table 9 shows that 66.66 percent of the respondents' debts are accruing at an interest rate of between ten and fifteen percent. Whereas 33.34 percent of the respondents' debt accrue at a rate below 10 percent.

<table>
<thead>
<tr>
<th>Rate</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 5%</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5% - 10%</td>
<td>3</td>
<td>33.34%</td>
</tr>
<tr>
<td>10% - 15%</td>
<td>6</td>
<td>66.66%</td>
</tr>
<tr>
<td>15% - 20%</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>20% - 30%</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>&gt; 30%</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>9</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: Research Data.

4.10 Financial product awareness

Table 10 shows that 88.89 percent of the respondents were aware of other financial products, whereas only 11.11 percent were unaware of other financial products.

<table>
<thead>
<tr>
<th>Awareness</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aware</td>
<td>8</td>
<td>88.89%</td>
</tr>
<tr>
<td>Unaware</td>
<td>1</td>
<td>11.11%</td>
</tr>
<tr>
<td>Total</td>
<td>9</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: Research Data.

4.11 Financial products that respondents are aware of.

The respondents were asked to state the financial products that they are aware of. 44.44 percent were aware of securitization, 22.22 percent were aware of offshore borrowing,
22.22 percent were aware of corporate bond and 11.12 percent were aware of commercial paper. Refer to table 11 below.

**Table 11.**

<table>
<thead>
<tr>
<th>Types</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial paper</td>
<td>1</td>
<td>11.12%</td>
</tr>
<tr>
<td>Corporate bond</td>
<td>2</td>
<td>22.22%</td>
</tr>
<tr>
<td>Off shore borrowing</td>
<td>2</td>
<td>22.22%</td>
</tr>
<tr>
<td>Sale of stock</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Securitization</td>
<td>4</td>
<td>44.44%</td>
</tr>
<tr>
<td>Others</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>9</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Source: Research Data.

4.12 Sources of information on financing alternative

Table 12 shows that 55.55 percent of respondents use investment advisers to advice them on the best investment alternatives. 22.23 percent relied on the media to update them on the best alternative. 11.11 percent relied on the brokers to advice them while the remaining 11.11 percent relied on their banks.

**Table 12.**

<table>
<thead>
<tr>
<th>Sources</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bank</td>
<td>1</td>
<td>11.11%</td>
</tr>
<tr>
<td>Broker</td>
<td>1</td>
<td>11.11%</td>
</tr>
<tr>
<td>Investment adviser</td>
<td>5</td>
<td>55.55%</td>
</tr>
<tr>
<td>Media</td>
<td>2</td>
<td>22.23%</td>
</tr>
<tr>
<td>Others</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>9</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Source: Research Data.

4.13 Interest in issuing mortgage backed securities.

Respondents were asked if they were interest in issuing MBS, 66.66 percent stated that they were interest if given the opportunity. Whereas 33.34 percent showed no interest. The above results clearly shows the supports the introduction of MBS can enjoy if introduced in the market.
4.14 Mortgage lending rates

These are the rates the mortgage firms are charging their customers. According to table 14 88.89 percent of the respondents charge an interest of more than 15 percent which is too high for the average income earners to afford. Only 11.11 percent of the respondents charge interest of less than 15 percent. Refer to table 14 below.

<table>
<thead>
<tr>
<th>Rate</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;5%</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5% - 10%</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>10% - 15%</td>
<td>1</td>
<td>11.11%</td>
</tr>
<tr>
<td>15% - 20%</td>
<td>8</td>
<td>88.89%</td>
</tr>
<tr>
<td>&gt;20%</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>9</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: Research Data.

4.15 Mortgage loan default rate

This is the rate at which mortgage holders fall in arrears. As per table 15 its evident that 44.44 percent of the respondents have a default rate of between 5 percent and 10 percent. 33.34 percent have a default rate of between 15 percent and 20 percent. Only a small portion of 11.11 percent have default rate of above 20 percent. According to the above results the default rate is minimal and hence it can sustain MBS.

<table>
<thead>
<tr>
<th>Default rate</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 5%</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5% - 10%</td>
<td>4</td>
<td>44.44%</td>
</tr>
</tbody>
</table>

Source: Research Data.
4.16 Mortgage loan portfolio.

The respondents were required to state their mortgage portfolio. 44.44 percent of the respondents declared a portfolio of above two billion shillings. This is a clear indication that most of the firms have been active in the market. 33.33 percent hold a portfolio of between 1 billion and 2 billion. Whereas the rest 22.23 percent hold portfolio worth between 751 million and a billion. Refer to table 16 below.

<table>
<thead>
<tr>
<th>Portfolio in M Kshs.</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 50</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>50 – 100</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>101 – 500</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>501 – 750</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>751 – 1000</td>
<td>2</td>
<td>22.23%</td>
</tr>
<tr>
<td>1000 – 2000</td>
<td>3</td>
<td>33.33%</td>
</tr>
<tr>
<td>&gt;2000</td>
<td>4</td>
<td>44.44%</td>
</tr>
<tr>
<td>Total</td>
<td>9</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: Research Data.
CHAPTER FIVE

5.0 SUMMARY, CONCLUSIONS AND RECOMMENDATIONS.

5.1 SUMMARY OF THE FINDINGS.

The study revealed that mortgage firms have been in existence in Kenya for long. It was found out that 11 percent of the firms have existed for more than forty years. 44% of the firms have existed for more than ten years. 22% have existed for between 6 and years and only 11% have existed for a period below six years. This is a clear indication that the mortgage sector has a strong base and its still growing since new firms are still joining the sector. Since most of the firms have been in operation for long these creates confidence to would be investors in mortgage backed securities and gives them a higher credit rate since the risk of the firms going under is low.

The research found out that 56% of firms were quoted in the NSE, while the remaining 44% were unquoted. In Kenya for any company to be quoted has to meet certain capital requirement currently 500m. It has also to operate within certain rules and regulations set by the capital markets authority (CMA). Also since all quoted firms are supposed to publish their financial statements, these allows would be investors to make informed decisions before investing in them. These firms can be able to issue MBS with minimum risk since investors will have confidence in them.

The research findings indicate that 67% of the mortgage firms have a capital of more than a billion shillings. 22% of the firms have capital between 800m and a billion, whereas the remaining 11% have capital of below 800 million. This means that the mortgage firms in Kenya have a strong capital base and if we go by the current rule of issuing corporate bonds of capital of 500m then 100% of the mortgage firms will qualify to issue the MBS.

The study revealed that locally owned mortgage firms claimed 56% of the total sector, whereas the partially owned (both locally and foreign) claimed 46%. In this sector none of the firms is foreign based. Since all the firms a local backing it will be easy for them to issue securities in the NSE.

The study also revealed that the shareholders were the main source of finance for the firms by 75% of the mortgage firms interviewed. The other source of funds was bank
loan which claimed 25%. The cost of these two major sources of funds is always very costly to the firm and if a cheaper source is identified then there is no reason why they cannot shift to the new source.

These mortgage firms revealed that given new alternative the can move to a new source of finance. 67% of the interviewed firms showed willingness to change, while only 33% were unwilling to change.

The research further revealed that 11% of the debts have a maturity of less than one year, 56% has a maturity of between one and three years. While the rest 33% have maturity of up to five years. This is a clear indication that our mortgage firms are using short term debt to finance long term debts. These is unhealthy to any organization which wants to grow therefore there is dire need for MBS which are long term sources.

The research findings indicate that 78% of the mortgage firms seek finances to expand their businesses and only 22% of the total seeks funds to pay off their debts. There is a clear indication that firms want higher returns by expanding their operations.

The study revealed that 67% of the interviewed firms have debt that is accruing interest at a rate of between 10% and 15% and 33% at the rate between 5% and 10%. This is a clear indication that our interest rates are too high. Most of the issued corporate bonds are around +1 of the treasury bills rate. Currently the rate is 6% plus 1 these will give a rate of 7% which is way below what the mortgage accruing rates are.

The study revealed that 67% of the interviewed mortgage firms were interest in issuing mortgage securities if they were introduced in the Kenyan market. Only 33% were not interested. If proper awareness of the product is well marketed to the firms the number of the firms interested will increase.

The research found out that 89% of the mortgage firms charge mortgage rate of above 15% and only 11% of the firms charge mortgage rates of between 10% and 15%. These high mortgage rates cannot be afforded by average common citizen. Therefore there is need to look for ways of bringing the interest rates down.

Due to strict appraisal systems by the mortgage firms, the research has confirmed that the default rates are low. 44% of the firms have a default rate of less than 10%. 45% have a
default rate of between 10% and 20% and only 11% have a rate above 20%. These clearly show that the risk of defaulting on mortgage backed security is low and the mortgage sector can sustain them.

The study revealed that 44% of the mortgage firms have mortgage loan portfolios in excess of two billions. 33% have portfolios between 1 and 2 billions whereas the rest have portfolios of between 750m and 1 billion. These loan portfolios are large enough to be securitized.

5.2 CONCLUSION.

The main focus of the research was to assess the factors that influence the development of secondary mortgage market in Kenya. The study revealed that the mortgage sector is still growing since some of the firms have been in operation for over 40 years. The research has revealed that the market has limited sources of finance to foster faster development in the sector.

The research has also shown the willingness of the mortgage firms to securitize their loan portfolios if introduced in the Kenyan market. It further revealed that the mortgage lending rate is high because the source of the firms finance is also high. The only remedy to these is source a cheaper source and the mortgage rates will go down.

It's evident from the research that the default rate of mortgage loans in Kenya is average mainly due to strict rules in appraisal process and debt monitoring. The total loan portfolio of the mortgage industry is the tune of billions. It evident from the study that this sector can sustain mortgage backed securities.

5.3 RECOMMENDATIONS.

From the findings its evident that these organizations can support the issue of mortgage backed securities (MBS) with the support of NSE, CMA, stockbrokers and investment banks. These will be the only solution to realize a vibrant secondary mortgage market in Kenya.
5.4 LIMITATIONS OF THE STUDY.

Firstly, the major limitation of this study was lack of enough resources to carry out a more detailed research. Also, time constraint hindered the researcher from enlarging the area of study beyond Nairobi.

Secondly, most of the mortgage firms are not registered under the central bank and therefore it’s hard to trace them.

Thirdly, due to use of questionnaires to collect the primary data, the weaknesses associated with this technique cannot be ruled out. In some cases the respondents had difficulty time in understanding certain questions and either left them blank or filled irrelevantly.

Fourthly, the current literature on MBS is not easily available in most libraries and these left the researcher to rely mainly on internet.

5.5 SUGGESTIONS FOR FURTHER RESEARCH.

The study concentrated in assessing the factors influencing the development of secondary mortgage market in Kenya. The research was a survey covering only one area there is need for a further detailed study to be conducted in other areas such as asset backed securities.
Dear Sir/Madam,

RE: REQUEST FOR RESEARCH DATA - MORTGAGE INSTITUTIONS.

I am a post graduate student at the University of Nairobi studying Masters of Business Administration (MBA) degree and specializing in finance. In partial fulfillment of the requirement of the stated degree, I am conducting a research entitled "The development of secondary mortgage market in Kenya: with special emphasis on mortgage backed securities".

You have been selected for this research. I would greatly appreciate if you complete the attached questionnaire. The information obtained will be purely used for academic purposes and the findings of the research shall be made available to you upon request.

Kindly avail any other information or comments not included in the questionnaire that you think is of importance to the research.

Thank you for your co-operation.

Yours faithfully,

Mbuvi Obed M.
MBA Student

Mr. Luther Otieno
Lecturer / Supervisor
Department of Accounting
University of Nairobi.

APPENDIX I
APPENDIX II

QUESTIONNAIRE ON THE DEVELOPMENT OF SECONDARY MORTGAGE MARKET IN KENYA. With special emphasis on mortgage backed securities (MBS).

1. Is your company quoted in the Nairobi Stock Exchange?

   YES ( )
   NO ( )

2. What is the capitalization of your company.

   Below kshs. 200m ( )
   Kshs. 201m to kshs. 400m ( )
   Kshs. 401m to kshs. 600m ( )
   Kshs. 601m to kshs. 800m ( )
   Kshs. 801m to kshs. 1b ( )
   Above 1b ( )

3. Number of years your firm has been in operation.

   1 to 5 Years ( )
   6 to 10 Years ( )
   11 to 20 Years ( )
   20 to 40 Years ( )
   Over 40 Years ( )

4. Is your firm
Locally owned ( )
Foreign owned ( )
Partly locally and partly foreign owned ( )

5. Does your firm sought funds externally?
   Yes ( )
   No ( )

6. If yes, what is the source of your funding?
   Sale of stocks ( )
   Bank loans ( )
   Bank overdraft ( )
   Shareholders capital injection ( )
   Others (specify) ( )

7. Would you be interested in other finance options?
   Yes ( )
   No ( )

8. If no Why?
   We are comfortable with the current finance arrangement ( )
   We do not require funds in the foreseeable future ( )
   Other (specify). ________________________________
9. What is the maturity period of the last debt you acquired

<table>
<thead>
<tr>
<th>Period</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1 month to 3 months.</td>
<td>( )</td>
</tr>
<tr>
<td>3 months to 1 years.</td>
<td>( )</td>
</tr>
<tr>
<td>1 year to 3 years.</td>
<td>( )</td>
</tr>
<tr>
<td>3 years to 5 years.</td>
<td>( )</td>
</tr>
<tr>
<td>Above 5 years.</td>
<td>( )</td>
</tr>
</tbody>
</table>

10. Who makes the decision on the sourcing of finances in your firm?

- Board of Directors
- Managing Director
- Overseas Head Office
- Head of Finance
- Others (specify)__________

11. Specifically for what purpose do you seek finances?

- For expansion of business
- To pay off debtors
- For our day to day expenses
- Others (specify)____________________

12. At what rate of interest is your current (or previous) debt accruing?

<table>
<thead>
<tr>
<th>Rate</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1% to 5%</td>
<td>( )</td>
</tr>
<tr>
<td>5% to 10%</td>
<td>( )</td>
</tr>
<tr>
<td>10% to 15%</td>
<td>( )</td>
</tr>
<tr>
<td>15% to 20%</td>
<td>( )</td>
</tr>
<tr>
<td>20% to 30%</td>
<td>( )</td>
</tr>
<tr>
<td>Above 30%</td>
<td>( )</td>
</tr>
</tbody>
</table>
13. Have you ever heard of other forms of financing
   Other than one you are currently on?

   Yes  (  )
   No   (  )

14. If Yes which ones have you heard about?

   Commercial paper  (  )
   Corporate Bond    (  )
   Off shore borrowing (  )
   Sale of stock      (  )
   Securitization     (  )
   Other specify__________________________

15. Where did you get to hear this from?

   My Bank  (  )
   My Stock Broker (  )
   Investment Adviser (  )
   Internet, Media (  )
   Others specify __________________________

16. Specifically have you ever considered securitizing your mortgage
    Loans as way of financing your capital expenditure.

   Yes   (  )
   No    (  )
17. What is your mortgage lending rate?

<table>
<thead>
<tr>
<th>Rate Range</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1% to 5%</td>
<td></td>
</tr>
<tr>
<td>5% to 10%</td>
<td></td>
</tr>
<tr>
<td>10% to 15%</td>
<td></td>
</tr>
<tr>
<td>15% to 20%</td>
<td></td>
</tr>
<tr>
<td>Above 20%</td>
<td></td>
</tr>
</tbody>
</table>

18. What is your mortgage loan default rate?

<table>
<thead>
<tr>
<th>Rate Range</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1% to 5%</td>
<td></td>
</tr>
<tr>
<td>5% to 10%</td>
<td></td>
</tr>
<tr>
<td>10% to 15%</td>
<td></td>
</tr>
<tr>
<td>15% to 20%</td>
<td></td>
</tr>
<tr>
<td>Above 20%</td>
<td></td>
</tr>
</tbody>
</table>

19. What is your mortgage loan portfolio?

<table>
<thead>
<tr>
<th>Portfolio Range</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than Kshs.50 million</td>
<td></td>
</tr>
<tr>
<td>Kshs. 50 m to 100 m</td>
<td></td>
</tr>
<tr>
<td>Kshs. 101 m to 500 m</td>
<td></td>
</tr>
<tr>
<td>Kshs. 501 m to 750 m</td>
<td></td>
</tr>
<tr>
<td>Kshs. 751 m to 1 b</td>
<td></td>
</tr>
<tr>
<td>Kshs. 1 b to 2 b</td>
<td></td>
</tr>
<tr>
<td>Above Kshs.2b</td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX III

LIST OF MORTGAGE COMPANIES

1. Savings & Loans
2. Housing Finance Co. of Kenya
3. East African Building Society
4. Family Finance Building Society
5. Barclays Bank
6. Standard Chartered Bank
7. Commercial Bank of Africa
8. Investment & Mortgages Bank
REFERENCES


