"A STUDY OF REVERSE MORTGAGE SCHEME IN INDIA"

A Project Report Submitted to the

In partial fulfillment of the requirements for the award of the Degree of

MBA

IN

[Finance]

SUBMITTED BY

NAME : ……..

ENROLLMENT NO : …….

UNDER SUPERVISION OF:

……

CERTIFICATE

This is to certify that **……..**, a student of …….. has completed project work on titled **"A STUDY OF REVERSE MORTGAGE SCHEME IN INDIA"** under my guidance and supervision.

I certify that this is an original work and has not been copied from any source.

Signature of Guide :_____

Name of Project Guide :_____

Date :_____

ACKNOWLEDGEMENT

With Candor and Pleasure I take opportunity to express my sincere thanks and obligation to my esteemed guide **……**. It is because of his indispensable and mature guidance and co-operation without which it would not have been possible for me to complete my project.

Finally, I gratefully acknowledge the support, encouragement & patience of my family, and as always, nothing in my life would be possible without God, Thank You!

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DECLARATION

I hereby declare that this project work titled **"A STUDY OF REVERSE MORTGAGE SCHEME IN INDIA"** is my original work and no part of it has been submitted for any other degree purpose or published in any other from till date.

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CHAPTER -1

INTRODUCTION TO TOPIC

Reverse Mortgage in India:

The concept of reverse mortgage, although new in India, is very popular in countries like the United States. Recently, National Housing Bank (NHB), a subsidiary of the Reserve Bank of India (RBI), released draft norms of reverse mortgage (the final guidelines are awaited). Following are some of the key features of the scheme from the draft norms.

1. Reverse Mortgage Loans (RMLs) are to be extended by Primary Lending Institutions (PLIs) viz. Scheduled Banks and Housing Finance Companies (HFCs) registered with NHB. The PLIs reserve their discretion to offer Reverse Mortgage Loans. Prospective borrowers are advised to consult PLIs regarding the detailed terms of RML as may be applicable to them.

2. Eligible Borrowers:

- Should be Senior Citizen of India **above 60 years of age**.
- Married couples will be eligible as joint borrowers for financial assistance. In such a case, the age criteria for the couple would be at the discretion of the PLI, subject to at least one of them being above 60 years of age. PLIs may put in place suitable safeguards keeping into view the inherent longevity risk.
- Should be the owner of a self- acquired, self occupied **residential property (house or flat) located in India**, with clear title indicating the prospective borrower's ownership of the property.
- The residential property should be **free from any encumbrances.**

- The residual life of the property should be at **least 20 years**.
- The prospective borrowers should use that residential property as permanent primary residence. For the purpose of determining that the residential property is the permanent primary residence of the borrower, the PLIs may rely on documentary evidence, other sources supplemented by physical inspections.

3. Determination of Eligible Amount of Loan:

- The amount of loan will depend on market value of residential property, as assessed by the PLI, age of borrower(s), and prevalent interest rate.
- The table given hereunder may serve as an indicative guide for determining loan eligibility :

Age	**Loan as proportion of Assessed Value of Property**
60 – 65	40%
66 – 70	50%
71 – 75	55%
Above 75	60%

- The above table is indicative and the PLIs will have the discretion to determine the eligible quantum of loan reckoning the 'no negative equity guarantee' being provided by the PLI. The methodology adopted for determining the quantum of loan including the detailed tables of calculations, the rate of interest and assumptions (if any), shall be clearly disclosed to the borrower.
- The PLI may consider ensuring that the equity of the borrower in the residential property (Equity to Value Ratio - EVR) does not at any time during the tenor of the loan fall below 10%.

- The PLIs will need to re-value the property mortgaged to them at intervals that may be fixed by the PLI depending upon the location of the property, its physical state etc. Such revaluation may be done **at least once every five years;** the quantum of loan may undergo revisions based on such re-valuation of property at the discretion of the lender.

4. Nature of Payment:

Any or a combination of the following:

- Periodic payments (monthly, quarterly, half-yearly, annual) to be decided mutually between the PLI and the borrower upfront
- Lump-sum payments in one or more trenches
- Committed Line of Credit, with an availability period agreed upon mutually, to be drawn down by the borrower

Lump-sum payments may be made conditional and limited to special requirements such as medical exigencies, home improvement, maintenance, up-gradation, renovation, extension of residential property etc. ***The PLIs may be selective in considering lump-sum payments option and may frame their internal policy guidelines, particularly the eligibility and end-use criteria. However, these conditions shall be fully disclosed to potential borrowers upfront.***

It is important that nature of payments be decided in advance as part of the RML covenants. PLI at their discretion may consider providing for options to the borrower to change.

5. Eligible End use of funds

The loan amount can be used for the following purposes:

- Up gradation, renovation and extension of residential property.

- For uses associated with home improvement, maintenance/insurance of residential property
- Medical, emergency expenditure for maintenance of family
- For supplementing pension/other income
- Repayment of an existing loan taken for the residential property to be mortgaged
- Meeting any other genuine need

  Use of RML for speculative, trading and business purposes shall not be permitted

6. Period of Loan: Maximum 15 years.

7. Interest Rate: The interest rate (including the periodic rest) to be charged on the RML to be extended to the borrower(s) may be fixed by PLI in the usual manner based on risk perception, the loan pricing policy etc. and specified to the prospective borrowers. Fixed and floating rate of interest may be offered by the PLIs subject to disclosure of the terms and conditions in a transparent manner, upfront to the borrower.

8. Security:

- The RML shall be secured by way of mortgage of residential property, in a suitable form, in favour of PLI.
- **Commercial property will not be eligible for RML.**

9. Valuation of Residential Property:

- The residential property should comply with the local residential land-use and building bye laws stipulated by local authorities, with duly approved lay-out and building plans.
- The PLI shall determine the Market Value of the residential property through their external approved valuer(s). In-house professional valuers may also be used subject to adequate disclosure of the methodology.

- The valuation of the residential property is required to be done at such frequency and intervals as decided by the PLI, which in any case shall be **at least** once every five years. The methodology of the revaluation process and the frequency/schedule of such revaluations shall be clearly specified to the borrowers upfront.
- PLIs are advised not to reckon expected future increase in property value in determining the amount of RML. Should the PLIs do so in their best commercial judgment, they may do so under a well defined Policy approved by their Board and based on professional advice regarding property prices.

10. Provision for Right to Rescission:

As a customer-friendly gesture and in keeping with international best practices, after the documents have been executed and loan transaction finalized, Senior Citizen borrowers may be given up to three business days to cancel the transaction, the "right of rescission,". If the loan amount has been disbursed, the entire loan amount will need to be repaid by the Senior Citizen borrower within this three day period. However, interest for the period may be waived at the discretion of the PLI.

11. Loan Disbursement by Lender to Borrower:

- The PLI will pay all loan proceeds directly to the borrower, except in cases pertaining to retirement of existing debt, payments to contractor(s) for the repairs of borrower's property, or payment of property taxes or hazard insurance premiums from the borrower's account set aside for the purpose.
- In case the residential property is already mortgaged to any other institution, the PLI may, at its discretion, consider permitting use of part proceeds of RML to prepay/repay the existing housing loan. The loan amount will be paid directly to

that institution to the extent of the loan outstanding with that institution with a view to release the mortgage.

- *Periodicity:* The loan will be extended as regular monthly, quarterly, half-yearly or annual periodic cash advances or as a line of credit to be drawn down in time of need or in lump sum.
- The PLI will have the discretion to decide the mode of payment of the loan including fixation of loan tenor, depending on the state and market value of the property, age of the borrower and other factors. The rationale behind the decision of mode of payment and fixation of the loan tenor shall be clearly disclosed to the borrowers.

12. Closing:

The PLIs will provide in writing, a fair and complete package of reverse mortgage loan material and specimen documents, covering inter-alia, the benefits and obligations of the product. They may also consider making available a tool kit to illustrate the potential effect of future house values, interest rates and the capitalization of interest on the loan.

The closing costs may include the customary and reasonable fees and charges that may be collected by the PLIs from the borrower. The cost for any item charged to the borrower shall not normally exceed the cost paid by the lender or charged to the lender by the provider of such service(s). Such items may include:

- Origination, Appraisal and Inspection Fees. The borrower may be charged pro-rata origination, appraisal and inspection fees by the PLI /appraiser.
- Verification Charges of external firms
- Title Examination Fees
- Legal Charges/ Fees

- Stamp Duty and Registration Charges
- Property Survey and Valuation charges

A detailed schedule of all such costs will clearly be specified and provided to the prospective borrowers upfront by the PLIs.

13. Settlement of Loan

- The loan shall become due and payable only when the last surviving borrower dies or would like to sell the home, or permanently moves out of the home for aged care to an institution or to relatives. Typically, a "permanent move" may generally mean that neither the borrower nor any other co-borrower has lived in the house continuously for one year or do not intend to live continuously. PLIs may obtain such documentary evidence as may be deemed appropriate for the purpose.
- Settlement of loan along with accumulated interest is to be met by the proceeds received out of Sale of Residential Property.
- The borrower(s) or his/her/their estate shall be provided with the first right to settle the loan along with accumulated interest, without sale of property.
- A reasonable amount of time, say up to 2 months may be provided when RML repayment is triggered, for house to be sold.
- The balance surplus (if any) remaining after settlement of the loan with accrued interest, shall be passed on to the estate of the borrower.

14. Prepayment of Loan by Borrower(s)

- The borrower(s) will have option to prepay the loan at any time during the loan tenor.
- There will not be any prepayment levy/penalty/charge for such prepayments.

15. Loan Covenants:

- The borrower(s) will continue to use the residential property as his/her/their primary residence till he/she/they is/are alive, or permanently move out of the property, or cease to use the property as permanent primary residence.
- *Non-Recourse Guarantee:* The PLIs shall ensure that all reverse mortgage loan products carry a clear and transparent 'no negative equity' or 'non-recourse' guarantee. That is, the Borrower(s) will never owe more than the net realizable value of their property, provided the terms and conditions of the loan have been met.
- *Loan Agreement:* The PLIs shall enter into a detailed loan agreement setting out therein the salient features of the loan mortgage security and other terms and conditions, including disbursement and repayment of the loan, in addition to the usual provisions, which are ordinarily incorporated in a mortgage loan document.
- The loan agreement may also include a provision that the borrower shall not make any testamentary disposition of the property to be mortgaged and even if it does so, it would be subject to the mortgage created in favour of the lending institution. In such a case, the borrower shall make a testamentary disposition of the mortgaged property in favour of any of his/her relatives, subject to the discharge of the mortgage debt by such legatee and a statement that the heirs shall not be entitled to challenge the validity of the mortgage as also the right of the mortgagee to enforce the mortgage in the event of death of the borrower unless the legal representative is willing to undertake the responsibility for discharging in full the amount of loan and accrued interest thereof.
- In addition, the PLI may also consider obtaining a Registered Will from the borrower stating, inter-alia, that he/she has availed of RML from the PLI on

security by way of mortgage of the residential property in favour of the PLI, meaning thereby that in the event of death of the borrower (and co-borrower, if any), the mortgagee is entitled to enforce the mortgage and recover the loan from the sale proceeds on enforcement of security of the mortgage. The surplus, if any, has to be returned to the heirs of the deceased borrower(s).

- The PLIs may consider taking an undertaking from the prospective borrower that the "Registered Will" given to the PLI is the last "Will", prepared by him/her at the time of availment of RML facility as per which the property will vest in his/her spouse name after his/her demise. The borrower will also undertake not to make any other 'Will' during the currency of the loan which shall have any adverse impact on the rights created by the borrower in the PLI's favour by way of creation of mortgage on the immoveable property mentioned under the loan documentation for covering loan to be allowed to his/her spouse and interest thereon, even after the borrower's death.
- The PLI will ensure that the borrower(s) has insured the property against fire, earthquake, and other calamities.
- The PLI will ensure that borrower(s) pay all taxes, electricity charges, water charges and statutory payments.
- The PLIs will ensure that borrower(s) are maintaining the residential property in good and saleable condition.
- The PLI may reserve the option to pay for insurance premium, taxes or repairs by reducing the homeowner loan advances and using the difference to meet the obligations/expenditures.
- The PLI reserves the right to inspect the residential property/premises or arrange to have the residential property/premises inspected by its representatives any time

before the loan is repaid and borrower(s) shall render his/her/their cooperation in respect of such inspections.

16. Title Indemnity/Insurance

- The PLI shall obtain legal opinion for ensuring clarity on the title of the residential property.
- The PLI shall also endeavor to obtain indemnity on title related risks, as and when such indemnity products are available in India.

17. FORECLOSURE:

- The loan shall be liable for foreclosure due to occurrence of the following events of default.
    - If the borrower has not stayed in the property for a continuous period of one year
    - If the borrower(s) fail(s) to pay property taxes or maintain and repair the residential property or fail(s) to keep the home insured, the PLI reserves the right to insist on repayment of loan by bringing the residential property to sale and utilizing the sale proceeds to meet the outstanding balance of principal and interest.
    - If borrower(s) declare himself/herself/themselves bankrupt.
    - If the residential property so mortgaged to the PLI is donated or abandoned by the borrower(s).
    - If the borrower(s) effect changes in the residential property that affect the security of the loan for the lender. For example: renting out part or all of the house; adding a new owner to the house's title; changing the house's zoning classification; or creating further encumbrance on the property

either by way taking out new debt against the residential property or alienating the interest by way of a gift or will.

- Due to perpetration of fraud or misrepresentation by the borrower(s).
- If the government under statutory provisions, seeks to acquiring the residential property for public use.
- If the government condemns the residential property (for example, for health or safety reasons).

18. Option for PLI to Adjust Payments:

- The PLI shall have the option to revise the periodic/lump-sum amount at such frequency or intervals based on revaluation of property, which in any case shall be at least once every five years.
- Borrower shall be provided with an option to accept such revised terms and conditions for furtherance of the loan.
- If the Borrower does not accept the revised terms, no further payments will be effected by the Lender. Interest at the rate agreed before the review will continue to accrue on the outstanding amount of the loan. The accumulated principal and interest shall become due and payable.

19. Counseling and Information to Borrowers:

- The PLIs will observe and maintain high standards of conduct in dealing with the Senior Citizens and their families and treat them with special care.
- The PLIs shall clearly and accurately disclose the terms of the RML without any ambiguity.
- The PLIs should clearly explain to the prospective borrowers the terms and conditions of RML, the methodology followed for valuation of the residential

property, the method of determination of eligible quantum of loan, the frequency of re-valuation and review of terms and all related aspects of the RML.

- The PLIs may suggest to the Senior Citizens to nominate their 'personal representatives' usually a close relative who the PLI can contact in the event of any potentialities.
- The PLIs may counsel the prospective borrowers about the possible impacts to the borrowers due to adverse movements in interest rates and property price fluctuations.
- The PLIs shall clearly specify all the costs to the Borrower(s) that are associated with the transaction.
- The PLIs shall in no way assert or imply to the borrower(s) that the borrower(s) is/are obligated to purchase any other product or service offered by the PLI or any other associated institution in order to obtain a reverse mortgage loan.
- Take reasonable steps to check out the background and procedures of third parties before accepting referrals of business from them, and refuse to accept referrals from those that are found unacceptable. Members shall disclose to clients any third party with a financial interest in the reverse mortgage transaction.
- Overall, the PLIs shall treat the Senior Citizen borrower fairly.

As the old saying goes, *"there are no free lunches in life"*. In case of reverse mortgage, there exist a few guidelines, which may not 'appeal' to the house property owner i.e. the borrower.

1. As per the guidelines, the maximum loan tenure can be 15 years. So, if the borrower outlives the loan tenure, he can continue to stay in the house. However he will no longer be eligible for any payments from the bank/HFC.

2. The bank/HFC shall have the option to revise the periodic/lump sum amount at such frequency or intervals based on revaluation of property, or at least once every 5 years. The borrower will be provided the option to accept the revised terms and conditions to continue the loan. However, if he refuses to accept the revised terms and conditions, no further payments shall be made by the bank/HFC. Interest at the rate agreed before the review will continue to accrue on the outstanding loan amount.

3. Since the reverse mortgage can be either at fixed or floating rates, it will be prone to the interest rate movements. Hence, in the scenario when interest rates are moving northwards, a floating rate reverse mortgage would add to the borrower's liability.

4. Under the reverse mortgage, the legal heirs of the owner are not entitled to take control over the mortgaged property up to the extent of the outstanding loan. They are required to first repay the outstanding loan amount along with the interest to stake a claim on the property.

5. The banks/HFCs at their discretion may levy penalty or other charges on the prepayment of loan. So, if the borrower or his heirs wish to prepay the loan amount, they may have to bear an additional cost.

The most important advantage offered by the reverse mortgage scheme is that despite mortgaging the house, the house owner retains its ownership, is entitled to live in the same throughout his lifetime and also has access to a regular income stream, which can help meet his day-to-day needs. From the banks/HFC's perspective, the mortgage on the property in its favour ensures that there is no scope for default.

Having said that, individuals who wish to opt for the reverse mortgage scheme would do well to acquaint themselves with the nitty-gritties of the guidelines. Also, the final guidelines will aid in providing more clarity to individuals who wish to participate in the reverse mortgage scheme.

INDIAN MARKET POTENTIAL

India-specific Characteristics of Relevance to RM

- There are no universal old age social security related benefits. Only about 10% of the active working population is covered by formal schemes. This would substantially enlarge the potential target market for RM: 'house-rich, cash-poor'.
- A much lower proportion of urban households, and by implication, less scope for RM.
- A much larger proportion of elders co-living with their family members of subsequent generations and hence less scope for RM
- A possibly stronger bequeath motive, reducing the scope for RM.
- A possibly higher real rate of appreciation of real estate and housing prices, making RM more attractive to the lender.
- Widespread under valuation of real estate properties to accommodate transactions involving unaccounted money and evasion of taxes on property and real estate transactions
- Complexity, variety and location specific variations in types of home ownership.
    a. *Benami* holdings/ 'Irrevocable power of attorney'
    b. Leasehold/ freehold
    c. Land use conversion regulations
    d. Floor space regulations

e. Rent/ tenancy controls

f. Disposal of ancestral property

- Absence of competitive suppliers for immediate life annuity products. This, in turn, is a consequence of

  a. Lack of data on old age mortality rates

  b. Lack of long-term treasury securities for managing interest rate risks of annuity providers

- The fledgling nature of the secondary markets for mortgage and securitization of mortgage loans

- India specific legal and taxation issues

  a. License/ Permission required under insurance/ banking regulation for offering RM

  b. Income tax treatment for RM lender and borrower

  c. Capital gains on property

  d. Reporting and provisioning by the lender as per banking/ insurance regulation

  e. Seniority of RM claims vis-à-vis other secured lenders

  f. Status of RM loan in case of insolvency

Old Age Population

Though the Indian population is **still comparatively 'young'**, India is also 'ageing'. Some demographic projections for India indicate that

- The number of elderly (>60 yrs) will increase to 113 million by 2016, 179 million by 2026, and 218 million by 2030. Their share in the total population is projected to be 8.9 % by 2016 and 13.3% by 2026. The dependency ratio is projected to rise from 15% as of now to about 40% in the next four decades
- The percentage of >60 in the population of Tamil Nadu and Kerala will reach about 15% by 2020 itself!
- Life expectancy at age 60, which is around 17 yrs now, will increase to around 20 by 2020

SOURCES OF INCOME SUPPORT FOR THE ELDERLY IN INDIA

As of 1994, the estimated percentage among the elderly, dependent on various sources of income was as follows:

Source	**Men**	**Women**	**All elderly**
Pensions/Rent	9-10%	5%	7-8%
Work	65%	15%	40%
Transfers Of which, from Children	30% 22%	72% 58%	52% 40%

In addition, as per a survey of the National Sample Survey Organization (NSSO) in 1994, less than 4% of the elderly lived alone. A 1995-96 National Sample Survey of the elderly reported that about 5% of them lived alone, another 10% lived with their spouses only and another 5% lived with relatives/ non-relatives, other than their own children. In other words, co-residence with children and other relatives is predominant.

However, the following aspects are worrisome:

- The extent and adequacy of support, especially for widows
- Vulnerability of such support to shocks to family income
- As incomes and life expectancy rose in the now developed countries, simultaneously there was a decline in co-residence rates and intergenerational support. It may happen in India too
- Strains due to demographic trends seem inevitable: fewer children must support parents for longer periods of time. In a recent survey covering 30 cities, 70% of the respondents did not expect their children to take care of them after retirement.
- Job related migration of youth within the country and emigration.

POTENTIAL MARKET SEGMENTS:

Age Group

Above 58 years, assuming 58 is the typical retirement age. Older the individual, more attractive will be RM. Additional considerations will include the minimum age specified for preferential treatment as 'senior citizens' in matters such as income tax or the recently introduced *Varishta Bima Yojana*.

High House Equity

The current monthly annuity payout by LIC under its immediate annuity product *Jeevan Akshay* is 844 Rs for a single premium payment of Rs 1 lakh, for a person aged 65[1]. The annuity will be lower in case of joint life or annuity certain options. If we were to use a minimum of Rs 5000 as the monthly annuity that makes RM a worthwhile activity, we

need an RM loan of around Rs 6 lakhs. Assuming a loan to home value ratio of 60%, this implies a current market value of Rs. 10 lakhs.

Low Current Incomes Relative to Desired Standard of Living

Amongst such households, we are looking for those whose current levels of income are insufficient to afford their desired standard of living. The salary replacement rates suggested in the literature, for maintaining the same standard of living after retirement as before, is around 60%. This implies a pre-retirement take home salary or income (after-tax) of around Rs 9000-10000 a month. A potential RM borrower would be one who had such a pre-retirement income but no substantial pension benefits. Therefore, he would have been employed in the private sector or self-employed.

Long Tenure at Current Home

RM is attractive to a borrower especially when he values continued stay in his current residence and plans to do so for a long term into the future. This is likely when he has already stayed in his current home for a relatively longer period- say a minimum of 10 years. Additional indicators for such a desire could be a person currently resident in one's home town/ state.

Lack of Other Supports

If such an individual is living alone, as in the case of a widower or widow, RM can make a substantial contribution to his/ her standard of living. Alternatively, the next generation may be living far away, either in India or abroad.

No Significant Bequeath Motive

Literature suggests that there is a basic conflict between taking an RM loan and a desire to bequeath property to one's heirs. If an elderly homeowner has no children, this question may not arise. Otherwise, we need to look for attributes indicating a weak

bequeath motive. For example, in the Indian context, it could mean 'no sons'. Or it could be that the entire next generation of the family has migrated to another metro or abroad with no intention of coming back. They may be much better off than the older generation and may not value bequests, if any.

Independence and Quality of Life

A potential RM borrower must be an elderly person who values his financial independence. He must be interested in maintaining his desired quality of life rather than curtailing consumption for lack of current cash income. This implies he must be mentally prepared to consider borrowing in old age, let alone through innovative financial products like RM. This implies certain minimum education and exposure to financial savings/ assets/ markets.

SOURCES OF INDIAN DATA RELEVANT TO RM:

It is very obvious that the target segment for RM is very atypical- 'the generation past' rather than the much discussed 'generation next'. Therefore it is not surprising not much data of specific relevance to RM is available. Basically we need information on the following: characteristics of households primarily of the elderly- age profile, current market value of the house, current monthly incomes and expenditures (including health care), other financial assets and sources of support, desires for bequests and so on. We also need reliable projections on mortality rates among the elderly, appreciation rates in property values in the long run, long-term interest rates etc.

Housing Stock Owned and Occupied by the Elderly

The Census of 2001 has published a lot of data on housing conditions. However, the tables published so far do not serve our purpose:

- No valuation of house property has been attempted (though understandably). Houses have been classified as 'Good', 'Liveable' or 'Dilapidated'; 'owned' or 'rented'; size in terms of number of rooms; urban/ rural etc.
- Even though data on the age of the head of the household has been reportedly collected, such tables have not been published yet.

We came across another recent survey, namely the National Family Health Survey (NFHS-2), conducted in 1998-99, involving a large national sample of almost 92000 households. This survey's focus was on the family health status, especially of women and children. However, according to this survey,

- The age of the head of the household was 60+ in 19.2% (22.4%) of the urban (rural) households.
- About 12% of men and 43% of women above 50 were widowed.

Unfortunately, this survey does not provide any information on type of home ownership, value of houses etc.

The latest published study on the elderly in India is by researchers from the Centre for Development Studies.

- Projections in this study, based on census data till 1991, indicate that urban areas in the states of Kerala, Tamil Nadu, Goa and the union territory of Chandigarh

may provide the maximum immediate potential for RM. This is based on proportion of elderly and literacy levels.

- This study also projects the population of 'old-old', i.e., above 70 yrs, the prime target for an RM loan.
- As reported in this study, the findings of an all India survey of the elderly conducted by the NSSO in 1986-87 amongst 50000 households are as follows:

    a. Amongst the elderly, about 9.52% (12.43%) males and 0.8% (1.43%) females in urban (rural) areas lived alone.

    b. Amongst the elderly, only about 0.70% (0.82%) males and 0.48% (0.63%) females in urban (rural) areas owned any property.

- As a part of this study, a special "Ageing Survey" was conducted amongst 2253 persons above 60, in the fours states of Kerala, Tamil Nadu, Karnataka and Orissa. The reported findings of relevance to RM are as follows:

    a. There is a striking difference in widowhood across elderly males and females: 14% amongst males and 68% in females.

    b. About 14% of the elderly live in single member or two-member households.

    c. Amongst the elderly, around 90% of the males and 37% of females, were 'designated' as head of the household

    d. Amongst the elderly designated as heads of households, about 70% of males and 50% of females actually had ownership of the house.

e. The findings on health status are as follows:

- As per self assessment, 8.7% of males and 10.6% of females said they are 'unhealthy'
- About 35% of both males and females reported some 'perennial' health problem. As many as 50% of males and 59% of females reported to have been bed-ridden at least once during the last one year.
- About 34% reported vision related, 11% hearing related and 17% walking related disabilities.

According to a report, appropriate housing for the elderly in India has a high-growth potential. This report says, "A study conducted by the Technical Committee on Population, Planning Commission shows that 52 per cent of elderly people in urban areas are living alone. There is a large segment of active old population who is living alone and is on the lookout for relaxed lifestyle".

Old Age Mortality

Reliable data on mortality rates at various ages, especially amongst those above 60 is absolutely crucial for designing any RM product. Unfortunately, the only published data available is the one on annuitant lives published by LIC. This is based on the experience of LIC in their Group annuity schemes with 'return of capital on death' option, during the period 1996-98. This table covered male lives only as data on female lives was inadequate.

As this table does not cover experience on individual life annuities and female lives, this is not a reliable basis for designing an RM product involving significant mortality risks. More importantly, this cannot be compensated by any study in the near future. This is also one of the reasons behind the reluctance of private insurance companies in India to offer immediate life annuity products.

Long term Interest Rates

As discussed earlier, the loan limit or the annuity amount under an RM has to be decided on the basis of expected long-term interest rates. This represents a commitment by the lender, even though interest accumulates on a floating rate basis. Therefore, any RM lender should have access to reliable models for projecting long-term interest rates. The zero-coupon yield curve released by the NSE on a daily basis is the most widely available set of rates.

Real Estate/ Housing Appreciation Rates

Unlike interest rates, projections/ assumptions have to be made for specific cities/ localities/ types of housing etc. Though credit rating agencies have recently begun rating real estate developers, no published geography specific inflation indices of property values are currently available, to the best of our knowledge.

Legal, Regulatory, Taxation and Transaction Cost Related Issues

The specific product features and required supply-side alliances to offer RM loans have to be designed with a thorough understanding of the following:

- Entry restrictions under banking and insurance laws
- Capital adequacy, reporting and provisioning by lenders as required by banking/ insurance regulation

- Legal protection for the RM lender against claims from other secured creditors and under insolvency laws
- Tax treatment of interest and capital gains in the hands of borrower and lender.
- Protection to the lender to ensure 'arm's length' pricing at the time of disposal of property
- Location specific real estate related laws and transaction costs, including title search, property valuation, stamp duties etc.
- Counselling services to potential borrowers, by independent agencies to protect adverse publicity from legal suits.
- Absence of secondary markets, mortgage backed securitization or insurance for RM loans

HOW REVERSE MORTGAGE WORKS:

Mr. Patil has retired after what can be called a very fulfilling career with a leading engineering company. His only daughter is married and well settled in Bangalore. He owns a large house in Thane -- worth about Rs 80 lakh (Rs 8 million), but he has limited savings (including PPF and EPF) of Rs 10 lakh (Rs 1 million) to generate any major income.

He is not expecting any pension either. His worry now is to pay for his modest monthly expenses of Rs 20,000. His financial assets can at best generate Rs 10,000 per month for him and the income thus generated will not keep pace with inflation -- meaning that after five years, when he will require Rs 30,000 per month, while his financial assets will still generate only Rs 10,000 per month.

The only option he had earlier been to rent his house and move to a smaller house himself or to sell his house altogether and invest the proceeds to earn a higher monthly income. Either way, in his old age, he will be forced to look around for accommodation and keep on worrying about the rising rents -- not a very happy prospect.

This is where reverse mortgage can be of great value.

Budget 2007 amongst other things gave a green signal to the launch of Reverse Mortgage -- a widely used instrument in the developed world by the elderly to derive cash flows from their owned house.

The popularity of the instrument lies in that it converts an illiquid asset -- the house -- into liquid cash flows for the owner, typically a senior citizen. A more attractive feature is that senior citizens can continue to live in that house even after drawing cash-flows from it.

Here is how it works. Reverse mortgage as its name indicates operates in a manner opposite to that of the typical mortgage such as a home loan. In a typical mortgage, we borrow money in lump-sum right at the beginning and then pay it back over a period of time. In our payback -- the EMI -- a portion goes towards paying the interest and the remaining goes towards paying back principal.

All along, we pledge the asset -- namely the home we have bought with the loan -- to the bank. This asset is the security against which the bank is lending to us. In reverse mortgage, we pledge a property we already own (with no existing loan outstanding against it). The bank in turn gives us a series of cash-flows for a fixed tenure. These can be thought of as reverse EMIs.

There are various forms of reverse mortgage available in the developed countries. The specific format National Housing Board (the facilitator for housing finance in India) is promoting is one in which the tenure is 15 years and the owner of the house and his/her

spouse continue to live in the house till their death -- which can occur later than the tenure of the reverse mortgage.

Simply put, in case of Mr and Mrs Patil, if they were to opt for reverse mortgage for tenure of 15 years, they will get annuity (the reverse EMI) from bank for 15 years. After that, the annuity payments stop.

However, they continue to live in the house. Assume that Mr Patil dies after 17 years. Mrs Patil can still live in the house till she is alive. After her death, the bank will give their heirs two options -- settle the overall outstanding loan and retain the house or the bank will sell the house, use the proceeds to settle the outstanding loan and give the rest to the heirs.

The bank bears the risk that the outstanding will exceed the market value of property then and will not ask for the difference from the heirs.

The key question is -- how much of an annuity income can my house generate using reverse mortgage? The banks have so far not indicated which interest rates they will use to determine the EMI -- however, we can safely assume that it will not exceed the interest rates used for loan against property -- which is currently in the region of 12-14%.

Second important variable is the loan to value ratio. Most loans against property work at 60% loan to value ratio -- i.e. by pledging a Rs 1 crore (Rs 10 million) property, you can get a Rs 60 lakh (Rs 6 million) loan. Some banks are however designing reverse mortgage products with a higher loan to value ratio -- as much as 90% in some cases.

The specific annuity paid out also depends on the age of the home owner. Higher the age, higher the annuity everything else being constant. For simplicity consider a 60-year-old home owner taking reverse mortgage with loan to value ratio of 80% and an interest rate of 12%.

The annuity from reverse mortgage works out to be roughly ~Rs 160 per lakh of property value. Hence for Mr Patil, with a property valued at Rs 80 lakh, the annuity he can expect will be in the range of Rs 12,800 per month.

Coupled with his income from financial assets, he can continue to live comfortably with no cutback on lifestyle.

DIFFERENT REVERSE MORTGAGE OFFERINGS IN INDIA:

OFFERING BY SBI:

The State Bank of India (SBI) started offering reverse mortgage products for senior citizen on October 12, 2007. Joint loans are given if the spouse is alive and is over 58 years of age.

The loan is offered by all branches of SBI from October 12, 2007. The loan is offered at an interest rate of 10.75% pa and is subject to change at the end of every five years along with revaluation of security. Every five years, bank may even re-adjust the loan installments, if it is needed, depending on market conditions and loan status.

The Chief General Manager for Personal Banking (SBI), Mr. Sangeet Shukla told that there is no upper limit of amount of loan. Also, the maximum period for availing this benefit is 15 years.

Under this loan, borrowers can be avail payment against the security of their houses on monthly or quarter installments or either he/she can go for as a lump sum payment at the beginning.

During their lifetime, the borrower does not have to pay the loan and will continue to stay in their house. Thereafter, either the legal heirs can repay the loan and redeem the property but if this option is not exercised, bank will sell the property and liquidate the loan. Surplus, if any, will be passed on to the legal heirs.

SBI Reverse Mortgage Loan (RML) –

No.	Parameter	Details
(1)	Objective of the scheme	To provide a source of additional income for senior citizens of India who own self-acquired and self-occupied house property in India.
(2)	Eligibility	
	a. No. of borrowers	Single or jointly with spouse in case of a living spouse.
	b. Age of first borrower	Above 60 years
	c. No. of surviving spouses on the date of sanction of loan	Should not be more than one. Borrowers will have to give an undertaking that they will not remarry during the currency of the loan. If the borrowers choose to remarry, the loan will be foreclosed.
	d. Age of spouse	Above 58 years
	e. Residence	•Borrower should be staying at **self-acquired** and **self owned** house /flat against which loan is being raised, as his **permanent primary residence.** •Mobile/Telephone/Credit Card bills/ Certificate from the Housing Society where the borrower is staying / Affidavit made before the Executive Magistrate may be accepted as proof of residence. •Borrowers will be required to inform the Bank when they cease to use this residence as their permanent residence.
	f. Title of the Property	•Borrowers should have a clear and transferable title in their names. •Title verification and search report for a period of **30 years** will be required to be obtained from the Bank's empanelled advocate at borrowers' cost.
	g. Title of the property and number of borrowers.	Case– Title in single name and loan availed jointly with spouse. Title holder should make a Will in favor of the other spouse. The Will should confirm that this is the last Will and that it super cedes all earlier Wills, if any. The borrower to undertake that no fresh Will shall be made during the currency of the loan.
	h. Encumbrances	The property should be free from any encumbrances. However in case of property purchased by availing Home Loan from SBI and mortgaged to SBI, it will be considered for RML, subject to closure of the Home Loan account out of the proceeds of RML.
	i. Residual Life of property	Should be at least 20 years in case of single borrower and 25 years in case of spouse being below 60 years of age. Certificate from empanelled engineer/architect will be required

		to be obtained for this purpose, in addition to valuation of property.
(3)	Security	The RML shall be secured by way of equitable mortgage of residential property.
(4)	Tenor	Age of the **younger** of the borrowers between 58 and up to 68 years:15 years Age of the **younger** of the borrowers above 68years:10 years OR till death of the borrower(s), whichever is earlier.
(5)	Disbursement	By credit to an SB account in the joint names of the borrowers operated by E or S.
(6)	Periodicity of availing loan	1.Monthly / quarterly payments 2.Lumpsum payment
(7)	Quantum of loan	The loan amount would be 90% of the value of property. Loan amount would include interest till maturity. The loan installments payable to the borrower(s) would be as under for a loan amount of Rs.1 lac (at interest rate of 10.75% p.a.): **Loan Tenor (years)** / **10** / **15** Monthly installments (Rs.) / 468 / 225 Quarterly installments (Rs.) / 1,423 / 687 Lump sum payment (Rs.) / 36,022 / 21,619 The **maximum** loan amount is kept at Rs.1 Crore (monthly payment Rs.22,500/- for 15 years) and **minimum** Rs.3 lacs (monthly payment Rs.675/- for 15 years). Example of arriving at the monthly installments: Property value:Rs.10 lacs Qualifying loan amount (90% of property value):Rs.9 lacs Tenor:15 years Monthly instalment:Rs. 225 x 9 = Rs.2,025/-
(8)	Purpose of Loan	Supplementing income, any personal expenses, house repairs, etc. Loan amount should not be used for speculative, trading and business purposes.
(9)	Repayment/Settlement	•The loan shall become due and payable only when the last surviving borrower dies or opts to sell the home, or permanently moves out of the home for to an institution or to relatives. Typically, a "permanent move" may generally mean that neither the borrower nor any other co-borrower has lived in the house continuously for one year or do not intend to live continuously. Bank may obtain such documentary evidence as may be deemed appropriate for the purpose.

		•Settlement of loan along with accumulated interest is to be met by the proceeds received out of sale of residential property or prepayment by borrowers and his next of kin. •The borrower(s) or his/her/their legal heirs / estate shall be provided with the first right to settle the loan along with accumulated interest, without sale of property. •A reasonable amount of time, say up to 6 months, may be provided when RML repayment is triggered, for house to be sold. •The balance surplus (if any), remaining after settlement of the loan with accrued interest and expenses, shall be passed on to the borrower or the estate of the borrower/legal heirs. •Borrowers will be required to submit annual life certificates in the month of November every year. This certificate will also include clauses regarding marital status, and permanent residence of the borrowers, in addition to the balance confirmation as on 31st October of that year. •List of legal heirs will be obtained at the time of sanction of loan. With a view to avoiding disputes at the time of settlement of loan amount by legal heirs, specific instructions about inheritance of the property and payment of balance amount, if any, of the sale proceeds after settling the Bank's dues, will be required to be part of the borrowers' Will.
(10)	Foreclosure	The loan shall be liable for foreclosure due to occurrence of the following events of default. o If the borrower(s) has/have not stayed in the property for a continuous period of one year o If the borrower(s) fail(s) to pay property taxes or maintain and repair the residential property or fail(s) to keep the home insured, the Bank reserves the right to insist on repayment of loan by bringing the o Residential property to sale and utilizing the sale proceeds to meet the outstanding balance of principal and interest. o If borrower(s) declare himself/herself/themselves bankrupt. o If the residential property so mortgaged to the Bank is donated or abandoned by the borrower(s). o If the borrower(s) effect changes in the residential property that affect the security of the loan for the lender. For example: renting out part or all of the house by creating a tenancy right; adding a new owner to the house's title; changing the house's zoning classification; or creating

		further encumbrance on the property either by way of taking out new debt against the residential property or alienating the interest by way of gift or will. o Due to perpetration of fraud or misrepresentation by the borrower(s). o If the government under statutory provisions, seeks to acquire the residential property for public use. o If the government condemns the residential property (for example, for health or safety reasons). o Any other event such as re-marriage of the borrower(s) etc which shall have an adverse impact on the loan settlement prospects. o Borrowers do not accept the revised terms on revaluation of property and interest reset at the end of every 5 years from sanction. o Any violation of the terms and conditions of RML.
(11)	Pre-payment of loan	• The borrower(s) will have option to prepay the loan at any time during the loan tenor. • There will be no prepayment penalty.
(12)	Valuation/Revaluation of property and option for the Bank to adjust payments.	• After the initial valuation to determine the loan amount, subsequent revaluations will be done at intervals of 5 years. • The Bank shall have the option to revise the periodic/lump-sum amount every 5 years along with revaluation. In the scenario of fall in property prices, the Bank may decide to revise the amount at any time earlier than 5 years. At every stage of revision, it should be ensured that the Loan to Value ratio does not exceed 90% at maturity. • If the Borrower does not accept the revised terms, no further payments will be affected by the Bank. Interest at the rate agreed before the review will continue to accrue on the outstanding amount of the loan. The accumulated principal and interest shall become due and payable as mentioned in clauses 9 and 10.
(13)	Interest Rate	**10.75% p.a.** (Fixed) subject to reset every 5 years.
(14)	Processing fee	0.50% of the loan amount, minimum Rs.500/- and maximum of Rs.10,000/-
(15)	Right of Rescission	As a customer-friendly gesture and in keeping with international best practices, after the documents have been executed and loan transaction finalized, borrowers will have right of rescission up to **seven days** to cancel the transaction. If the loan amount has been disbursed, the entire loan amount will need to be repaid by the borrower within this period.

		However, interest for the period may be waived. Processing fee shall not be refunded in such cases.
(16)	Insurance and maintenance of house property	•The house property will be insured by the borrower at his cost against fire, earthquake and other calamities. •The borrower shall ensure to pay all taxes, charges etc. •Bank reserves the right to pay insurance premium, taxes, charges etc. by reducing the loan amount to that extent. •The borrower shall maintain the property in good condition.
(17)	Operational issues:	
	a. Type of facility	Non-renewable Overdraft without ledger folio charges.No cheque book / debit card will be linked to this account.
	b. Availability of product	All branches.

DHFL and **Punjab National Bank** are the other competitors along with the SBI.

REVERSE MORTGAGE LOAN – "PNB BAGHBAN" **FOR SENIOR CITIZENS**

PNB is the first Public Sector Bank to come out with a Reverse Mortgage concept based product for senior citizen titled "PNB Baghban". The product addresses one of the very important requirements of the society in the fast changing culture of Indian society. The salient features of the product are given hereunder:

Objective

To address the financial needs of senior citizens owning self occupied property (house), for leading a decent life.

Eligibility

The residential house/flat owner, who is resident of India, of the age of 60 years& above, is eligible to raise the loan under this Scheme.

Qualifying/Maximum Amount of Loan/Margin

The qualifying amount of loan will depend on the realizable value of residential property, after maintaining margin of 20%. The maximum qualifying amount of loan, along with interest, shall be restricted to Rs.100 lac.

Rate of Interest

10% p.a. (fixed) subject to re-set clause of five years (as applicable for Housing Loan Borrowers)

Disbursement/tenor of loan

The loan shall be extended as regular fixed monthly payments during the loan period. i.e. 10-20 years or till the death of the last surviving spouse, whichever is earlier. Depending on the age of the beneficiary a chart containing the amount of monthly installments (calculated on 'Reverse Annuity Mortgage" basis) to be paid to the senior citizen borrower for different tenors of loan per lac of rupees is as under :-

Qualifying Loan Amount (Rs.1.00 lac)

Tenor (yrs.)	10	11	12	13	14	15	16	17	18	19	20
Monthly Installment(Rs.)	490	420	360	315	275	240	215	190	170	150	135

Security

The loan shall be secured by way of equitable Mortgage of self acquired / self occupied Residential Property in favour of the Bank. The property to be revalued every 5 years and monthly loan installment to be re fixed keeping in view applicable ROI and valuation of property.

Repayment of Loan

Settlement of loan, along with accumulated interest, to be met by the proceeds received out of sale of residential property and any surplus to be paid to heirs. The loan will, as such, become due for recovery and payable six months after death of the last surviving spouse. However the legal heirs/legatee of the deceased borrowers will be given first option to settle the loan, along with the accumulated interest, without sale of the property.

Upfront fee/Documentation Charges

Upfront fee – Amount equivalent to half+ month's loan installment subject to Maximum of Rs.15, 000/-.

Documentation Charges/Inspection Charges - Nil

Right of Rescission

After the loan is sanctioned senior citizen borrower(s) shall be given upto 10 days time to relook into his requirements and if he so wishes to cancel the transaction for any reason whatsoever.

REVERSE MORTGAGE BY DHFL

India's second-largest private housing finance company, Dewan Housing Finance Corporation Limited (DHFL), is the first off the block In India with a reverse mortgage scheme.

The scheme, called 'Saksham' is targeted at retired senior citizens above 60 years of age. The scheme is similar to a housing loan except that in a home loan the borrower pays a fixed EMI to the lending institution, while in reverse mortgage the lender pays the borrower a fixed sum of money on a monthly (or quarterly) basis, the total payment being equal to the value of the property and the interest on the loaned amount.

After the death of the borrower and the borrower's spouse, the housing company sells the property to recover the amount paid out along with interest at a rate similar to interest on housing loans.

The scheme is designed to supplement the monthly income of senior citizens. This scheme is offered to retired people above the age of 60 years who own property and have been living in it for at least one year.

The loan amount is sanctioned based on the:

- Age of the borrower
- Average value of the property
- Rate of interest on the loan
- The payment method chosen by the borrower

The eligibility for a reverse mortgage loan is simple. The borrower should be 60 years of age, living in self-owned property, which is free of any other encumbrances, and is an approved construction. The amount loaned would depend on the estimated value of the property (minus the interest cost) its condition and life. The loan does not apply to ancestral property.

Saksham allows customers and their spouses to live in the property as long as they are alive, without the fear of eviction even after the tenure expires. The surplus amount is then paid to the legal heirs of the borrower. The legal heirs also have the option to re-possess the property after the demise of both customers and their spouses.

According to Shivkumar Mani, head, marketing, DHFL, "As per the guidelines laid down by NHB, DHFL is the first company to launch this scheme in India. This unique scheme is designed to help senior citizens to sustain their lifestyle and also help them maintain their monthly expenditure without being dependent on anyone. It is a social security scheme designed to benefit the senior citizens post retirement."

DHFL will first launch Saksham in Mumbai and its adjoining areas before making it available nationally.

REVERSE MORTGAGE BY UNION BANK

Union Bank of India on 4 April, 2008 launched its "Union Reverse Mortgage Scheme", a loan product designed exclusively for the benefit of senior citizens. The bank is the fourth

in the country to launch the scheme through which the loan seeker need not worry about re-payment and be assured of monthly income; the Bank's Bangalore Zone Field General Manager L N V Rao. The loan will be available to homeowners who are 60 years of age or more and can be availed jointly with the spouse, provided he or she is more than 55 years old, he said. Unlike other loan products, there is no income criteria to be met for availing loan. On the demise of the last surviving owner, the legal heirs have the right to repay. If they do not wish to do so, the bank will sell the property, set off the loan outstanding.

The surplus, if any, will be given to legal heirs. The minimum loan amount that can be availed is Rs one lakh and maximum Rs 50 lakh, Rao said. Seventy per cent of the assessed value of the building would be the loan amount.

The maximum tenor of a loan under this scheme is 15 years. The loan carries a fixed interest of 10 per cent per annum.

Typically, for a loan of Rs 10 lakh, the monthly pay off to the owner on ten year loan will be Rs 4880 and on a 15 year loan, it will be Rs 2410, Rao said. The property is revalued every five years and adjustments will be made to the monthly payments accordingly, he said. Rao said the borrower has to comply with certain conditions which include that he bear the cost of property insured against fire, earthquake and other calamities. If the borrower ceases to stay in the house which has been mortgaged, the loan will be cancelled.

LIC HOUSING TO COMBINE REVERSE MORTGAGE WITH INSURANCE PLAN:

LIC Housing Finance is looking to combine its reverse mortgage plan with a whole-life annuity provided by a life insurer. This will allow home owners to use their property to generate income for life as against for only 15 years as provided under the present reverse mortgage schemes.

The housing finance arm of the Life Insurance Corporation on Thursday announced the launch of its reverse mortgage scheme. This product is available across the country for senior citizens above 60 years. The loan can be availed of either singly or jointly with a spouse, if the spouse is also above 60.

The shortcoming of most reverse mortgage schemes is that it is available only for 15 years. With the increased life expectancy, most borrowers are expected to outlive the term of their reverse mortgage. Under present schemes while income from the reverse mortgage dries up after 15 years, the borrowers end up with the lender having a lien on their property.

LIC Housing Finance chief executive SK Mitter told ET that the company was in talks with insurance companies to work out a scheme where home equity could be used to buy an annuity that provides income for the entire life span of the borrower. “We are working out how to merge an annuity plan with this product” said Mr Mitter.

The reverse mortgage loan by LICHF will be offered at a fixed interest rate, subject to reset every five years. Under the scheme, senior citizens can avail of the loan either on a monthly payment or on a lump sum payment or a combination of both. The property evaluated for the loan should have at least 20 years of residual life. The maximum loan

balance shall be 90% of the value of the property and the loan balance will include interest till maturity.

The amount of the loan will take into consideration the property value, age of the borrower, and the rate of interest. The loan will become due and payable only when the last surviving borrower dies or opts to sell the home, or permanently moves out of the home.

RISKS TO RM LENDERS:

Szymanoski is a good starting point to appreciate the risks faced by an RM lender. These risks are at the heart of the reluctance of lenders to get into RM lending, in the absence of public policy support. The principal and *unique* problem facing the lender is that of predicting accumulated future loan balances under an RM, at the time of origination. The uniqueness is because RM is a 'rising debt' instrument. Since RM is a non-recourse loan, the lender has no access to other properties, if any, of the borrower. Even if the collateral property appreciates in value, it might still be lower than the loan balance at the time of disposal of the property. There are three basic sources of this risk:

Mortality Risks

This is the risk that an RM borrower lives longer than anticipated. The lender might get hit both ways: he has to make annuity payments for a longer period; and the eventual value realized might decline. However, this risk is usually 'diversifiable', if the RM lender has a large pool of such borrowers. Possibility of adverse selection (of predominance of relatively healthier borrowers) is counterbalanced by the possibility that even borrowers with poor health may be attracted by RM's credit line or lump sum options.

However, there is no literature on one possible source of systematic risk. Since RM is projected to substantially improve the monthly income and/ or liquid funds of the RM borrowers, would it not itself result in a systematically higher life expectancy amongst them than otherwise? Perhaps this lacuna is due to the relatively short experience with RM so far.

Interest Rate Risks

Given that the typical RM borrower is elderly and is looking for predictable sources of income/ liquidity, RM loans promise a fixed monthly payment / lump sum / credit line entitlement. However, for the lender, this is a long-term commitment with significant interest rate risks.

While fixing the above, the lender has to account for a risk premium and thus can offer only a conservative deal to the borrower. This interest rate risk is not fully diversifiable within the RM portfolio.

Most of the RM loans accumulate interest on a floating rate basis to minimize interest rate risks to the lender. However, since there are no actual periodic interest payments from the borrower, these can be realized only at the time of disposal of the house, if at all.

Property Market Risk

This risk may be partly diversifiable by geographical diversification of RM loans. However, property values may be a non-stationary time series.

Others have pointed out additional aspects of these risks:

- RM can be considered as a package loan with a 'crossover' put option to the borrower to sell his house at the accumulated value of the RM loan at the (uncertain) time of repayment. If this option can be valued, it can be suitably

priced and sold in the market. However, unlike in the case of forward mortgages, markets for resale, securitization and derivatives based on RMs are non-existent or non-competitive. Small market size and predominance of government backed RM insurance may dissuade potential entrants. This impedes the flow of funds to finance RM loans.

- For the lender, both the interest and any shared appreciation component added to the loan balance are taxable as current income even though there is no cash inflow.
- RM loans found takers amongst lenders only after the availability of default insurance under the HECM programme. Even then, in most of the RM loans, interest accumulates at a floating rate linked to one-year treasury rates. Boehm and Ehrhardt illustrate why. Basically they demonstrate that
    - A fixed interest rate RM carries an interest rate risk *several orders of magnitude higher* than a conventional coupon bond or regular mortgage. It could be especially high at origination (as many as 100 times) and continues to be higher throughout.
    - The small initial investment under an RM is very deceptive. RM creates very large off-balance sheet liabilities, if market rates rise above the rate assumed under RM.
    - If interest rate risk is also incorporated into capital adequacy norms, this will mean disproportionate (to current asset value) additional capital commitments to support RM lending
    - This is because the typically small RM loan value at origination is essentially the difference between the value of a relatively long duration asset (loan repayment) and a relatively shorter duration annuity liability.

- Compared to a fixed interest RM that is non-callable by the borrower, a callable RM carries very high risks for the lender. The fact that most of the RMs accumulate at floating rates and that fresh RM loans involve significant upfront costs mitigate this risk considerably .

Moral Hazard Risk

Once an RM loan is taken, the homeowners may have no incentive to maintain the house so as to preserve or enhance market value. This might be especially true when the loan balance is more or less sure to cross the sale value. Since the benefit would accrue mainly to the lenders and the cost borne by the homeowner, it is perhaps not sensible to assume otherwise. Miceli and Sirmans model this risk. They conclude that in a competitive market, the lenders will respond by either reducing the loan amount or by charging a risk premium in interest or both. However this fear of moral hazard in maintenance does not square with the findings of Leviton discussed earlier, on the intensity of the attachment of the elderly to their homes.

The more important point is that some time during the tenure of an RM, an elderly borrower may simply be physically incapable of maintaining the home as per loan requirements. Though the RM loan contract provides for foreclosure under such conditions, this seems to be impractical and sure to result in litigation and bad publicity for the lender. These problems have begun to crop up already.

Shiller and Weiss broaden the scope in two dimensions:

- In addition to RM, a range of home equity conversion products

- Beyond mere maintenance, they consider incentives to improve home values, to drive a hard bargain at the time of sale, and cheat the lender at the time of appraisal before granting the loan (adverse selection) or through disguised or complex sale arrangements to achieve undeclared gains at the cost of the lender.

They advice caution:

- Experience to date may not be a reliable guide to the future as most of the experimental schemes are in their infancy
- Losses due to moral hazard may take many years to develop
- Competitive pressures for achieving volumes in future may increase this risk

Liquidity Risks

In RM loans where the borrower draws down on his loan through a credit line, there is a risk of sudden withdrawals.

CONSIDERATIONS IN PRODUCT DESIGN:

In this section, we focus on aspects of product design likely to be attractive from the perspective of a potential RM customer and a lender.

Customer Perspective

- Empathetic counseling from professionally competent and independent counselors- NGOs like Help Age, Dignity Foundation, Indian Association of Retired Persons (IARP) etc., may be interested in providing such services

- Ratio of RM Loan limit to current market value of property: This will be a function of borrower's age, projected long term interest rates and property appreciation rates
- Flexibility in draw downs: The line of credit with interest credit for unutilized portion is the most popular choice in the U.S context. The same might be true in India too. Cash may be withdrawn as and when needed, especially large amounts to meet medical and other emergencies, in contrast to a regular monthly amount. However this is vulnerable to myopic withdrawals or under pressure from relatives.
- Minimum possible RM closure costs
- Clarity in borrower's responsibility for property maintenance and paying property taxes, insurance etc. Strong legal protection against foreclosure and/ or forcible eviction based on fine print may be desirable. Alternatively, the RM lender should be willing to take over such a responsibility against deduction from RM loan limit/ annuity.
- Clarity in tax treatment of RM receipts, accrued interest, capital gains etc.
- Option to refinance in case interest rates decline substantially.
- Protection against lender defaults- though not very critical.

Lender Perspective

The major concern is with respect to the risks of mortality (longevity), interest rates and property appreciation rates. There is no simple way to explore these except through financial modeling. Some alternatives for limiting risks in the learning phase have been suggested:

- Purchasing a life annuity through an insurance tie-up so that a part of the mortality risk is transferred to the insurer with the necessary core competence. Their expertise may also be used to decide on the lump sum RM loan.
- Based on the U.S experience so far, it seems better for the lender to assume responsibility for property maintenance/ taxes against deduction from RM loan limits/ annuity payments.
- Though insurance against default risk is unlikely in India, an RM lender has to charge an equivalent additional interest spread of 2-2.5%, if not more, as a default risk premium
- It seems worthwhile to explore and lobby for concessional refinance for RM loans from agencies like the National Housing Bank and for lower RM related transaction taxes.
- Given the requirement of property market related expertise at the micro-level, it might be worthwhile to focus on only one or two cities in the initial phase.
- There might be a need for tie-ups with agencies for various services- property valuation, title search, property maintenance and so on.

BANK OVERVIEW:

ICICI Bank is India's second-largest bank with total assets of Rs. 4,062.34 billion (US$ 91 billion) at March 31, 2011 and profit after tax Rs. 51.51 billion (US$ 1,155 million) for the year ended March 31, 2011. The Bank has a network of 2,752 branches and about 9,225 ATMs in India, and has a presence in 19 countries, including India.

ICICI Bank offers a wide range of banking products and financial services to corporate and retail customers through a variety of delivery channels and through its specialised subsidiaries in the areas of investment banking, life and non-life insurance, venture capital and asset management.

The Bank currently has subsidiaries in the United Kingdom, Russia and Canada, branches in United States, Singapore, Bahrain, Hong Kong, Sri Lanka, Qatar and Dubai International Finance Centre and representative offices in United Arab Emirates, China, South Africa, Bangladesh, Thailand, Malaysia and Indonesia. Our UK subsidiary has established branches in Belgium and Germany.

ICICI Bank's equity shares are listed in India on Bombay Stock Exchange and the National Stock Exchange of India Limited and its American Depositary Receipts (ADRs) are listed on the New York Stock Exchange (NYSE).

Board of Directors:

Mr. K. V. Kamath, Chairman

Mr. Sridar Iyengar

Dr. Swati Piramal

Mr. Homi R. Khusrokhan

Mr. Arvind Kumar

Mr. M.S. Ramachandran

Dr. Tushaar Shah

Mr. V. Sridar

Ms. Chanda Kochhar,

Managing Director & CEO

Mr. N. S. Kannan,

Executive Director & CFO

Mr. K. Ramkumar,

Executive Director

Mr. Rajiv Sabharwal,

Executive Director

AWARDS:

- ICICI Bank won the "Best Bond House (India) 2011", by IFR Asia
- ICICI Bank awarded the Best Bank (India) by Global Finance
- ICICI Bank won the "Century International Quality Era Award" at Geneva. The award recognizes commitment towards Quality, Excellence, Customer Satisfaction, Leadership and Strategic Planning as established in the QC 100 model of Total Quality Management (TQM).
- For the second year in a row, Ms. Chanda Kochhar, Managing Director & CEO, is in the Power List 2012 of 25 most influential women professional in India, by India Today.

- Ms. Chanda Kochhar, Managing Director & CEO, is amongst the nine Indian women to be named in the Forbes magazine's inaugural 'Asia Power Businesswomen list'
- Mr. N.S.Kannan, Executive Director & CFO, received the "Best CFO", in the Banking / Financial Services category by CNBC - TV 18.
- ICICI Bank was recognized for the first Credit Default Swap (CDS) deal in India at the Fimmda annual conference in Kuala Lumpur.
- Ms. Chanda Kochhar, Managing Director & CEO was awarded the "CNBC Asia India Business Leader Of The Year Award". She also received the "CNBC Asia's CSR Award 2011

CHAPTER -2

THEORETICAL PERSPECTIVE

I have reviewed the under noted literatures to get the insight of the scheme. I have gone through the various books, journals, magazines and websites. Some of the data from which will be quoted in the project. The book "Reverse Mortgages: Cash for the rest of your life" has been written by Mr. Greg Patti, which was published in 2005. In his book Mr. Patti has explained how Reverse Mortgage Scheme spread in western world as "Seniors" want live their life comfortably without losing their hard earned and constructed homes.

In "Modern Banking Theory & Practices" D. Muralidharan, the author of the book has clearly stated that what is the present aspect and future prospect of the reverse mortgage in India. He has stressed on the point that why the reverse mortgage is not so popular in India as in western countries.

To gather the various statistical data, I have referred magazines like Pratiyogita Darpan, June, 2008 edition, in which the future aspect of the scheme is explained.

Numerous websites have also been referred for up to date progress and data collection regarding the scheme. Especially the www.wikipedia.org has played an imminent role in defining the basic term related to the reverse mortgage and therefore enabling me to understand the pros and cons of the same.

I have also referred my own bank's wave site i.e. www.allahabadbank.com for the purpose of comparative study with other lending institutions like State Bank of India, Life

Insurance Corporation of India and Others. Wave sites like www.mint.com, www.bankbazar.com etc has helped a lot to find out the current on going scenario and present position of reverse mortgage in India.

Further, journals like India Insurance Report Series, Industrial Economics Volume 40 have been studied in depth to gather the data related to the scheme.

Thomas J. Miceli 2003: This paper develops a theoretical model of the problem of maintenance risk in reverse mortgages (RMs) and home equity conversion instruments generally. By maintenance risk, we refer to the incentive homeowners will have to reduce maintenance expenditures as their equity in the house falls during the term of the RM. The underlying reason for this tendency is the limited liability feature of RMs, given that a borrower's obligation to the lender at. maturity is limited to the value of the house.
The results of the model show that lenders will respond to this problem either by limiting the amount of RM loans to guarantee that maintenance risk is not a threat, or by charging an interest rate premium to cover the expected cost of default. Unfortunately, there do not exist data to test the importance of maintenance risk as a possible limitation on the extent of the RM market.

Nandinee K. Kutty 2009: this paper investigates the scope for alleviating poverty among elderly home-owners in the US by means of reverse mortgages. A reverse mortgage is a loan secured against the home equity owned by the borrower. This loan does not require monthly repayment and the elderly borrower is allowed to use the home as a principal residence for as long as she wishes. We compute monthly payments that can be obtained by elderly home-owners under a reverse mortgage by simulating the tenure plan of the Home Equity Conversion Mortgage (HECM) reverse mortgage product which is sponsored by the US Department of Housing and Urban Development. This study utilises

data from the National File of the American Housing Survey of 1991. We estimate that 621 820 elderly home-owners in poverty could be raised above the poverty line if they obtained a reverse mortgage under the HECM tenure plan. These households constitute 29 per cent of all poor elderly home-owners. There appears to be considerable scope for alleviating poverty among elderly home-owners through reverse mortgages. We estimate that the poverty rate of elderly households in occupied units (both renters and owners) can be reduced by three percentage points (from 17 per cent to 14 per cent) by means of reverse mortgages. It is estimated that if home-owners in poverty had obtained reverse mortgages in 1991, the poverty rate for all elderly persons that year, 12.4 per cent, would have reduced by 2.4 percentage points to 10 per cent.

According to Bradford Case1, Ann B. Schnare 2003: This paper describes and evaluates the Home Equity Conversion Mortgage (HECM) insurance demonstration, designed to encourage the development of private reverse mortgage programs by insuring lenders against the risks associated with new mortgage lending programs and with reverse mortgages in particular. The paper evaluates demand for the program by analyzing the attributes of participating borrowers, their properties and the types of payment options chosen. It also presents several observations regarding participation by the financial community in the HECM demonstration, required counseling and legal and regulatory issues that may hamper the growth and development of reverse mortgage programs in general.

The findings suggest strong demand for reverse mortgages among “house-rich, cash-poor” elderly homeowners, either to supplement inadequate current incomes or to provide a reserve against unexpected lump-sum expenses. The flexible design of the HECM program addresses a wide variety of borrower financial needs, even though it imposes

higher costs on lenders and servicers. The continued growth of the program, however, is hindered by a shortage of qualified housing counselors in some areas, as well as by a variety of legal and regulatory barriers.

Accoring to Thomas Davidoff & Gerd Welke in 2004: This paper explains why selection in the US reverse mortgage market to date has been advantageous rather than adverse. Reverse mortgages let "house rich, cash poor" older homeowners transfer wealth from the wealthy period after their home is sold to the impoverished period before. Near absence of demand seems to contradict life cycle consumption theory and has been blamed in part on large up-front fees. These fees, in turn, are justified by adverse selection and moral hazard concerns related to length of stay in the home. In fact, reverse mortgage loan histories and the American Housing Survey reveal that single women who are reverse mortgage borrowers depart from their homes at a rate almost 50 percent greater than observably similar non-participating homeowners. This surprising fact appears to arise from the phenomenon that the types of people who wish to take equity out of their homes through reverse mortgage borrowing are also likely to take out the remaining home equity by selling their homes. This mechanism is similar to the heterogeneity in risk aversion proposed by de Meza and Webb (2001) to rationalize advantageous selection in insurance markets. Further results suggest that future declines in price appreciation may generate sufficient moral hazard as to undermine the advantageous selection seen to date.

According to Sally R. Merrill1, Meryl Finkel & Nandinee K. Kutty in 2003:

A variety of reverse mortgage loan programs have been available to elderly households for over a decade. The number of unrestricted reverse mortgage loans issued by the private sector has been quite small. About 12,000 loans have been issued through mid-

1992. Some researchers take this to mean that the size of the potential market for reverse mortgages is also quite small. Other researchers claim that current low levels of activity reflect supply and demand problems, but that the potential market is in fact quite large.

This paper uses American Housing Survey (AHS) data to estimate the potential size of the market for unrestricted reverse mortgages. The 1989 national AHS shows that there are over twelve million elderly homeowners (age 62 and over) who own their homes free and clear. Depending on their income, age and the level of home equity, the group of households most likely to benefit from reverse annuity mortgages is considerably smaller. As one approach to defining a lower bound of the estimate of potential beneficiaries from reverse mortgages, we count the number of homeowners in a prime group consisting of the older elderly, aged 70 or above, with an annual income of $30,000 or less, with home equity between $100,000 and $200,000, who have lived in their homes for over ten years. We estimate that there are about 800,000 elderly households in this prime group. For such households, reverse mortgage payments could represent a substantial percentage increase in income; other definitions of target groups can also be explored using the tables provided.

The paper uses the 1985 through 1988 AHS Standard Metropolitan Statistical Area (SMSA) surveys to identify areas that have a large number of elderly homeowners in the prime target group, and in which these homeowners represent a large fraction of the elderly homeowner population. These locations are likely targets for introduction of reverse mortgage products because any campaign can be targeted towards a high concentration of likely eligible beneficiaries.

According to Christopher J. Mayer, Katerina V. Simons in 2003:

Housing wealth constitutes most of the non-pension wealth of the elderly population. This study analyzes the potential of reverse mortgages to increase the income and liquid wealth of the elderly by identifying households with relatively high levels of housing equity. Because this article looks at the whole distribution of elderly households and considers debt as well as income, it finds a larger potential market for reverse mortgages than previous studies.

Calculations from the 1990 Survey of Income and Program Participation and Census population estimates show that over six million homeowners in the United States could increase their effective monthly income by at least 20% by using a reverse mortgage. Of these, more than 1.3 million have no children. Furthermore, a reverse mortgage would allow over 1.4 million poor elderly persons to raise their incomes above the poverty line.

Edward J. Szymanoski Jr. in 2003: This article analyzes the risks involved with reverse mortgage insurance and explains the pricing model developed for the Home Equity Conversion Mortgage (HECM) demonstration. The paper demonstrates how borrower longevity, interest rates and property value changes all affect pricing, and why the HECM model focuses on property value as the primary source of uncertainty. It goes on to explain why a random walk specification was chosen to forecast property values, and how the principal limit factors, which determine cash payments to borrowers in the HECM program, are calculated.

According to Kee-Lee Choua, Nelson W.S. Chow in 2005:

The reverse mortgage plan has been proposed as a viable solution to improve or maintain the economic status of older adults who are “house-rich but cash-poor”. The objectives of

the current study were: (1) to find out the percentages of the middle-aged (aged between 45 and 59) homeowners in Hong Kong who would consider applying for the reverse mortgage plan when they retired or became older and (2) to identify socio-demographic, economic and health-related characteristics that were significantly related to the willingness to consider applying for the reverse mortgage plan. In a random sample of 1867 Hong Kong middle-aged adults, 663 of them owned their self-occupied flats. Approximately, 11%±2.4% ($p<0.05$) of these home-owners definitely or probably would consider to apply for such plan if it was available in Hong Kong local banks. Moreover, using logistic regression analyses, we found that childlessness and possession of stocks, bonds or funds were positively related to the willingness to consider applying for the plan and the amount of financial asset (excluding their self-occupied properties) was negatively associated with that willingness. Results suggest that the reverse mortgage may be another feasible option to secure the retirement income for the next cohort of older adults in the coming two decades

Tax Treatment of Reverse Mortgage Loan

Though the receipts of the Reverse Mortgage Loan in various countries are tax free, the treatment of the same in India is still under consideration along with the concept itself. Although a handful of Financial Institutions have initiated the facility of Reverse Mortgage in India, the National Housing Bank is endeavoring towards crystallizing its concept and scheme. Reverse Mortgage was introduced for the first time by the Hon'ble Finance Minister while presenting Budget for 2007-08. The modalities in relation to taxability of the payments to be received under the Reverse Mortgage are yet to be considered and have to be worked upon. However, the thrust of the considerations and

deliberations shall focus on imposing no burden of tax on the borrower(s) as the nature of the Reverse Mortgage Loan is on the lines of a welfare loan for the Senior Citizens.

A Reverse Mortgage is an excellent financial planning tool for older homeowners to supplement their retirement income, pay for healthcare costs, make home improvements, buy a second home, and/or establish an emergency fund, while staying in their home. The Reverse Mortgage Loan may be used anyway the borrower(s) wishes as it is his money and his house. So modern wisdom rightfully says, one can have the cake and eat it too.

A SWOT ANALYSIS ON REVERSE MORTGAGE LOANS:

The draft operational guidelines circulated by National Housing Bank (NHB), lays down the various aspects of reverse mortgage loans for senior citizens. Under this scheme, any senior citizen owning unencumbered residential property in India can mortgage such property for a loan, to tide over expenses in their twilight years. Here's a SWOT analysis of the same.

Strengths

The senior citizens are entitled to regular cash flows at their choice - monthly, quarterly, half yearly and annually.

The loan is given without any income criteria at an age where normal loans are not available.

No loan servicing or repayment required during the lifetime of borrower and spouse.

If the borrower dies during the period, the spouse will continue to get the loan amount for 15 years.

Tax treatment of a RML will be as loan, not income, so no tax will be payable on the regular cash flows.

The borrower and their spouse can continue to stay in the house till both die.

Heirs of the borrower will be entitled to get the surplus of sale value of the property.

Borrower/heir can get mortgage released by paying loan with interest without having to sell property at any time. Prepayment of loan is allowed.

NHB to guarantee obligation of banks/housing finance companies to pay the committed loan amount as regular sums over a period of time.

Reassessment of property value will be done periodically, or at least once every 5 years.

Borrower can cancel the mortgage within three days of approval/disbursement, subject to return of loan amount.

Weaknesses

This loan product has a maximum tenure of only 15 years. If the borrower outlives this period, the regular cash flows will stop.

Basis of property valuation is not clear.

Requirement of clear title to property in the name of the borrower to get the loan.

Three days period to cancel loan is too less. Should be at least 15 days to go through the fine print.

Various fees to be added to borrowers liability, which can be quite substantial.

Opportunities

Partial substitute for a social security scheme for senior citizens.

Longevity increasing with nuclear families. However, medical expenses and cost of living going up, increasing the need for additional income in old age.

Most Indians have strong preference for own home. Therefore many eligible citizens may opt for the scheme.

Quantum of loan can increase favourably for borrower on revaluation of property.

Threats

Property valuations are ambiguous.

There is a non-recourse guarantee, which means that loan plus interest should never exceed realisable value of property. In case of fall in property value or loan with interest exceeding assessed property value, banks may resort to strong-arm tactics to force the borrowers to move out, if they live too long after the loan period is over.

Rate of interest is at the discretion of lender. Any increase in the rate, if floating, will increase the burden of the borrower. Lender has discretion to raise loan amount on revaluation. However, if it does not do so, borrower doesn't get loan according to proper value of property. Lender has right to foreclose loan by forcing sale of property if borrower doesn't pay for insurance, property taxes or maintain and repair house. Can lead to further harassment.

This product seems very good in theory and can be of great help to senior citizens who can live in their own houses and yet avail of a loan against it. However, the norms need to be fine-tuned and made watertight so that these borrowers are not harassed or short-changed in their old age.

CHAPTER -3

OBJECTIVES OF THE STUDY

The objective decides where we want to go, what we want to achieve and what is our goal or destination. The objective of "Study of Reverse Mortgage in India" is to -

1. Analyze the future prospects of this lending scheme in India.
2. Find out the Risks associated with it in current scenario (Recovery after global economic meltdown).
3. To find out the welfare gain to senior citizens from Reverse Mortgage Scheme.

CHAPTER -4

RESEARCH METHODOLOGY

Research methodology in a way is a written game plan for conducting research. Research methodology has many dimensions. It includes not only the research methods but also considers the logic behind the methods used in the context of the study and complains why only a particular method of technique has been used. The basic task of research is to generate accurate information for use in decision making. Research can be defined as the systematic and objective process of gathering, recording and analyzing data for aid in making business decisions.

As the project involves analyzing of financial structure, the research is exploratory in nature, covering financial parameters and come of the important ratios to carry out research.

DATA COLLECTION METHOD:

The data will be collected using both by primary data collection methods as well as secondary sources.

(i) **PRIMARY DATA**- Most of the information will be gathered through primary sources. The methods that will be used to collect primary data are books, research, newspapers, wave sites etc.

Books: -

- Reverse Mortgage Essentials by Steve Lowsons
- Reverse Mortgage and Linked Securities by Vishal Bhuyan
- Modern Banking Theory & Practice by D. Muralidharan

News Papers: -

- Business Standard, Lucknow and Meerut Edition
- Economic Times, Meerut Edition

Magazines: -

- India Insurance Report Series
- Industrial Economics Volume 40

Web Sites: -

- www.allahabadbank.com
- www.statebankofindia.com
- www.pnb.co.in
- www.lic.co.in

(ii) **SECONDARY DATA** – Interviews, questioners, fill ups, different nationalized banks, borrowers, financial consultants etc. Secondary data of this project on Reverse Mortgage will be collected from -

- Interviews from different categories of target group.
- Questionnaires will be arranged to get the data.
- Fill ups
- Different nationalized banks
- Borrowers
- Financial consultants

TIME FRAME OF THE DATA COLLECTION:

2 Months

METHOD OF SAMPLING:

The technique used for conducting the study was Convenience Sampling Technique as sample of respondents was chosen according to convenience.

STASTICAL TOOLS:

The tools used in this study were MS-EXCEL, MS-WORD. MS-EXCEL was used to prepare pie- charts and graphs. MS-WORD was used to prepare or write the whole project report.

REPORT WRITING AND PRESENTATION

Report Encompasses – Charts, diagrams

METHOD YOU WILL USE TO CLASSIFY DATA:

Data Analysis & Interpretation – Classification & tabulation transforms the raw data collected through questionnaire in to useful information by organizing and compiling the bits of data contained in each questionnaire i.e., observation and responses are converted in to understandable and orderly statistics are used to organize and analyze the data.

- Simple tabulation of data using tally marks.
- Calculating the percentage of the responses.
- Formula used = (name of responses / total responses) * 100

NUMBER OF RESPONDENTS

Total samples of 50-75 respondents were contacted who responded to the questionnaires.

AREA OF STUDY

Reverse Mortgage in India.

LOCATION OF STUDY

Delhi

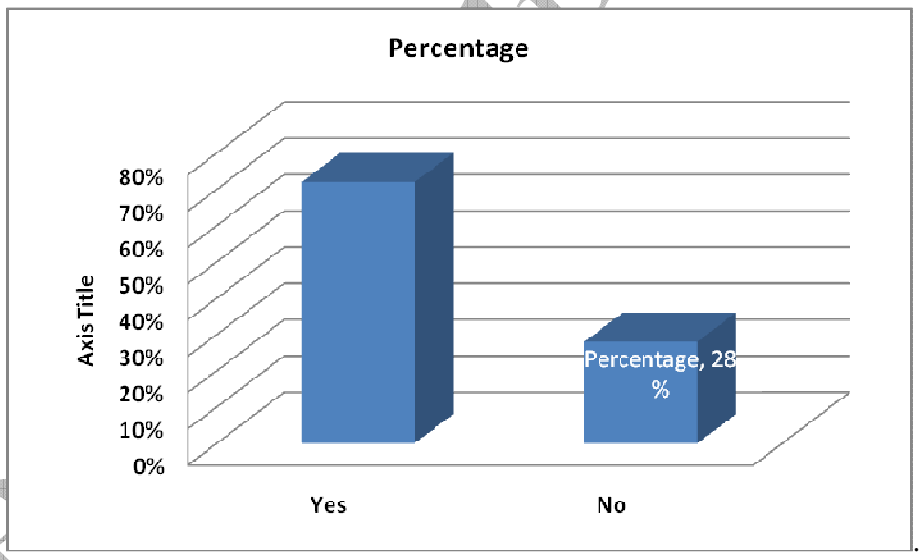
CHAPTER - 5

DATA ANALYSIS & INTERPRETATION

Q1. Is your home your primary residence?

TABLE - 1

Criteria	Frequency	Percentage
Yes	36	72%
No	14	28%



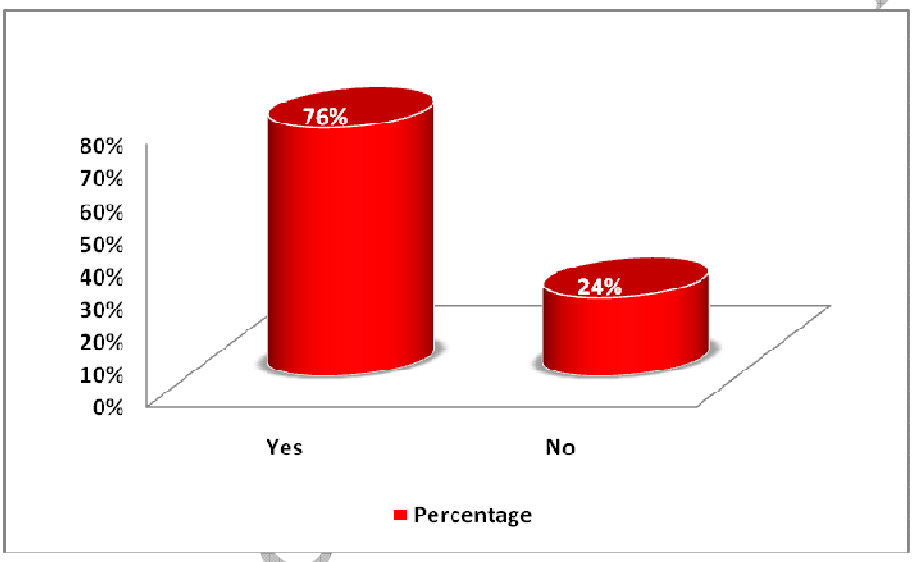
ANALYSIS AND INTERPRETATION:

It is evident from the above table that 72% sample of respondents have think that home is their primary residence, and that 28% sample of respondents don't think like that.

Q2. Are all owner and co-owners age 62 or older?

TABLE - 2

Criteria	Frequency	Percentage
Yes	38	76%
No	12	24%



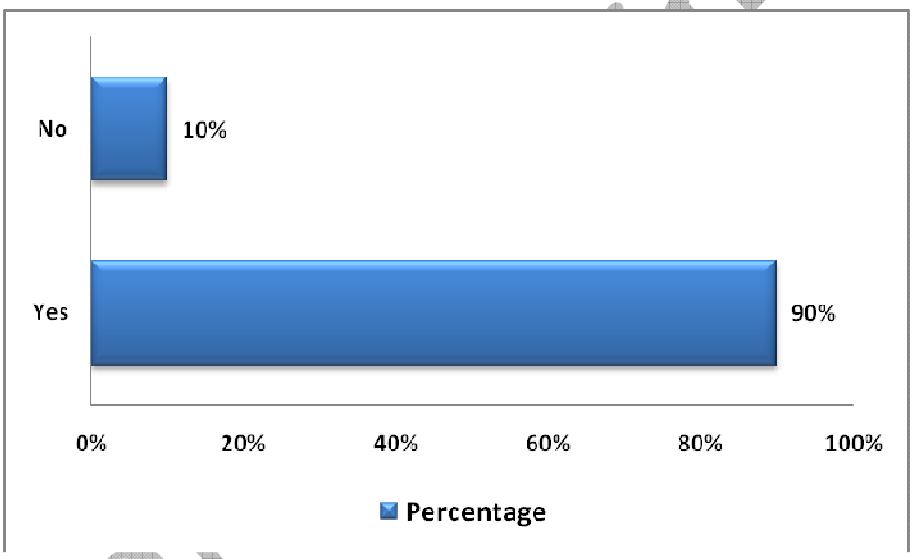
ANALYSIS AND INTERPRETATION:

It is evident from the above table that 76% sample of respondents have all owner and co-owners age 62 or older, and 24% sample of respondents don't have like that.

Q3. Have you considered all financial options before pursuing a Reverse Mortgage Loan?

TABLE - 3

Criteria	Frequency	Percentage
Yes	45	90%
No	5	10%



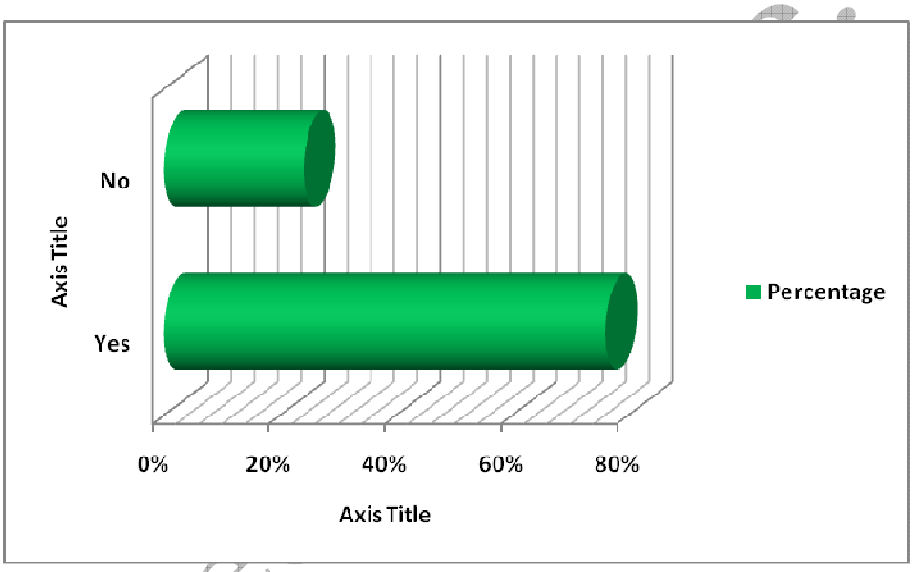
ANALYSIS AND INTERPRETATION:

It is evident from the above table that 90% sample of respondents have considered all financial options before pursuing a Reverse Mortgage Loan, and only 10% sample of respondents don't that.

Q4. Have you consulted with a Loan originator to determine how much you would qualify a reverse mortgage loan program?

TABLE - 4

Criteria	Frequency	Percentage
Yes	38	76%
No	12	24%



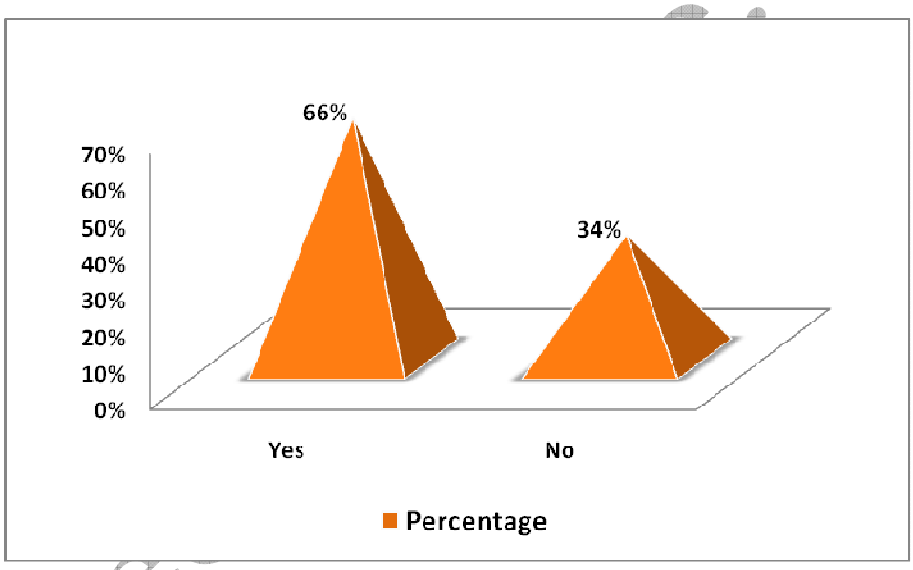
ANALYSIS AND INTERPRETATION:

It is evident from the above table that 76% sample of respondents have you consulted with a Loan originator to determine how much you would qualify a reverse mortgage loan program, and only 24% sample of respondents don't think like that.

Q5. Will u consult with a certified financial planner to assess what impact a reverse mortgage could have on any other government benefit you are currently receiving such as social security?

TABLE - 5

Criteria	Frequency	Percentage
Yes	33	66%
No	17	34%



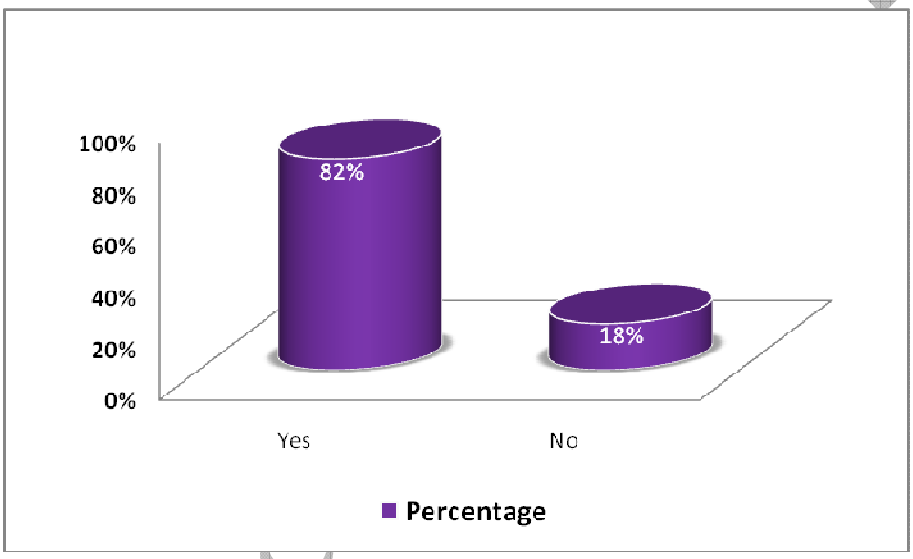
ANALYSIS AND INTERPRETATION:

It is evident from the above graph that 66% sample of respondents have consult with a certified financial planner to assess what impact a reverse mortgage could have on any other government benefit you are currently receiving such as social security, and 34% sample of respondents don't think like that.

Q6. Did you speak with a tax advisor to determine if there are any tax consequences to assuming a reverse mortgage?

TABLE - 6

Criteria	Frequency	Percentage
Yes	41	82%
No	9	18%



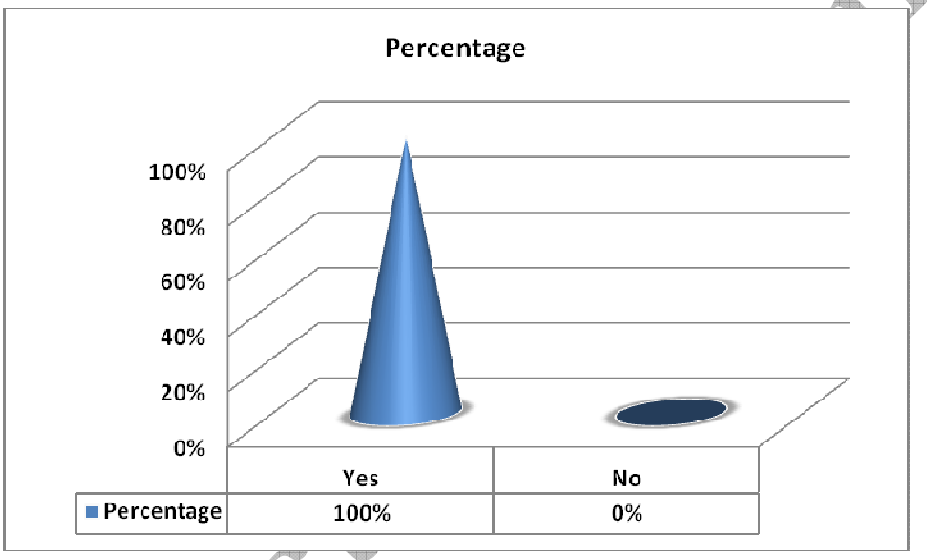
ANALYSIS AND INTERPRETATION:

It is evident from the above table that 82% sample of respondents think that they were speak with a tax advisor to determine if there are any tax consequences to assuming a reverse mortgage, and 18% sample of respondents don't think like that.

Q7. Have you discussed the advantages and disadvantages with your heirs?

TABLE - 7

Criteria	Frequency	Percentage
Yes	50	100%
No	0	0%



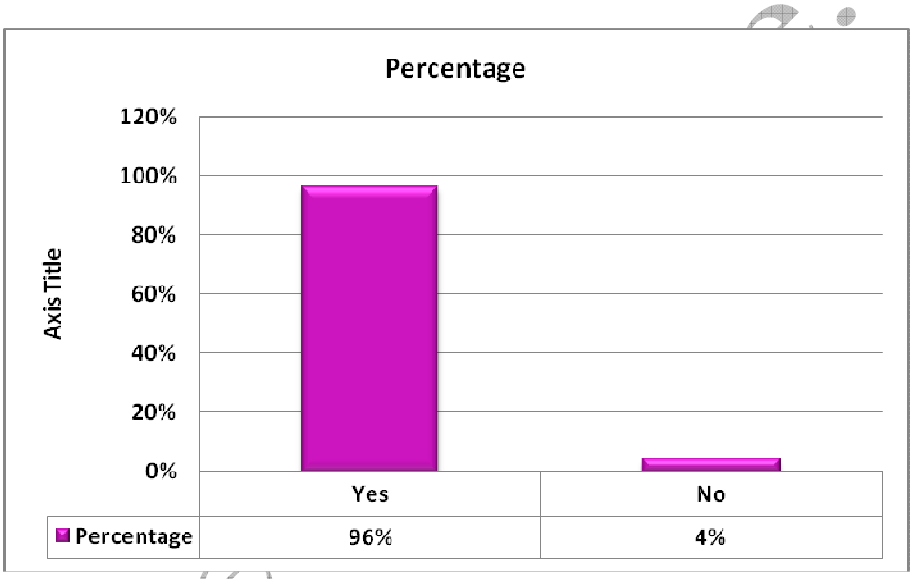
ANALYSIS AND INTERPRETATION:

It is evident from the above table that 100% sample of respondents think that they were discussed the advantages and disadvantages with your heirs

Q8. Have you received counseling from a HUT-Approved Home Equity Conversion Mortgage (HECM) Counselor?

TABLE - 8

Criteria	Frequency	Percentage
Yes	48	96%
No	2	4%



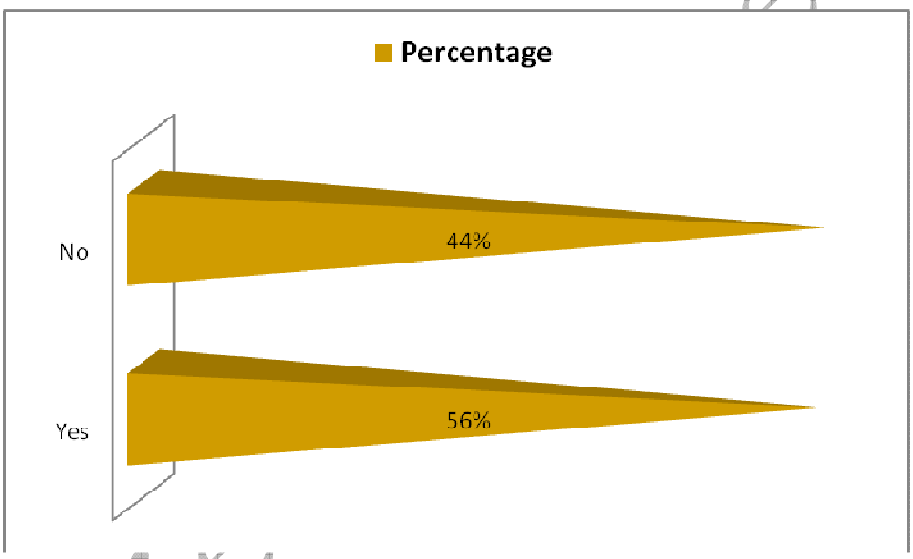
ANALYSIS AND INTERPRETATION:

It is evident from the above table that 96% sample of respondent you received counseling from a HUT-Approved Home Equity Conversion Mortgage (HECM) Counselor, and other 4% sample of respondent don't think like that.

Q9. Did you consider any options other than reverse mortgages good for older peoples?

TABLE - 9

Criteria	Frequency	Percentage
Yes	28	56%
No	22	44%



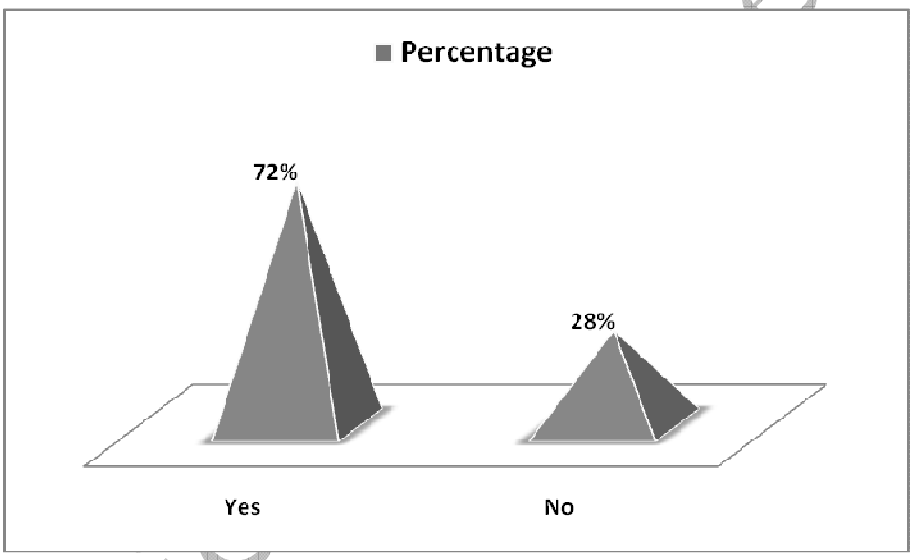
ANALYSIS AND INTERPRETATION:

It is evident from the above table that 56% sample of respondent consider any options other than reverse mortgages good for older peoples, and other 44% sample of respondent don't agree with it.

Q10. Did you seek independent legal advice about the loan conditions/contract?

TABLE - 10

Criteria	Frequency	Percentage
Yes	36	72%
No	14	28%



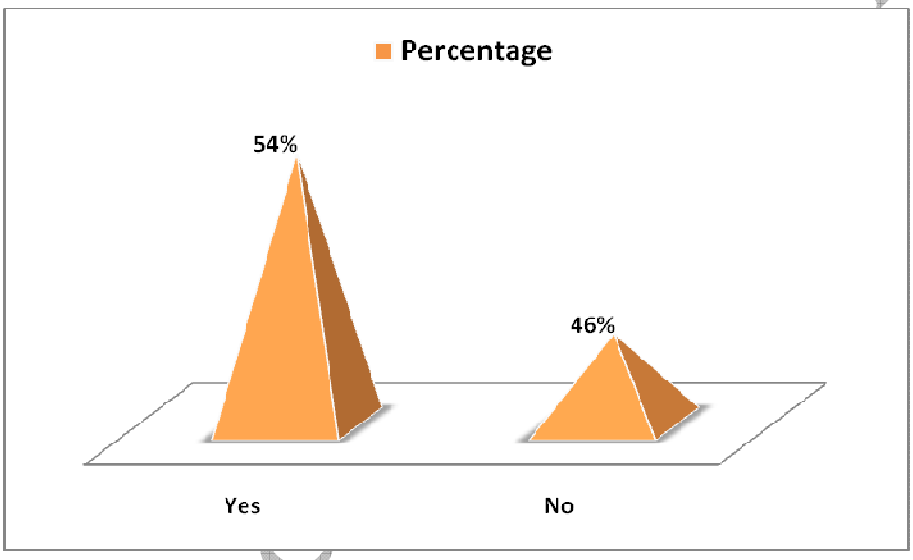
ANALYSIS AND INTERPRETATION:

It is evident from the above table that 72% sample of respondent seeks independent legal advice about the loan conditions/contract, and other 28% sample of respondent doesn't agree with it.

Q11. Do you think that reverse mortgage is very expensive way of Loan option?

TABLE - 11

Criteria	Frequency	Percentage
Yes	27	54%
No	23	46%



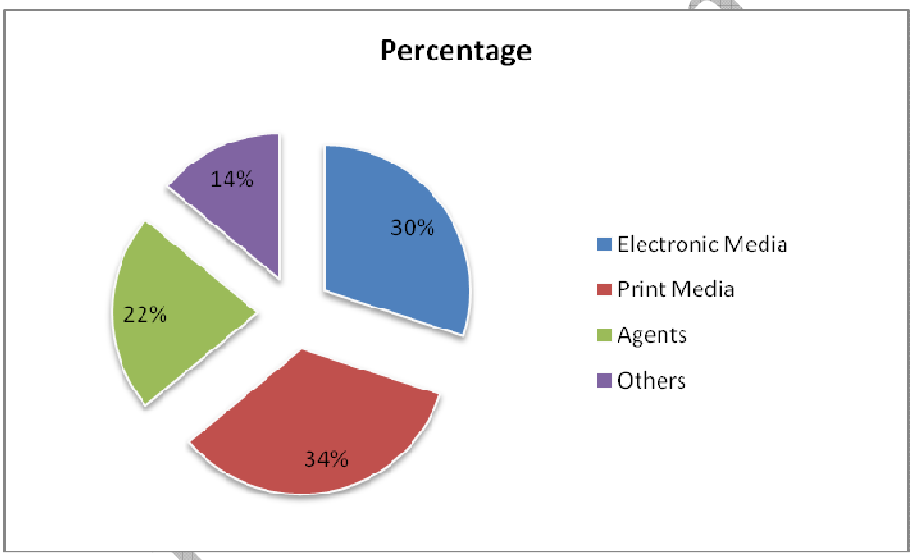
ANALYSIS AND INTERPRETATION:

It is evident from the above table that 54% sample of respondent think that reverse mortgage is very expensive way of Loan option, and other 46% sample of respondent don't think with it.

Q12. From where did you come to know about Reverse Mortgage?

TABLE - 12

Criteria	Frequency	Percentage
Electronic Media	15	30%
Print Media	17	34%
Agents	11	22%
Others	7	14%



ANALYSIS AND INTERPRETATION:

It is evident from the above table that 30% sample of respondent come to know about Reverse Mortgage from Electronic Media, that 34% sample of respondent come to know about Reverse Mortgage from Print Media, 22% sample of respondent from Agents and 14% sample of respondent know about others sources.

CHAPTER – 6

FINDINGS AND RECOMMENDATION

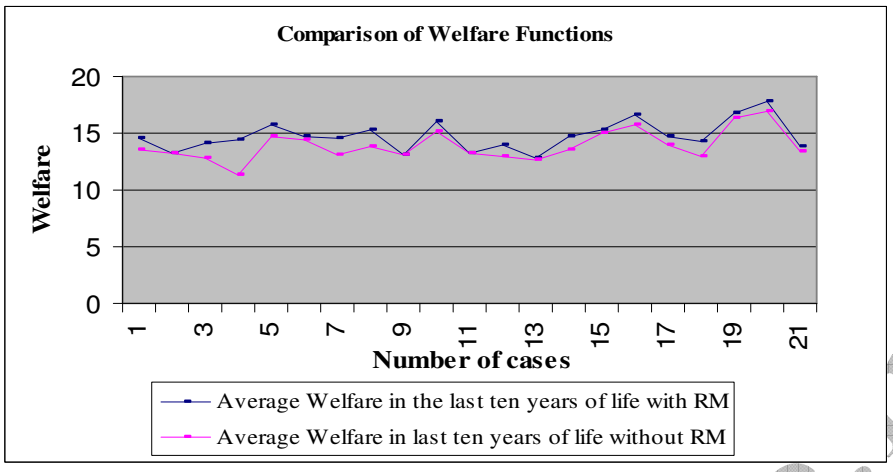
FINDINGS:

1. From the outcome of the study that 72% sample of respondents have think that home is their primary residence, and that 28% sample of respondents don't think like that.
2. From the outcome of the study that 90% sample of respondents have considered all financial options before pursuing a Reverse Mortgage Loan and only 10% sample of respondents don't that.
3. From the outcome of the study 76% sample of respondents have you consulted with a Loan originator to determine how much you would qualify a reverse mortgage loan program, and only 24% sample of respondents don't think like that.
4. From the outcome of the study it is evident that 66% sample of respondents have consult with a certified financial planner to assess what impact a reverse mortgage could have on any other government benefit you are currently receiving such as social security, and As per the outcome of the study 34% sample of respondents don't think like that.
5. As per the outcome of the study 82% sample of respondents think that they were speak with a tax advisor to determine if there are any tax consequences to assuming a reverse mortgage, and 18% sample of respondents don't think like that.
6. Finds that 100% sample of respondents think that they were discussed the advantages and disadvantages with your heirs.

7. As per the outcome of the study 96% sample of respondent you received counseling from a HUT-Approved Home Equity Conversion Mortgage (HECM) Counselor, and other 4% sample of respondent don't think like that.
8. As per the outcome 56% sample of respondent consider any options other than reverse mortgages good for older peoples, and other 44% sample of respondent don't agree with it.
9. From the outcome of the study it is evident that 72% sample of respondent seeks independent legal advice about the loan conditions/contract, and other 28% sample of respondent doesn't agree with it.
10. As per the outcome of the study 54% sample of respondent think that reverse mortgage is very expensive way of Loan option and other 46% sample of respondent don't think with it.
11. 30% sample of respondent come to know about Reverse Mortgage from Electronic Media, that 34% sample of respondent come to know about Reverse Mortgage from Print Media, 22% sample of respondent from Agents and 14% sample of respondent know about others sources.

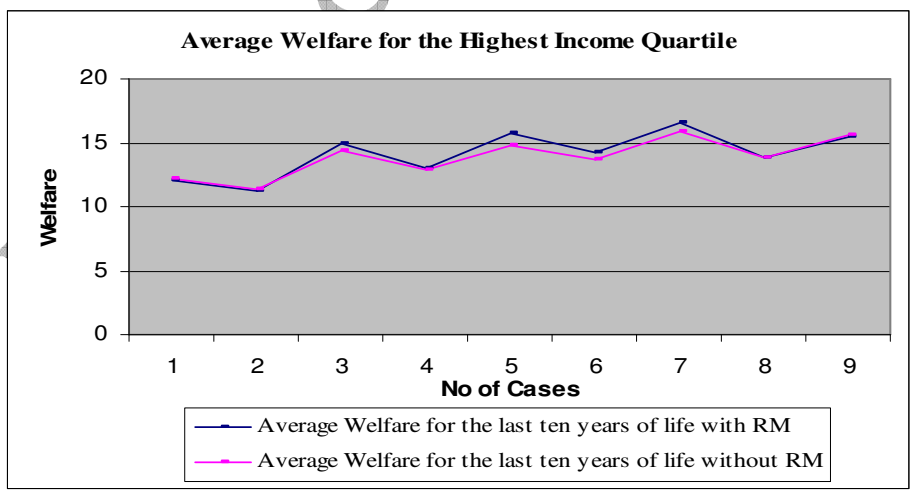
Welfare from Reverse Mortgage

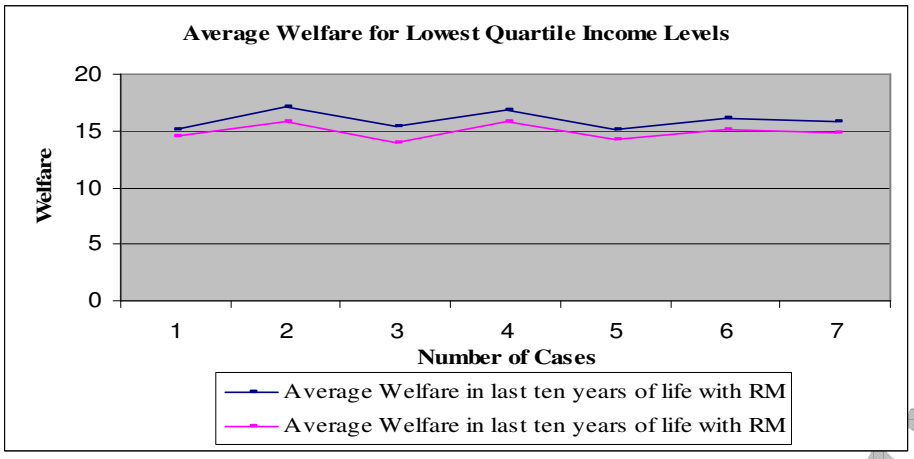
Comparison of welfare provided by reverse mortgage over the last ten years of life with the option of no Reverse mortgage (selling and renting or buying another house) shows that a reverse mortgage is a better solution than the other two scenarios considered.



We perform 20,000 simulations and finally, we calculate the mean and standard error and confidence intervals of over all the iterations

Across income groups, the welfare gain remains similar, but the difference between the welfare with and without RM is different. Lower income quartiles seem to benefit more from the reverse mortgage than higher income quartiles, as has also been shown in various other studies by Venti and Wise etc. (1991)





Welfare Gains by introducing Reverse Mortgage to smooth consumption fluctuation

Percentile	$\gamma = 10$	$\gamma = 5$	$\gamma = 1$
100%	0.068	0.039	0.023
70%	0.062	0.034	0.020
50%	0.059	0.028	0.018
30%	0.043	0.019	0.013
10%	0.020	0.012	0.004

Note: Return on Stocks is 10%, bonds is 5%, home appreciation at 10%, personal discount rate of 10%.

Looking at the data, one can conclude that unlocking housing equity does have a substantial impact on the income levels of individuals. However, there are some limitations to this study, which are discussed below.

The true cost (ex post) of obtaining funds from a reverse mortgage will depend on the timing of the borrower's death—if the borrower lives well past his life expectancy then a reverse mortgage will have low costs but if he dies sooner than expected then a reverse mortgage will be expensive.

CHAPTER – 7

CONCLUSION AND SUGGESTIONS

1. Reverse mortgage, if available, offers an attractive option to the elderly to finance their consumption needs on their own, without the necessity of moving out or worrying about indebtedness or repayment.

2. If designed properly and offered by an empathetic lender, RM might turn out to be the vanguard product to build up brand equity for the lender in this niche segment. Demographic projections indicate that this segment is the fastest growing segment all over the world.

3. RM, if widely available, might in fact encourage more people in the working population to increase the proportion of their savings invested in housing.

4. This segment is likely to attract increasingly favorable public policy attention, given the projected importance of this segment in the electoral politics of all democratic countries.

5. However, the actual size of the RM markets is nowhere near its estimated potential, for a variety of reasons from the demand, supply and regulatory considerations.

6. Any interested RM lender in the Indian market must proceed with caution.

7. The necessary steps before a pilot RM product seem to be the following:

a. Assessment of potential demand in a limited geographical area through

   i. A scientific market survey amongst the specified target segment

   ii. Qualitative research to explore borrower concerns and expectations

b. Precise assessment of legal, taxation and regulatory issues related to RM

c. Exploratory financial modeling to assess lender risk and options for managing it.

Following steps may be taken to make the facility of reverse mortgage workable:

End use of loan should be monitored. An explicit clause preventing use of loan to support wards' personal requirements or businesses to be introduced. Interest paid on reverse mortgage should be explicitly allowed under 'income from house property' to give tax advantage to the borrower. Insurance of credit default such as in the US should be made mandatory. A small part of the loan amount may be parked in unit linked insurance schemes so that the premia paid will keep appreciating and at the same time in the eventuality of death, the sum assured will likely make any good deficit.

Instead of merely capping loan amount as a percentage of value, total outstanding including interest should be capped if the borrowers survive the term of loan. The borrower must undertake to pay the difference from his other sources.

A pool account may be operated by NHB or any agency promoted for this purpose which will meet short recoveries either due to outstanding overtaking the value of property or, due to value of property falling. Counseling to be mandatory could be free as in the US and should be done by advisors carrying NHB certificates.

BIBLIOGRAPHY

1. Patti. Greg (2005), "Reverse Mortgages: Cash for the rest of your life"- Boroson. Warren (2007), "The Reverse Mortgages Advantages", Page 237-243.
2. Kelly. Tom (2006), "Reverse Mortgage Formula".
3. Lowsons. Steve (2005), "Reverse Mortgage Essentials"
4. Bhuyan. Vishal (2007), "Reverse Mortgage and Linked Securities"
5. Muralidharan. D. (2008), "Modern Banking Theory & Practice"
6. Bowen Bishop, T., and H. Shan (2008): "Reverse Mortgage: A Closer Look at HECM Loans," working paper.

Books:

Business Standard - Lucknow and Meerut Edition

Economic Times - Meerut Edition

Outlook Money - April 2008 Edition

Pratiyogita Darpan - June 2008 Edition

India Insurance Report Series

Industrial Economics Volume 40

Websites:

- www.indiahousing.com
- www.bankbazaar.com
- www.livemint.com

- www.allahabadbank.com
- www.statebankofindia.com
- www.pnb.co.in
- www.lic.co.in
- www.wikipedia.org

APPENDIX

QUESTIONNAIRE

Dear respondent,

I am **TAPASYA SHARMA,** conducting a survey on **"A STUDY OF REVERSE MORTGAGE SCHEME IN INDIA"** Kindly help me in my survey by filling this questionnaire.

NAME :

AGE :

MARTIAL STATUS :

EDUCATIONAL QUALIFICATION :

ADDRESS :

CONTACT NUMBER :

Q1. Is your home your primary residence?

☐ Yes ☐ No

Q2. Are all owner and co-owners age 62 or older?

☐ Yes ☐ No

Q3. Have you considered all financial options before pursuing a Reverse?

☐ Yes ☐ No

Q4. Have you consulted with a Loan originator to determine how much you would qualify a reverse mortgage loan program?

☐ Yes ☐ No

Q5. Will u consult with a certified financial planner to assess what impact a reverse mortgage could have on any other government benefit you are currently receiving such as social security?

☐ Yes ☐ No

Q6. Did you speak with a tax advisor to determine if there are any tax consequences to assuming a reverse mortgage?

☐ Yes ☐ No

Q7. Have you discussed the advantages and disadvantages with your heirs?

☐ Yes ☐ No

Q8. Have you received counseling from a HUT-Approved Home Equity Conversion Mortgage (HECM) Counselor?

☐ Yes ☐ No

Q9. Did you consider any options other than reverse mortgages good for older peoples?

☐ Yes ☐ No

Q10. Did you seek independent legal advice about the loan conditions/contract?

☐ Yes ☐ No

Q11. Do you think that reverse mortgage is very expensive way of Loan option?

☐ Yes ☐ No

Q12. From where did you come to know about Reverse Mortgage?

☐ Electronic Media

☐ Print Media

☐ Agents

☐ Others

********Thank You*********