RETIREMENT PLANNING THROUGH REVERSE MORTGAGE OPTION IN INDIA: EMERGING TRENDS

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Abstract

Reverse mortgage loan facility is an innovative financial product that was introduced in the Union Budget 2007-08, which enables senior citizens to get periodical payments much like pensions from a lender against the mortgage of their self occupied house property. Despite tremendous potential, very few eligible homeowners have used this financing option till date. This paper has primarily attempted to explain the concept of reverse mortgage, its regulatory framework and its current status. It discusses the relevance of reverse mortgage to Indian market. The paper identifies the challenges being faced by the product in India. Some measures have been suggested to promote its usage as retirement financing option by house owning senior citizens.

Introduction

Due to higher standards of living, better access to health care and higher life expectancy, most of the developed economies are confronted with the problem of ageing population. In the western world, during 20th century many of the state funded social security systems like old age pension and health care became very generous (Disney and Johnson, 2001). Now, in most developed countries, the aging population is undermining the current and future sustainability of their universal and liberal old age social and income security programmes. Currently most of the Europe and U.S. is reeling under the fiscal pressure generated by their liberal old age social and income security programmes. Attempt at social security reforms in some countries of Europe in the form of increasing the retirement age, eligibility age for full pension benefits and cutting back on some other liberal entitlements is meeting with stiff public resistance. We have seen this recently in some European countries.

The developed economies especially USA and Western Europe woke up in the mid 1980s to these realities and started with the pension and social security reforms (CRIISP, 2011). One important feature of these reforms is that government is increasingly shifting the responsibility of providing for old age social security from the state to private sector and individuals. It is in this context that policy makers in these countries started looking for new financial products that can help the elderly to finance their own long term care. This search for new alternatives focussed their attention to the assets in possession of the elderly. They discovered that bulk of the wealth accumulated by old people during their working years is in the form of house property whose value has increased considerably in recent years. This housing wealth was seen as a potential additional source of financing the post retirement expenditure of the aged population. Thus born the idea of reverse mortgage loan facility. In this loan facility, a senior citizen who owns a house property but needs additional income, can mortgage his property with a lending institution and get the much needed payment in the form of annuity or lump sum based on property valuation.

Though Indian population is comparatively young but it is also ageing. In times to come, government could possibly provide old age income and social security support to the most needy only, considering the size of senior citizen population and pressures on finances, In such a scenario most senior citizens will have to provide for their own old age care. What is compounding the problem is continuous increase in life expectancy. With increase in life expectancy most future retirees will need to build a corpus big enough that could sustain them for a very long period of retired life. The long retired lives, high inflation, steep rise in medical costs, gradual collapse of joint family system and little social security could increase the vulnerability of the aged population. These concerns have created demand for new financial products that provide safe investment avenues and liquidity to illiquid assets of seniors (Rajagopalan, 2006). We are already seeing a growth in life insurance with pension plans. Keeping in mind the specific needs of the retirees, soon we could expect availability of guaranteed pension products, variable annuities and inflation adjusted annuities.

Although they are short of regular cash flows, most middle class senior citizens in urban areas in India own houses, whose values have increased considerably in recent years. Traditionally property is considered to be an illiquid asset. But seniors can now generate liquidity from their house property through a newly launched financial product called 'Reverse Mortgage'. Encouraged by the success of reverse mortgage in many of the developed countries, Indian government too introduced this loan facility in the union budget 2007-08. In this scheme, an individual with age 60 years and above and who owns a house is given loan against the mortgage of his/her self occupied property, mostly in the form of regular income for a fixed tenure or life time.

Brief History of Reverse Mortgage

The problem of senior citizens having inadequate income after retirement is not a recent phenomenon. There is a long history of the use of equity release mortgages as methods of financing retirement and aging (Huan and Mahoney, 2002). As early as 400 years ago, European investors purchased homes from elderly persons and allowed them to stay in the same house rent-free for the rest of their lives. During the crash of 1929, a financial product called the home-equity reversion was created in England. Similar arrangements called "*viagres*" were available in France. The concept was subsequently brought into U.S and became known as reverse mortgages in the 1970s and 1980s. In the U.S. this product has developed and evolved the most, both in variety and volumes. The product did not gain widespread acceptance until 1988 when U.S. Federal Government began sponsorship of its own reverse mortgage program. It authorised the Department of Housing and Urban Development (HUD) to create the Home Equity Conversion Mortgage (HECM) program. HECM program is insured by the U.S. Federal Housing Administration. Currently HECM program is most popular in U.S. and is gaining increasing popularity.

The reverse mortgage loan is currently available in numerous countries, notably the U.S., Great Britain, Japan, Canada, Australia and New Zealand where it is attracting more and more consumers. Reverse Mortgage scheme has been particularly famous and quite successful in United States of America. In India this concept has been taken from America and is being customized to suit our local needs.

Review of literature

The concept of using residential house property to supplement retirement resources through a reverse mortgage has been a topic for researchers since at least the 1960s in the United States (Scholen and Chen, 1980). Much of the research has focused on the role of housing wealth in alleviating poverty among the elderly.

The results of most such research studies have shown that liquidating housing wealth through a reverse mortgage can significantly reduce the number of elders in poverty (Morgan et al., 1996; Rasmussen et al., 1996; Kutty, 1998).

A number of studies also provided evidence of strong demand for reverse mortgages among elderly homeowners in the U.S. (Mayer and Simons, 1994; Merrill et al., 1994; Fratantoni, 1999).

The potential for this financing option was seen to extend to substantial savings in government expenditures to provide for the long term care of the elderly (Stucki, 2005). A report by American association of retired persons (Redfoot et al., 2007) based on the national survey of reverse mortgage shoppers, concluded that reverse mortgages had a mostly positive effect on the lives of ninety-three percent of borrowers. It also reported that consumer knowledge about reverse mortgages is low.

In India, number of studies based on demographic projections and surveys have indicated a great potential for reverse mortgage (Rajagopalan, 2006; Vaidyanathan and Venkataraman, 2006; Celent, 2008; Iyer and Tripathi, 2009). They have made a strong case for popularising reverse mortgage as a significant retirement financing option for the growing senior citizen population in India.

Kasbekar(2008), Raghvan(2009), and Desai (2010) have tried to explain the current poor response to reverse mortgage by identifying the limitations with the current product offering.

Objectives and Research Methodology

The need for the present study was felt, as no major survey work has been done in our country to elicit the opinion of the senior citizens who are eligible to use this loan facility. We have no information about their awareness level, their source of information, their apprehensions about the product, the changes they would like in the product and their thinking about its various social, cultural and economic aspects. This was a major research gap in this field.

The present study is based mainly on primary data collected through questionnaire and personal interviews. The authors of this paper are at present doing a major survey work to gauge the opinion of senior citizens regarding this product in the major metropolitan areas of Delhi, Gurgaon, NOIDA, Jaipur and Tri sector of Chandigarh, Mohali and Panchkula. A test questionnaire was circulated to 25 eligible senior citizens in the National Capital Region of Delhi, to elicit their opinion and feedback on the product. Many of the suggestions in this paper are based on the responses and feedback received during the course of this pilot survey work.

Specifically the objectives of this study are:

- To outline the rationale for increasing the use of Reverse Mortgage as a retirement financing option in the context of changing socio-economic scenario.
- To gauge the awareness level of eligible senior citizens about the reverse mortgage scheme and its various features, their attitude to debt, financial independence and leaving an inheritance.
- Based on eligible borrowers concerns and expectations, suggest suitable changes in the product to make it more useful and widely acceptable.

The present study has also relied heavily on the secondary data like census records, existing research into future population projections, ageing of Indian population, pension reforms and existing literary work on the topic.

Framework of Reverse Mortgage

Reverse Mortgage concept: Reverse mortgage (or lifetime mortgage) is a loan available to senior citizens against the mortgage of self occupied house property. Reverse mortgage, as its name suggests, is exactly opposite of a typical mortgage, such as a home loan. In a typical or forward mortgage, you borrow money in lump sum right at the beginning and then pay it back over a period of time using Equated Monthly Instalments (EMIs). In reverse mortgage, you pledge a property you already own (with no existing

loan outstanding against it). The bank, in turn, gives you money either as lump sum or as regular income flows for a fixed tenure/life time. These can be thought of as reverse EMIs. Although you mortgage the house to bank, you can live in it till you and your spouse are alive. Reverse mortgage works like a pension scheme for retirees.

The Finance Minister, while presenting the Union Budget, 2007-08, had announced that the National Housing Bank (NHB) will introduce a reverse mortgage scheme for senior citizens. NHB is the principal financial institution for housing, established under an Act of the Parliament, as a wholly owned subsidiary of Reserve Bank of India. NHB is also the regulator of housing finance companies. Pursuant to the Government's Budget announcement for 2007-08, NHB empowered with the responsibility of regulating the Reverse Mortgage Loan (RML), announced the draft guidelines. After receiving public comments and incorporating the same, came up with final "Reverse Mortgage Loan (RML): Operational Guidelines" at the end of May 2007 and subsequently revised and notified them in May 2008. Reverse Mortgage Scheme was also notified by the Government of India vide Notification No. 93/2008/F.No. 142/06/2008-TPL in September, 2008. It was to be known as reverse mortgage scheme 2008. The scheme is presently implemented by 23 Banks and 2 HFCs.

Important Guidelines: Some of the important features based on **operational guidelines as announced by NHB and appearing at its official website are as under (NHB, 2008):**

- If you are a home owner, above the age of 60 years, owning a self acquired, self occupied home or flat in India, with a clear title, you are eligible for a reverse mortgage loan. If you or your spouse so wish, you can both apply for the loan together as co-owners. In this case, if one spouse dies, the second spouse continues to receive periodic payments.
- The maximum loan you can receive is up to 60% of the value of your home.
- The loan tenure is capped at 20 years, however most banks will not go above 15 years. This does not mean that once the loan tenure is over, you have to vacate the home. It only means that your periodic payments will cease once the loan tenure is over. But you and your spouse can continue to live in the house till lifetime.
- You can choose to receive the payment in a lump sum or you can choose to receive payment periodically, or as a committed line of credit.
- Your property will be re-valued at least once in 5 years, and based on the revaluation, your lender has the option to change the periodic payments you receive.
- The interest rate on the loan currently varies from bank to bank. The interest rates can be fixed or floating.
- Reverse Mortgage Loans apply only to residential properties that are self occupied by the borrower. This is not applicable to commercial properties or houses on power of attorney.
- The residual life of the property should be at least 20 years, and the property title should be free of any encumbrances.
- The loan amount may be used by the senior citizen borrower for regular day to day expenses, renovation of residential property, medical exigencies, etc. However, use of loan for business and speculative purposes is not permissible.

- The borrower has to pay all the taxes, electricity and water charges regularly. The borrower has to keep the property insured against fire, earthquake and other perils.
- The loan involves certain initial costs which borrower has to bear. These include loan processing charges, documentation charges, property valuation charges etc. These costs are 1% of loan amount or Rs. 20,000 whichever is higher.
- The loan becomes due and payable with accumulated interest, only on the borrower's death or on the borrower leaving the house property permanently. 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 borrower(s) or his/her heirs also have the option of prepaying the loan at any time during the loan tenor, without any prepayment levy.
- It is a non-recourse loan which means the lender can recover his dues only from the property and not the borrower's estate.

Current status of scheme: The initial Reverse mortgage scheme (2008) based on above guidelines was facing some problems from both borrower and lender point of view. The payment tenure was restricted to maximum 20 years but the borrower wished to receive the payment for lifetime. The quantum of periodic payments to borrower was too low and was mainly dependent on interest rate. Also, there was uncertainty over continuance of periodic payments to borrower if property value declined. The banks (lender) also felt that this is a long term product involving a number of risks like longevity, interest rate and property valuation. The banks due to short term nature of their operations were not too keen to assume all these risks.

The National Housing Bank (NHB) took note of this and came up with a revised version of reverse mortgage loan facility in 2009. The new improved version is known as "Reverse Mortgage Loan enabled Annuity" (RMLeA). This new product is based on tie-up between banking and life insurance sector. This new product will provide assured life time annuity to house owning senior citizens against mortgage of their residential property. It also ensures a higher annuity amount to borrower. Two banks (Central Bank of India and Union Bank of India) are providing the new product in tie up with Star Union Dai-ichi Life insurance Company Limited (SUD Life). The terms of (RMLeA) are similar to reverse mortgage scheme (2008).

In the new version, the bank mortgages the property and after assessing the value of property passes on eligible loan amount in lump sum to a life insurance company. The insurer, in turn, works out an EMI based on actuarial calculation and makes regular payments to the borrower for lifetime through the bank. Unlike regular reverse mortgage, where the banks make the payment, here the bank merely acts as an interface between the insurer and the customer. Borrower will have dealing only with bank. The new model also makes the product viable for banks. Earlier, banks had to bear 100% of the risks involved in the product. But with the new product, the risks are divided between the insurance company and the bank. Typically, the bank bears the 'property mortgage related risk', while the insurance company bears the 'longevity risk'. This leads to specialisation and better efficiency in the system which ultimately benefits the borrower.

The new version gives borrower the option of taking 25% of the amount as lump sum and the remaining is compulsorily to be taken in the form of life time annuity. The borrower can choose between two annuity options. These options are:

i. Life time annuity 'without return of purchase price': This gives annuity to the borrower till his death. Under this, the bank sells the house and offsets the loan with accumulated interest after the death of the borrower. In case husband and wife are joint borrowers they can obtain separate life time annuities within the loan amount. After the borrower's death, heirs can repay the entire amount (lump sum and interest) to get back the house.

Life time annuity 'with return of purchase price': Under this, after the death of the borrower and the spouse, the insurer will return the lump sum the bank paid to it at the time the loan started. The bank will use the money to offset the loan and will, subsequently, sell the house to recover the balance, if any. If the heirs want to get back the property, they will have to repay only the interest. In this option, annuity is low but heirs need to pay less to recover the house.

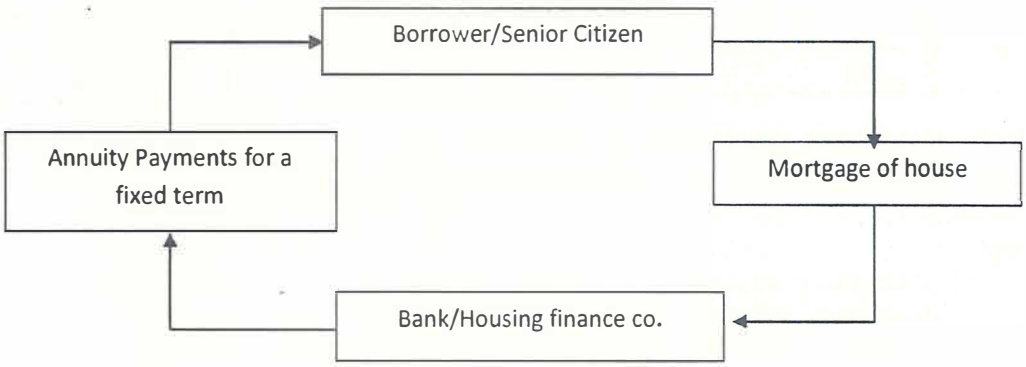


Figure 1: How the Reverse Mortgage Scheme 2008 works

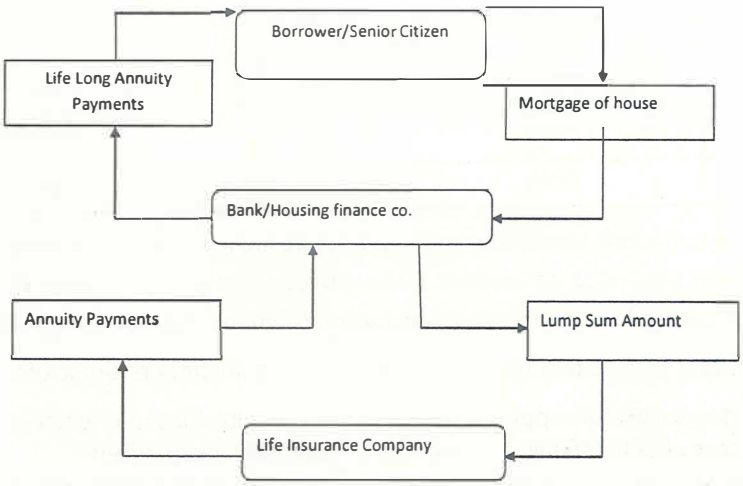


Figure 2: How the Reverse Mortgage Loan Enabled Annuity Scheme works

Table 1: Indicative Monthly Annuity Under Both Versions of Reverse Mortgage

Particulars		RMLeA (2009)			RM SCHEME (2008)
		Life Time Monthly Payments			Monthly payments for A 20 year Term
Age	Property Value(Rs.)	Loan To Value %	Without Return of Purchase Price Option (Rs.)	Return of Purchase Price Option (Rs.) Option (Rs.)	Assuming Interest @ 10.5%p.a. (Rs.)
60	50,00,000	60%	17,295	10,955	3,701
65	50,00,000	60%	19,935	11,335	3,701
70	50,00,000	60%	24,080	12,095	3,701
75	50,00,000	70%	35,830	16,555	4,318
80	50,00,000	75%	51,597	24,941	4,626

Table 2: How much your house can pay you

Another illustration based on Reverse Mortgage Scheme (2008) offering by State Bank of India:

Assumptions:

i. Age of borrower: 60 years
ii. Tenure of loan: 15 years
iii. Interest rate: 10.75%

Property Value	Loan to Value Ratio	Monthly Payments for 15 Years (Rs.)
20 lakhs	90%	4050
40 lakhs	90%	8100
60 lakhs	90%	12150
One Crore	90%	20250

Reverse mortgage seem to provide a low annuity amount but we must also remember that both borrower and his/her spouse have the house for lifetime. If the retiree sells the house he could earn more, but would be forced to look around for accommodation and keep worrying about rising rents.

Reverse mortgage scheme offers a number of advantages for all stakeholders. Some of these are:

i. This loan could become a useful supplement to retirement income for senior citizens with little or no pension and shortage of cash inflows. It makes them financially independent.
ii. As the loan is not to be paid back, there are no eligibility requirements like income qualification to avail this loan.

iii. Borrower gets the lifetime right to stay in his own home.
iv. The money received by borrower under this scheme is tax free. Borrower has the flexibility to receive the loan money in the form of a lump sum, annuity, credit line or combination of them as per his/her requirements.
v. Borrower can never owe more than the value of his home at the time of loan settlement. If the loan amount with accumulated interest grows to more than the value of house, the lender has to bear the loss.
vi. There are no restrictions on the use of funds except that they cannot be used for business or speculative purposes.
vii. At the macro level, implementation of reverse mortgage schemes could reduce the burden on the government and employers who are paying pensions, whether in the public or in the private sector. This would thus be an indirect measure to bring in pension reforms.
viii. Considering the present trend of increase in property prices, it is very likely that even after settlement of reverse mortgage loan there would still be something left for legal heirs. To some extent this will take care of the desire of the senior citizens to leave some inheritance for the children.
ix. It can provide a good business opportunity for the lender. There are crores of rupees lying locked up in property values in urban areas. With senior citizen population being the fastest growing segment of the Indian population, the demand for this product could grow substantially in times to come.
x. The increased awareness of the availability of reverse mortgage loan could motivate people to build or buy their homes early in their lives and thereby, save for their retirement voluntarily. This would increase the economic activity.

Some drawbacks of the scheme are:

i. If the borrower decides to shift to other place, then he/she will be required to repay the loan. This could limit borrower's freedom of choice.
ii. Initial loan processing costs associated with the scheme are quite high. The loan facility will therefore make sense if it is used for a long term.
iii. If real estate prices go down at some stage, annuity payments will either stop or get reduced due to downward revision in property value.

It becomes difficult for senior citizen to bequeath the home to children.

Factors Affecting Reverse Mortgage

A number of factors favour the development of reverse mortgage market. These include ageing population, retirees occupying substantial house properties, rising property prices, insufficient retirement income and changing social values. India at present has most of the factors that favour the development of successful reverse mortgage market:

- **Ageing population:** Significant demographic changes are taking place in India over the last few decades. These changes are in the form of decline in fertility rates, increase in life expectancy, increase in absolute number and proportion of the aged population, increase in old age dependency ratio, rapid urbanisation and increased life expectancy of women leading to greater feminization of population (Asher, 2008; Rajan, 2006). According to the Census 2001, the number of older persons in India was 77 million, or 7.5% of the total population. It is projected that the number of older persons will be 96 million in 2011 (or 8.2%), 133 million by 2021 (or 9.9%) and 301 million (or 17.3%) in 2051 (Rajan, 2006). Female life expectancy at ages 60 years and 70 years is slightly higher than that of males. As women are increasingly living longer than men, greater feminization of population is taking place (Liebig and Rajan, 2003). Reverse mortgage can provide income and social security to surviving widow after the death of husband. Decline in fertility rates imply that in times to come old people will have few children. This could reduce the pressure on seniors to bequest the property to children.

- **Insufficient retirement income**: According to the 1991 census reports, India has an estimated 314 million workers, of which a mere 11 per cent are covered by the formal pension system. In the past, the pension system in the formal sector (for government employees) was defined benefit pension scheme. This meant that the subscriber knew the amount he would get on retirement. But not anymore. Taking a cue from the developed countries which were facing enormous fiscal pressure due to increasing burden of pension liabilities, Indian Government too felt that defined benefit pension scheme may not be fiscally sustainable in the long run. Therefore it shifted all its new recruits who joined service on or after 1st January 2004 to New Pension System (NPS), which is a defined contribution pension scheme (Asher, 2008). In this the regular contribution is governed by rules but what the subscriber gets on retirement depends on the performance of fund manager that is selected by him to manage his fund. From 1st May 2009, NPS is made accessible to large number of those in the informal sector (outside the government) like self-employed, wage earners etc.

- **Housing wealth owned by senior citizens**: Seniors typically possess more financial assets than younger persons, usually accumulated over the years. Housing wealth constitute most of the non-pension wealth of most middle class senior citizens. Elderly people on an average possess greater housing wealth than the population average, but they also have incomes that are much lower than those received by younger groups. NHB commissioned a research that found there were 3.87 million house-owning individuals above 65 years in India in March 2006. A report by global consultancy firm Celent, had estimated the market potential of reverse mortgage market at three million households in 2007, which is expected to grow to six million by 2015 (Celent, 2008).

- **Rising residential house prices:** The value of housing wealth possessed by middle class senior citizens is not only significant but is growing fast. Over the last few decades property prices hve increased considerably in the entire urban landscape. Prices have shot up many fold. Houses worth a few lakh of rupees 10 to 15 years ago are worth crores of rupees today. It has given rise to a large number of 'house-rich but cash-poor' property owners. Since a large portion of middle class seniors wealth is locked in their homes, higher real estate values has substantially increased the value of these assets as a source of funding the post retirement expenditure.

- **Disintegrating Joint Family System**: In the not too distant past, our age old tradition of Joint family system took good care of the old and retirees. It provided the financial and psychological support to the aged people. They felt so secure that they hardly feltthe need of financial planning for a comfortable retired life. But with Indian economy becoming increasingly globalised, joint family system is collapsing fast (Rajan at el., 1999; Bhattacharya, 2005). The migration pull triggered by globalisation is moving the young people away from the parental home to other cities and even other countries. This has increased the vulnerability of the old people. In such a scenario, the use of reverse mortgage could be a useful addition to retirement financing options.

- **Changing attitudes**: Over a period of time people's attitudes are changing about debt, about being financially independent and about importance of leaving an inheritance for children. Earlier people hated debt and living on borrowed funds. But the new generation has changed all that, as can be seen through growing volumes of home loans, vehicle loans, education loans and increased use of credit cards. The result of our pilot survey work show that most seniors wish to be financially independent. The low fertility rates are reducing the average size of family. With reduced family size and children well settled, there is less pressure to leave inheritance for children. This change in attitudes could encourage seniors to use reverse mortgage.

All the above factors point to a great potential for a product like reverse mortgage to provide a solution to the financing needs of house owning retirees in India.

Challenges in marketing Reverse Mortgage in India

Theoretically, Reverse Mortgage has the potential to provide an important additional retirement financing option for the fast rising number of senior citizens in the country. However, in reality, reverse mortgage market has remained weak. Despite pre-launch studies indicating great potential, very few seniors have used this novel financing option. According to National Housing Bank, only around 7,000 loans amounting to around Rs 1,400 crores have been sanctioned till March 31, 2010. A number of factors on both demand and supply side are responsible for this:

Factors on the demand side:

i. **Behavioural factors:** Apathy, indifference and resistance to change are some of the psychological factors that are responsible for the slow progress of reverse mortgage. Whenever any new financial product is launched by the government for the benefit of the society, it takes a long time to take off. We have already seen this in case of dematerialisation of securities, online trading and New Pension System (NPS). People just don't take the initiative and keep resisting new and innovative ways of doing things. A significant number of educated people still do not have a demat or security trading account. Even after seven years of its launch, implementation of NPS is in complete mess. All the central government employees who have joined service after January 1, 2004, have compulsorily been put in NPS. But the money of large number of them has still not been invested for years after 2004. (CRIISP, 2011). The reverse mortgage loan facility has also been a slow starter precisely due to same reasons.

ii. **Low financial literacy**: The level of financial literacy is very low in India among large sections of society (Asher, 2008; CRIISP, 2011). People hardly do any retirement planning. They do not know about various types of annuities. They rarely readjust their asset portfolio in response to changing interest rates and security prices. They do not understand how inflation is eroding their income and wealth. Most investments are done on the basis of free advice from the sellers of mutual fund and insurance products, who are more interested in their commission than the needs of senior citizens. Very few people make use of the paid services of financial planners. Females are hardly involved in financial decision making process. In such a scenario, it becomes really difficult to promote an unconventional product like reverse mortgage. Unlike western countries where reverse mortgage is an accepted idea, people here find reverse mortgage really complex. Children, who are better educated, do not explain the concept due to fear of losing their inheritance.

iii. **Inadequate marketing leading to low awareness :** during the course of our pilot survey, it was observed that seniors simply do not know about the product. Better awareness had not been created about the product. The banks were supposed to play the lead role in promoting and creating wide spread awareness about this product. But this has not happened. Right now, many of the banks have not bothered to include reverse mortgage in their product portfolio brochures. The banks sell what is easy to sell and makes them money and not what is in the best interests of their customers. It is now a well recognized reality of the Indian financial markets that most innovative financial instruments are push products and not really pull products, which means that most such instruments do not enjoy automatic demand and need to be sold proactively (CRIISP, 2011). Most of the promotional work in this field is being done by NHB. This has limited impact because it has no direct and regular interaction with senior citizens like banks.

iv. **Cultural factors**: Reverse Mortgage is often resented by children as many of them see their legacy going away. During our pilot survey we got this feedback from many elders. They feel that the use of this loan facility will lead to increased family tension as the house will ultimately go to the bank. It was explained to them that the bank getting the house is only the last recourse and the son can always repay the loan and get the house back. The loan is structured in such a way that in most cases

it will leave some equity for children. There is a fair amount of cultural issue involved in reverse mortgage. Most senior citizens have strong bequest motive. They do not find reverse mortgage attractive because reverse mortgage reduce the amount of housing wealth they can leave for their children. One interesting observation during pilot survey was that, bequest motive was very strong even in cases where children do not take care of their parents.

v. **Aversion to debt**: Most elderly value owning their homes free and clear, so much so that they are averse to the idea of any borrowing against their homes. They have worked a lifetime to pay off the housing loan and they may not like to go into debt again at this stage of their life. They feel that it is a social stigma to borrow against one's house at this age to live a decent life. They like the scheme and its features but become scary once you give them the idea about the debt that they will accumulate with each passing year.

vi. **Preserving home equity for emergency**: The probability of incurring large medical expenses increases over time for the elderly. The penetration of medical insurance is still very low in our country. Medical insurance cover after a certain age is either not available or the cost is prohibitive. In such a scenario most of the elderly are not medically insured post retirement. They wish to preserve their home equity for any future medical emergency..

vii. **Taxation Issues**: There is a tax issue with the new version of this product which provides a life time annuity to borrower. The annuity under the new version (RMLeA) is taxable whereas regular payments available under the earlier version were tax free. This aspect will adversely affect the demand for new version. The NHB has taken up this issue with tax authorities.

viii. **Undesirable and unattractive loan features:**

- Maximum tenure of loan: The maximum loan tenure as per operational guidelines is 20 years. However most banks have further reduced it to 15 years. With increased life expectancy, most borrowers are expected to outlive the term of their reverse mortgage. The annuity payment will stop, if the borrower survives the loan tenure. The borrower is thus deprived of annuity at a time when he needs it most. This was affecting response to the product. But a new version of the product , known as "Reverse Mortgage Loan enabled Annuity"(RMLeA) has corrected this as it will provide a life time annuity to borrower.

- High upfront cost: Most of the senior citizens greatly value their money. They feel that upfront costs are very high. These include loan processing charges, documentation costs, and inspection and appraisal fees. Paying such high costs make sense if they are to use the product for its full tenure.

- Cap on total loan amount: Indian banking industry has capped the available loan amount at Rs 50 lakh (Rs 5 million), instead of providing for an equitable percentage of the property's value. Some banks are providing up to Rs 1 crore. This maximum loan amount is inclusive of interest for the entire tenure of loan. Considering the increase in property prices, this restriction may not allow elderly homeowner to realize substantial home equity.

- Type of property that can be mortgaged: The guidelines issued by NHB state that only self occupied residential property located in India is eligible for reverse mortgage. This could affect the demand for the product as it leaves out a large number of inherited properties.

- Very low annuity amount: The formula of working out annuity amount in a reverse mortgage transaction is such that it yields very low annuity. The scheme is loaded against the borrower. He gets little over 0.2% per cent monthly return on his eligible loan amount which is very low. Some banks even charge a higher interest rate and provide a low percentage of property value. In their case annuity amount would get further reduced. Many senior citizens consider selling the property and investing the proceeds in a bank as a better option than reverse mortgage.

Factors on the supply side:

i. **New and unconventional product for the bank staff**: Reverse Mortgages are significantly different from traditional "forward" mortgages. Lenders with little experience in the reverse mortgage market often are confronted with unfamiliar documentation requirements. There is resistance to change to new ways of doing the things. In India, the housing finance market is booming and, therefore, financial institutions do not see the need to launch innovative products. Also there are other issues such as pricing which can be extremely complex as it involves a number of uncertainties, such as future value of houses, life expectancy, and interest rate risks.

ii. **Accounting for accrued interest** : One of the reason for banks not taking interest in pushing this new product is related to accounting for accrued interest on loan amount. Although the interest on reverse mortgage loan leads to income for banks, they don't actually get the income on yearly basis. Since they account for it on accrual basis, they have to pay tax on it. This creates a problem of timing of cash flows. There is a cash outflow on tax, but there is no cash inflow until the tenure of the loan.

iii. **Problem of adverse selection and moral hazard**: As reverse mortgage loans are not due until the borrower dies, sells the house, or permanently moves out, it is people who know that they are likely to stay in their homes for a long time are more likely to opt for this loan than others. If more of such people opt for reverse mortgages, this leads to the problem of adverse selection. The risk to the lender arises from "non-recourse" clause in reverse mortgage loan. This prevents either borrower or his estate from owing more than the value of the home when the loan is repaid. Moral hazard problem arises because homeowners may have no incentive to maintain the house (Schiller and Weiss, 2000). This might be especially true when the loan balance nears the sale value. The lender could respond to such perceived problems by either decreasing the loan amount or charging higher interest rate. This could make the loan unattractive.

iv. **Risks faced by lender**: Reverse mortgage is basically a long term product. Its complexity exposes lender to several risks like longevity, interest rate and property price fluctuations (Szymanoski, 1994; Rajagopalan, 2006). Longevity risk arises due to borrower living unduly long causing lender to make more payments than the house value. Interest rate risk arises because payments to borrower are spread over the period of loan but the lender gets his cash flows only at the end of the loan term. The lender faces the risk that interest rates may move in the opposite direction of what the lender expected. Property price risk arises if at the time of loan settlement property value drops to such an extent that it becomes less than the loan amount. There are no reliable long term data on property price fluctuations that could help the lender in appropriately pricing the product. Legal risks arise if the lender is not able to bring the underlying property to sale, due to litigations. Banks, due to short term horizon of their business are not too keen to promote a product that involves too many risks of long term nature.

Conclusions and Suggestions

India has all the necessary condition for the success of reverse mortgage program like ageing population, low coverage of pension, rising cost of living and health care, gradually collapsing joint family system, growing urbanization, retirees owning substantial house properties and rising property prices. Considering the current size and growth of its elderly population, the provision of any liberal and universal old age social security is unlikely due to fiscal constraints. The government could possibly provide income support only to the most needy section of elderly population. These concerns provided impetus for new financial arrangements that were to be based on individual's voluntary effort to help finance old age consumption. Reverse mortgage is one such innovative arrangement that can improve retirement security of house owning senior citizens.

Rising life expectancy in India has made financial planning for the post retirement life very important. In the absence of social security, the retirees need to accumulate sufficient wealth that could sustain them for long periods of retired life. Most of wealth accumulation in urban areas is taking place in the form of ownership of house properties. Senior citizens own most of these properties. Therefore, in our country reverse mortgage has the potential to significantly improve the retirement security of a large and growing urban middle class. Despite the product's impressive theoretical appeal, very few eligible senior home owners have used this unique financing option. Based on the inputs from behavioural economics, literature review and responses from our pilot survey work, this paper has identified a number of behavioural and product specific factors that are responsible for the low take off. To promote the use of reverse mortgage in India, some policy measures are suggested:

- There is a need to create better awareness about the product. The banks, because of their regular interaction with senior citizens can play important role in promoting and creating wide spread awareness about this product. More and more propaganda by all associations of senior citizens, magazines, newspapers and government departments at the centre and state level dealing with matters pertaining to senior citizens can explain the reverse mortgage scheme and its benefits to senior citizens.
- As the reverse mortgage is an unconventional and a complex product, most senior citizens, are apprehensive about its various aspects. These apprehensions relate to the possibility of accumulating high debt, possibility of eviction, inability to bequeath property, legal and taxation issues. Most of their apprehensions are due to lack of clarity about the product features. The role of good counselling assumes special significance in this regard. Mandatory counselling for every customer on the lines of one provided in United States could improve the situation. The NHB should prepare a list of approved reverse mortgage counsellors. It should be made mandatory for anyone seeking reverse mortgage loan to undergo counselling session with one of these approved counsellors.
- At present the amount of funds that a retiree gets through reverse mortgage is too low. The monthly annuity amount is hardly 0.2% of qualifying loan amount. On annualised basis you hardly get a return of 2.5% of qualifying loan amount. To make the product attractive, the lenders should give up their conservative outlook and provide higher annuity amount to eligible home owners. As the property prices have increased substantially in recent years, the cap on the maximum loan amount should be raised so that more annuity amount could be provided to eligible senior home owners.
- Government should be pressurised for tax-exemption of life time annuity under the new version (RMLeA). This should enhance the appeal of the new version. Taxation issue is also important for lenders. They would also find the product viable for them, if regulations permit them to deduct interest payments accumulated on their reverse mortgage loans but not receivable by them until the sale of the house.
- In India we lack reliable secondary data on mortality rates of elderly, current home ownership amongst the elderly, long term trends in appreciation in home value and long term interest rates (Rajagopalan, 2006). Increased information flows in these areas could help the lender to better assess his risk and price the product. The government should take initiative in building a database on mortgaged properties, quality of houses, their residual life, value of transactions etc.
- Greater participation of the life insurance sector in this market could help in risk sharing and making available lifelong annuity stream to a large number of borrowers. The process has already started but it should accelerate in times to come.
- Efforts should also be directed towards developing a strong long-term bond market. This is important because lenders would need to borrow long-term in order to pay out the lump sums and annual income flows associated with reverse mortgage.

- The lender should explore alternative ways to structure reverse mortgage payments to make the product more appealing to borrowers. The lenders could think of the variable annuity to take care of the age related changing needs of the senior citizens. Another option could be inflation indexed annuity in which annuity payments could be indexed to the rate of inflation. Even the lump sum payment could be given in more than one instalment because senior citizens could face financial emergency on more than one occasion requiring lump sum amount.
- People should be made to realize that government due to fiscal constraints and high income inequalities cannot provide for the old age income and social security of all citizens. In the absence of state and family support, middle class senior citizens should look to their house property to generate much needed cash in times of need.
- Sincere efforts should be made by the lender to simplify the initial procedure associated with using this loan facility. Also, the initial costs should be kept as low as possible.
- The elderly too need to understand that reverse mortgage is not a social service. They should not expect any subsidy in the form of low interest rate. It is purely a market-based commercial solution for their retirement needs.

Like many other products and ideas, we have taken this concept from the west. But, we must understand that our culture, traditions, customs are different from the west. Unless innovative adjustments are made in the product to suit local conditions, acceptability is likely to remain low. Considering the importance of the product for the retirees, lenders and the government, all-out efforts should be made to promote its increased use. In times to come, more and more retirees will surely use this product for their old age consumption in the absence of other viable options. Banks should also promote this product to make more money by capturing the larger share of mortgage market. There are billions of rupees invested by seniors in the house property, waiting to be tapped through innovative products like reverse mortgage. The government should also promote it to reduce the economic burden on state of the ageing society.

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