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Studying the Behavioral aspects of senior citizens related to Reverse Mortgage Scheme in India

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Abstract: With the increase in longevity and low mortality, reverse mortgage schemes is becoming need of an hour for senior citizen homeowners in India. Being an effective retirement income option for people above 60 years yet its adoptability is still a concern. This paper examines the various behavioural aspects of senior citizens in adopting this scheme as an effective retirement tool and to what extent this scheme is beneficial to senior citizens. The paper gives an introduction of the study and describes the theory of reverse mortgage along with a background of the study. Further to that, it lists down the objectives of the study and research methodology used in the study.

Key Words: Retirement planning, Reverse mortgage, financial planning tool, Mortgage, Senior citizens

INTRODUCTION

A reverse mortgage is a type of loan which a senior citizen can avail against the self-occupied residential property. In this scheme. Senior citizens can avail loan in lieu of their house either in lump sum or instalments or combination of both for a fixed term or till the borrower is alive. These loans can be extended by schedule banks and housing finance companies registered with National housing bank in India. This scheme was launched in 2007-08 Union budget with an objective to provide financial independence to senior citizens who have limited source of income at retirement age having a residential house. With the increase in longevity and lack of social security schemes, there was a dire need for such schemes which can provide regular cash flow to senior citizens to meet their medical and living expenses.

LITERATURE REVIEW

Reverse mortgages, also known as Home Equity Conversion Mortgages in U.S (HECM), were designed to help “house-rich” and “cash-poor” senior citizens tap their home equity to pay for living expenses (U.S.

Department of Housing and Urban Development, 2012a; Weber & Chang, 2006; Williams & Kao, 1997). A reverse mortgage is a loan available to senior citizens against the mortgage of their self-occupied house property. Although house is mortgaged to bank/housing finance company, the house owner gets to stay in the property along with the spouse for lifetime. Thus the owner can ensure a regular cash flow in times of need and enjoy the benefit of staying in the property. *(Tribunella, 2014)* examined reverse mortgage as important financial tool getting popularity for retired individual with limited savings. Due to longevity, lack of social security schemes by state & Central Government in India, change in attitude of individuals towards spending and other factors has led to the introduction of this scheme in 2007-2008 Union budget. Longer life spans, fewer pensions, and high consumer debts and mortgages suggest that more seniors will need to tap their home equity in retirement. *(Delgadillo, Stokes, Lown, 2015)*.

Senior citizens can look in to selling the house and relocate to rented accommodation in order to get money for their living expenses but this option is not preferable by them. Firstly, they are so attached with their house which they have built over many years using their entire wealth or might have received house from their ancestors. Secondly, this will force them to keep looking around accommodation quite often which they would not prefer. Another option which senior citizen can go for is simple mortgage or forward mortgage but in that loan amount is required to be paid back after definite period. Moreover, retired senior citizens may not have sufficient funds to pay equated monthly instalments. Reverse mortgages, unlike forward mortgages, are not a product you can sell by simply putting a sign in the window promoting a low interest rate (). In past years, the property value has risen at an increasing rate. The senior citizens having their own residential property are quite rich in their home equity. *Pfeiffer, Schaal, Salter (2014)* noted that interest rates, and home appreciation have been associated as important benefits for the existence of reverse mortgages. Moschis and Burkhalter (2007) identified “retirement income adequacy” as a major concern for current and future retirees. Reverse mortgage, a retirement planning tool provides simple solution to get money without leaving their house. Reverse mortgages enable eligible homeowners to access liquidity from their otherwise illiquid house property. *(Mahesh, 2015)*.

Reverse mortgages is thus an extremely powerful tool to help eligible homeowners obtain much needed cash inflows in retirement from their residential house property. In America, An increasing number of elderly people owning their own homes are opting for reverse mortgages, *Danile, Teresa*.

They are primarily designed to strengthen seniors’ personal and financial independence by providing funds without a monthly payment burden during their lifetime while living in their home. In times to come, with little social security, high inflation, steep rise in medical costs and lack of joint family support, most senior citizen retirees would be forced to draw liquidity from their house property. The reverse mortgage is one such good option that makes it possible.

BACKGROUND STUDY

Lack of Financial literacy has been one of the major cause of insufficient cash flows after retirement since years. The concept of reverse mortgage originated in Great Britain during 1930s with the name “Home equity reversion program”. This was a type of home equity release scheme in which a home owner sold all or part of his home in return for regular income or a cash lump sum or both, and continued to live in his home, usually rent free until death (Huan and Mahoney, 2002). After the success of this program in Britain, it was brought into U.S in 1961 but this scheme gained momentum after 1988. The scheme is popularly

known as Home Equity conversion mortgage program by Department of Housing and Urban Development. The product has seen rapid growth since its inception. Lot of changes pertaining to consumer awareness, loan features, improvement in practices has been done in the 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. More than 95% of the reverse mortgage choose this product, Seungryul, (2013). One can get money upfront in single payment in such schemes, *Kiplinger*.

In India, In Union budget 2007-08 Shri P. Chidambaram (Finance Minister) announced that National Housing Bank shall launch Reverse mortgage scheme wherein reverse mortgage loans can be extended by PLIs (Prime lending institutions) basically schedule banks and Housing finance companies which are registered with National Housing bank. This scheme was launched in India considering that the senior citizen are undergoing transformation with respect to the attitudes, demographic changes, changes in living style and other factors.

INDIAN REVERSE MORTGAGE SCHEME

Concept

A mortgage is a form of hypothecation of a property to a bank or a housing finance company as a security for loan. The security that a lending institution insists on is the mortgage of the house for which the loan is being availed of by the borrower. In such loan transactions, transferor is called mortgagor, the transferee a mortgagee and the instrument through which transfer is affected is called a mortgage deed.

Reverse mortgage, as its name suggests, is exactly opposite of a typical mortgage, such as a home loan. In a typical or forward mortgage, money is borrowed in lump sum right at the beginning and then paid back over a period of time using Equated Monthly Instalments (EMIs). In reverse mortgage, an owner occupied residential house property is mortgaged with a bank/housing finance company. The bank, in turn, provides money either as lump sum or as regular income flow for a fixed tenure/life time. These can be thought of as reverse EMIs.

Features of the Reverse mortgage Loan in India

Eligibility

- Senior Citizen of India above 60 years of age having clear title on the self-occupied residential property
- Married couples as joint borrowers; At least one of them being above 60 years of age and the other not below 55 years of age.
- The residential property is the permanent primary residence of the borrower free of any encumbrances.

Other Guidelines

- **Right to Recession-** Three working days are given to cancel the decision of reverse mortgage.
- **Taxation-** All payments are exempted from Income tax. However, periodic annuity payments are subject to tax under Section 17, 56 and 80CCC of the Income Tax Act and taxable in the hands of the annuity recipients.

- **Settlement of loan-** Loan shall not be payable till the any of the borrower is alive or 20 year whichever is earlier. (Except in the case of RMLeA). Loan amount shall be settled through sale proceeds of house. Any surplus shall be passed on to legal heirs. Legal heirs can pay entire loan with interest. If they want that the house shall not be sold.
- **Non-recourse-** borrower will not owe more than the realisable value of the house.
- **Prepayment clause-**Option for prepayment of loan is there without any prepayment charges.
- **Eligible use of funds:** Medical purpose, Construction of house, maintenance and strictly not for speculative & business purpose.
- **Other cost to Borrower:** Legal charges, property inspection & valuation charges, inspection fee, stamp duty are to be borne by borrowers.

Tenure, Amount and Disbursement of Loan

- Tenure of loan is maximum 20 years.
- The loan amount is dependent on the value of house property as assessed by the prime lending institutions, age of the borrower(s) and prevalent interest rate.
- The loan can be disbursed through monthly/quarterly/half-yearly/annual basis or a lump-sum or as a committed line of credit or as a combination of the three.
- Maximum lumpsum payment is restricted to 50% of the eligible amount of loan subject to maximum of 15,00,000. Monthly payments are restricted to 50,000 per month for Reverse mortgage loan

Reverse mortgage loan with life time annuity (RMLeA) is an extension of RML in association with life insurance Company wherein the borrowers will get life time annuity instead of restriction period of 20 years as in earlier product. Max Loan to value ratio is

| <i>Age of Borrower</i> | <i>Maximum Loan to Value Ratio</i> |
|------------------------|------------------------------------|
| Between 60 and 70 | 60% |
| Between 70 and 80 | 70% |
| 80 and above | 75% |

Source: NHB

ADVANTAGES

Advantages of Reverse Mortgage Loan

Reverse mortgage scheme offers number of advantages for all stakeholders including borrower, lender and government. Some of these advantages 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 to meet the expenses during retired life. 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 liquid funds against his home equity, without having to move out or having to make any repayments, till he dies or permanently moves out. Borrower thus gets the lifetime right to stay in his own home without any payment obligations.
- iv) There is no upper age limit for getting this loan. In fact higher the age, the more is the eligible amount of loan.
- v) 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.
- vi) Reverse mortgage loan is a non-recourse loan. This means the borrower can never owe more than the value of the 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. There is no recourse to any other source of fund except the property that acts as collateral.
- vii) There are no restrictions on the use of funds except that they cannot be used for business or speculative purposes.
- viii) 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, and would thus be an indirect measure to bring in pension reforms.
- ix) 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.
- x) It can provide a good business opportunity for the lender. There are crores of rupees 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.
- xi) The increased awareness of the availability of reverse mortgage loan will 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.

Drawbacks of Reverse Mortgage Loan

- i) If the borrower decides to reallocate to other place, then he/she will be required to repay the loan. This could limit borrower's freedom of choice.
- ii) Reverse mortgage loan is expensive. 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, the revaluation of property could entitle borrower to lower annuity value, or his annuity could stop altogether. This could put borrower in a difficult position as he/she needs a higher annuity amount with each passing year.

- iv) If the borrower wishes to pass on his wealth to his heirs, he will find his bequest greatly reduced by reverse mortgage.
- v) Maintenance costs, insurance and taxes remain the responsibility of the owner. Failure to pay them is treated as technical default and may lead to foreclosure of loan.

Since there are no regular payments to be made, interest is added to the loan balance and compounds for the duration of the loan. Because of this, the loan balance can dramatically increase over time, leaving little equity for owner

OBJECTIVES OF THE STUDY

In the context of the above stated need, following objectives have been formulated for the study:

- i) To review the concept on reverse mortgage in order to develop a perspective on the existence of the scheme.
- ii) To study senior citizen's main hesitations regarding the scheme and to check whether their decision of not supporting reverse mortgage is with any kind of behaviour bias.
- iii) To study about the senior citizens retirement planning, desire to leave an inheritance, their possibility of using reverse mortgage financing option

Increase in nuclear families has led to children being away from **elderly parents** and thus making them vulnerable to threats / discomforts which were unheard of in earlier societal set-up. Care during old-age related disorders is another important factor contributing to the evolving thought process of senior citizens in India.

Reverse mortgage thus turns the immovable property into a liquid asset that generates a return while it is being used by the owner. It works like a pension scheme for senior citizens, who live in a house they own.

RESEARCH METHODOLOGY

The findings of the study are primarily based on analysis of data collected from a survey of senior citizen respondents with the help of a structured questionnaire. The target audience for the present study are senior citizens of age sixty years and above, having residential house property in their name. In total 76 senior citizen respondents participated in the study.

The study has also relied on the secondary data like census records, information relating to the product on the websites of the banks and finance companies, existing research into reverse mortgage in India and abroad, data on old age population projections, ageing of Indian population, life expectancy, mortality rates, pattern of house ownership etc.

The data collected from the respondents and secondary sources were analysed using appropriate statistical tools like tables and cross-tabulation using SPSS.

DEMOGRAPHIC PROFILE OF SENIOR CITIZENS

Table 1
Age

| | | <i>Frequency</i> | <i>Percent</i> | <i>Valid Percent</i> | <i>Cumulative Percent</i> |
|-------|-------|------------------|----------------|----------------------|---------------------------|
| Valid | yes | 74 | 97.4 | 97.4 | 97.4 |
| | No | 2 | 2.6 | 2.6 | 100.0 |
| | Total | 76 | 100.0 | 100.0 | |

Table 1.1
Heard About Reverse Mortgage

| | | <i>Frequency</i> | <i>Percent</i> | <i>Valid Percent</i> | <i>Cumulative Percent</i> |
|-------|-------|------------------|----------------|----------------------|---------------------------|
| Valid | Yes | 50 | 65.8 | 65.8 | 65.8 |
| | No | 26 | 34.2 | 34.2 | 100.0 |
| | Total | 76 | 100.0 | 100.0 | |

Table 1.2
Own house

| | | <i>Frequency</i> | <i>Percent</i> | <i>Valid Percent</i> | <i>Cumulative Percent</i> |
|-------|-------|------------------|----------------|----------------------|---------------------------|
| Valid | Yes | 72 | 94.7 | 94.7 | 94.7 |
| | No | 4 | 5.3 | 5.3 | 100.0 |
| | Total | 76 | 100.0 | 100.0 | |

RESEARCH HYPOTHESIS

The first aim of this research is to investigate the degree of susceptibility to behavioural biases by senior citizens. The degree depends upon the understanding of the scheme by the senior citizens. Therefore, following hypotheses were tested.

H01: There is no significant difference between the susceptibility to behavioural bias like conservatism in taking the decision of reverse mortgage and the desire of leaving the estate for their children.

H02: There is no significant difference between susceptibility of behavioural bias like mental accounting in considering reverse mortgage as retirement tool.

Opportunities for Reverse Mortgage in India- Secondary Data

India at present has most of the factors that favour the development of successful reverse mortgage market. These factors are:

I. Demographic Changes

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 and rapid urbanisation. It is projected that the number of older persons will grow from around 100 million in 2011 (or 8.2% of total population of around 1.2 billion), to around 301 million (or 17.3%) in 2051.

India does not have a comprehensive old age income security system. Most aged people rely on the support from their children for their consumption needs in old age. With the given projections for the old age population, we could be moving towards India, which will have a large number of poor elderly. Reverse mortgage can provide one additional alternative to old age house owning retirees to lead somewhat comfortable and independent retired life.

Table 2
Selected Indian Population Indicators (1981-2010)

| | 1981 | 1991 | Current |
|--|------|------|-------------|
| Total Fertility Rate (per woman) | 4.5 | 3.6 | 2.5 (2010) |
| Crude Birth Rate (per 1000 population) | 33.9 | 29.5 | 21.8 (2011) |
| Crude Death Rate (per 1000 population) | 12.5 | 9.8 | 7.1(2011) |

Source: Economic survey 2012-13, page 288.

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. They could use their residential house property through reverse mortgage to generate additional monthly income and thereby lead a comfortable retired life.

Table 2.1
Projection of Number and Proportion of Elderly Population (aged 60 +) In the Total Indian Population (2021-2051)

| Number and Proportion | 2021 | 2031 | 2041 | 2051 |
|-------------------------|------|------|------|------|
| Number (in millions) | 133 | 179 | 236 | 301 |
| (% of total population) | 9.9 | 11.9 | 14.5 | 17.3 |

Source: Adopted from Rajan, 2007.

Table 2.1 shows that 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. India is young but it is graying, *Brar (2011.)*

Table 2.2
Male and Female Life Expectancy at ages 60 and 70, India (1970 – 2005)

| Period | Male | | | Female | | |
|-----------|----------|-----------|-----------|----------|-----------|-----------|
| | At Birth | At age 60 | At age 70 | At Birth | At age 60 | At age 70 |
| 1970-75 | 50.5 | 13.4 | 8.6 | 49.0 | 14.3 | 9.2 |
| 1976-80 | 52.5 | 14.1 | 9.6 | 52.1 | 15.9 | 10.2 |
| 1981-85 | 55.4 | 14.6 | 9.7 | 55.7 | 16.4 | 11.0 |
| 1986-90 | 57.7 | 14.7 | 9.4 | 58.1 | 16.1 | 10.1 |
| 1991-95 | 59.7 | 15.3 | 10.0 | 60.9 | 17.1 | 11.0 |
| 1996-2000 | 61.0 | 15.8 | 10.4 | 62.7 | 17.8 | 11.7 |
| 2001-2005 | 62.3 | 16.4 | 10.9 | 63.9 | 18.7 | 12.3 |

Source: Rajan, 2007.

Table 2.2 shows important ageing indices. It shows projections about old age dependency ratio and index of ageing. Old age dependency ratio is defined as the ratio of population above 60 years of age to the population in working ages (15-59). Index of ageing is defined as the ratio of population above 60 years of age to the population in age group 0-14 years. Both indices are projected to go up significantly in decades to come. Reverse mortgage can provide one good alternative to old age house owning retirees to be financially independent in old age.

Table 2.3
Indices of Ageing of Indian Population, 2011-2051(Projections)

| <i>Indices</i> | <i>2011</i> | <i>2021</i> | <i>2031</i> | <i>2041</i> | <i>2051</i> |
|--------------------------|-------------|-------------|-------------|-------------|-------------|
| Old Age Dependency Ratio | 13.4 | 16.0 | 19.0 | 23.2 | 28.2 |
| Index of Ageing | 26.5 | 35.2 | 46.8 | 62.0 | 81.7 |

Source: Adopted from Rajan, 2006.

Table 2.4
Urbanization in India (1951-2001)

| | <i>1951</i> | <i>1961</i> | <i>1971</i> | <i>1981</i> | <i>1991</i> | <i>2001</i> |
|-------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Urban Population(in millions) | 62.4 | 78.9 | 109.1 | 159.5 | 217.6 | 284.5 |
| Urban Population (in %) | 17.3 | 18.0 | 19.9 | 23.3 | 25.7 | 27.8 |

Source: Adopted from Bhattacharya, 2005.

Table 2.5
Projected Senior citizen population
Projected senior citizen population

| <i>All India</i> | <i>2006</i> | <i>2011</i> | <i>2016</i> | <i>2021</i> | <i>2026</i> |
|------------------|-------------|-------------|-------------|-------------|-------------|
| Persons | 7.5 | 8.3 | 9.3 | 10.7 | 12.4 |
| Male | 7.1 | 7.8 | 8.8 | 10.2 | 11.7 |
| Female | 8 | 8.8 | 9.8 | 11.3 | 13.1 |

Annual Report, Department of Social Justice 2014-215

Projections as per the report submitted by Department of social justice shows that senior citizen population is going to rise from 10.7% to 12.4% from 2012 to 2026. Another data shows that reverse mortgage can provide one good alternative to old age house owning retirees to be financially independent in old age.

INSUFFICIENT RETIREMENT INCOME

Nearly 89% of the total workforce is employed in the unorganised sector. They retire from their work without any financial security like pension and other retirement benefit. Although New Pension System was made applicable to them from 2009, it did not make much headway. The formal pension system which includes traditional civil servants pension scheme and Employees Provident Fund Organisation schemes together cover just about 11% of workforce (Shah, 2005).

Table 2.6
Member Balance in EPF as on March 31st 2003

| <i>Amount (in Rupees)</i> | <i>Number of Members (in million)</i> | <i>Percentage of members</i> | <i>Average Balance (in Rupees)</i> |
|-------------------------------|---|----------------------------------|--|
| Up to 20,000 | 29.34 | 84.6 | 3,130 |
| 20,000 – 49,999 | 2.88 | 8.3 | 40,470 |
| 50,000 – 99,000 | 1.28 | 3.68 | 70,660 |
| 1,00,000 - 1,99,000 | 0.79 | 2.28 | 1,38,410 |
| 2,00,000 - 2,99,000 | 0.23 | 0.67 | 2,40,620 |
| 3,00,000 - 4,99,000 | 0.11 | 0.33 | 3,69,660, |
| 5,00,000 - 9,99,000 | 0.036 | 0.10 | 6,40,230 |

Source: Employee Provident Fund Organization.

An analysis of the savings made by members of Employee Provident Fund Organization revealed that out of 39.5 million members as on March 31st 2003, almost 85% members have balances below Rs. 20,000, with an average balance of just Rs.3,130. An additional 8% members have balances below Rs.50,000. This is due to premature withdrawal and usage of funds during working life to fund family functions, illness, housing etc. The people working in the quasi-government sector and private organised sector are covered through mandatory Employee Provident Fund Act(1952) and Employees Pension Scheme(1995). As is evident from Table 1.9, even such mandatory schemes do not ensure accumulation of sufficient amount to meet expenses during long retired life.

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 this will not be so 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, what the subscriber gets on retirement depends on the performance of fund manager that is selected by him to manage his fund.

HOUSING WEALTH OWNED BY SENIOR CITIZENS

Seniors typically possess more 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. A global consultancy firm Celent, had estimated the market potential of reverse mortgage market in India at three million households in 2007 (Celent, 2008).

Table 2.7
Number of Urban Residential Houses in India(2001 and 2011)

| <i>Year 2001</i> | <i>Year 2011</i> | <i>Variation in %</i> |
|------------------|------------------|-----------------------|
| 50 million | 76 million | 5 |

Source: Census 2011.

As can be observed in the Table 2.7, the urban residential housing stock has increased by more than 50 percent during 2001-2011. This could provide a good opportunity for reverse mortgage to both borrowers and lenders.

IV. 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 have increased considerably in the entire urban landscape. Prices have shot up many folds. 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. The increases in house prices account for about one third of the overall growth in the reverse mortgage market from 2003 to 2007, *Hui Shan,(2011)*.

Table 2.8
Residential Property Price Index for some Big Cities (2007 – 2013)

| City | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | March 2013 |
|------------|------|------|------|------|------|------|------------|
| Ahmadabad | 100 | 103 | 128 | 128 | 165 | 177 | 192 |
| Chennai | 100 | 98 | 132 | 190 | 260 | 310 | 310 |
| Pune | 100 | 98 | 110 | 136 | 163 | 197 | 221 |
| Kolkata | 100 | 127 | 174 | 176 | 197 | 198 | 197 |
| Mumbai | 100 | 115 | 125 | 155 | 186 | 201 | 222 |
| Delhi | 100 | 127 | 117 | 110 | 153 | 178 | 202 |
| Bangalore | 100 | 75 | 59 | 69 | 93 | 102 | 109 |
| Ludhiana | 100 | | | | | 170 | 167 |
| Chandigarh | 100 | | | | | | 194 |

Source: Based on NHB “Residex Index”. (<http://www.nhb.org.in/>)

As can be observed in the table 2.8, the residential property prices have almost doubled in the last five years in most of the important metropolitan cities of India. 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

Table 2.9
Data on Household Size (2001&2011)

| Household Size | Total | | Rural | | Urban | |
|------------------|-------|------|-------|------|-------|------|
| | 2001 | 2011 | 2001 | 2011 | 2001 | 2011 |
| 4 or less (in %) | 41.9 | 49.7 | 39.8 | 47.1 | 47.0 | 55.4 |
| 5 – 8 (in %) | 46.8 | 43.7 | 48.1 | 45.8 | 43.6 | 39.1 |
| 9 plus (in %) | 11.3 | 6.6 | 12.1 | 7.1 | 9.4 | 5.5 |

Source: Census 2001 and 2011

they hardly felt the need of financial planning for a comfortable retired life. But with Indian economy becoming increasingly globalised, joint family system is collapsing fast (Rajan et al., 1999; Bhattacharya, 2005).

Table 2.10
Decadal growth in Population and Growth in Number of Households (1991-2001)

| | |
|--|-----|
| Decadal Population Growth | 21% |
| Decadal Growth in number of Households | 27% |

Source: Compiled from Bardhan and Barua, 2003

Table 2.9 and 2.10 clearly bring home the point that families are becoming smaller in size. 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 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.

At present Indian population is comparatively young, but due to its huge population base senior citizen component is growing at a fast pace. Retirement planning has never been as important as it is now considering that most Indians live longer. With increase in life expectancy most future retirees will need to build a corpus big enough that could sustain them for a long period of retired life. Lack of social security measures, high inflation, gradual collapse of joint family system, steep rise in the health care costs and little savings has made retirement phase very challenging for most senior citizens. This has created a demand for products that could generate additional monthly income and thereby provide retirement security for the fast ageing population.

In our country too aged people possess considerable housing wealth whose value has grown considerably in recent decades. This wealth has been lying idle. Since long, the government has been giving significant concessions for house building in the form of tax rebate on interest repayment and also principal repayments. This along with a long period of low interest rates on home loans has led to significant investment in the residential house property. Given the risky returns from investments in financial assets in India, an increasing proportion of the annual savings of the household sector is being invested in the housing sector. Using this large housing wealth through reverse mortgage could lead to many welfare enhancing factors, such as old age security, increase in mortgage business for the banks, increased construction

activity and a general boost for the economy (**Bardhan and Barua, 2003**). It could also reduce the fiscal pressures on the government for old age social security.

The target audience for this product is middle class house owning senior citizens. With increase in longevity one of the chief concerns of the elderly is that they might outlive their savings. While the rich face no problem of shortage of cash flows in old age, the poor does not have a house property to be eligible for reverse mortgage. Due to fiscal constraints and looking at the experience of the developed world, India cannot possibly afford a liberal and universal old age social security system. Looking at the size of its population, the government could possibly provide old age income support, only to the most vulnerable section of population. We have an old age pension scheme but that is meant only for the people at subsistence level. There is nothing for the middle class and reverse mortgage was expected to fill this gap. Since bulk of the savings of middle class retiree is typically locked in home equity, reverse mortgage could provide them an important additional source of financing old age needs.

With a gradual awareness of the existence as well as the success of reverse mortgage internationally, Indian government too introduced the reverse mortgage loan facility in the Union Budget 2007-08. The National Housing Bank, a subsidiary of RBI, came out with operational guidelines on reverse mortgage in 2007. In India 24 banks and two housing finance companies have already introduced this scheme.

ANALYSIS & INTERPRETATION OF DATA

Hypothesis 1

There is no significant difference between the susceptibility to behavioural bias like conservatism in taking the decision of reverse mortgage and the desire of leaving the estate for their children.

About Conservatism bias

Sticking to the old and time tested principles is observed very commonly. This Conservatism bias is a mental process in which people cling to their prior views or forecasts at the expense of acknowledging new information. For example, suppose that an investor receives some bad news regarding a company's earnings and that this news negatively contradicts another earnings estimate issued the previous month. Conservatism bias may cause the investor to underreact to the new information, maintaining impressions derived from the previous estimate rather than acting on the updated information.

The responses of senior citizens having their own house with respect to leaving estate for their children are tabulated below

Table 3
Contingency table of senior citizens having their own house and leaving estate for their children

| | <i>Cases</i> | | | | | |
|---|--------------|----------------|----------------|----------------|--------------|----------------|
| | <i>Valid</i> | | <i>Missing</i> | | <i>Total</i> | |
| | <i>N</i> | <i>Percent</i> | <i>N</i> | <i>Percent</i> | <i>N</i> | <i>Percent</i> |
| Own house * Parents must leave house for their children | 76 | 100.0% | 0 | 0.0% | 76 | 100.0% |
| Own house * Parents must leave house for their children | | | | | | |

Table 3.1
Crosstabulation

| <i>Count</i> | | <i>Parents must leave their house for their children</i> | | | <i>Total</i> |
|--------------|-----|--|---------------------------------|---------------------------|--------------|
| | | <i>Yes, Howsoever badly children treat them</i> | <i>No, Should change belief</i> | <i>Any other response</i> | |
| Own house | Yes | 44 | 22 | 6 | 72 |
| | No | 2 | 0 | 2 | 4 |
| Total | 46 | 22 | 8 | 76 | |

Table 3.2
Chi-Square Tests

| | <i>Value</i> | <i>df</i> | <i>Asymp. Sig. (2-sided)</i> |
|------------------------------|--------------------|-----------|------------------------------|
| Pearson Chi-Square | 7.550 ^a | 2 | .023 |
| Likelihood Ratio | 5.890 | 2 | .053 |
| Linear-by-Linear Association | 2.262 | 1 | .133 |
| N of Valid Cases | 76 | | |

a. 3 cells (50.0%) have expected count less than 5. The minimum expected count is .42.

The p-values from the pearson chi square test is .023 seen in table suggested that null hypothesis can be rejected at 95% confidence level. Thus confirmed thatsenior citizens are susceptible to conservatism bias. In India, most of the people are traditional and are habituated to some culture and sentiment. People, having attachments with one’s house, are more and they do not show interest for selling their shelter to the bank in case of default. It is a painful experience to mortgage the house that they built with their own sweat and blood.This is the culture inherited from their forefathers to pass on the house to their legal heirs. Acceptability to mortgage the house to bank and later they sell off their house is poor.

Hypothesis 2

There is no significant difference between susceptibility of behavioural bias like mental accounting in considering reverse mortgage as retirement tool

Mental Accounting was coined by Richard Thaler and defined by Thaler (1999) as the “set of cognitive operations used by individuals and households to organize, evaluate, and keep track of financial activities.” First coined by University of Chicago professor Richard Thaler, mental accounting describes people’s tendency to code, categorize, and evaluate economic outcomes by grouping their assets into any number of non fungible (non interchangeable) mental accounts. People may use the windfall money for some speculative trading but with salary income, they will not indulge in to any speculative trading. House as an effective retirement tool can be considered by senior citizens

The responses of senior citizens with respect to reverse mortgage scheme as retirement tool have been captured in the following contingency table

Table 4 Contingency table of Reverse mortgage scheme as retirement tool

Table 4
Reverse Mortgage as retirement tool

| | | <i>Frequency</i> | <i>Percent</i> | <i>Valid Percent</i> | <i>Cumulative Percent</i> |
|-------|-------|------------------|----------------|----------------------|---------------------------|
| Valid | yes | 28 | 36.8 | 36.8 | 36.8 |
| | no | 48 | 63.2 | 63.2 | 100.0 |
| | Total | 76 | 100.0 | 100.0 | |

Table 4.1
Case Processing Summary

| | <i>Cases</i> | | | | | |
|---|--------------|----------------|----------------|----------------|--------------|----------------|
| | <i>Valid</i> | | <i>Missing</i> | | <i>Total</i> | |
| | <i>N</i> | <i>Percent</i> | <i>N</i> | <i>Percent</i> | <i>N</i> | <i>Percent</i> |
| Reverse Mortgage as retirement tool * Opting for reverse mortgage in case of financial difficulties | 76 | 100.0% | 0 | 0.0% | 76 | 100.0% |

Reverse Mortgage as retirement tool * Opting for reverse mortgage in case of financial difficulties

Table 4.2
Crosstabulation

Count

| | | <i>Opting for reverse mortgage in case of financial difficulties</i> | | | <i>Total</i> |
|-------|----|--|------------------------------|----------------------------|--------------|
| | | <i>sell & live in rented house</i> | <i>Take Reverse mortgage</i> | <i>No reverse mortgage</i> | |
| | | Reverse Mortgage as retirement tool | yes | 0 | |
| | no | 13 | 0 | 33 | 46 |
| Total | | 13 | 30 | 33 | 76 |

Table 4.3
Chi-Square Tests

| | <i>Value</i> | <i>Df</i> | <i>Asymp. Sig. (2-sided)</i> |
|------------------------------|---------------------|-----------|------------------------------|
| Pearson Chi-Square | 76.000 ^a | 2 | .000 |
| Likelihood Ratio | 101.965 | 2 | .000 |
| Linear-by-Linear Association | 6.320 | 1 | .012 |
| N of Valid Cases | 76 | | |

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 5.13.

The p-values from the Pearson chi square test and likelihood ratio is .000 seen in table suggested that null hypothesis can be rejected at 99% confidence level. Thus confirmed that senior citizens are susceptible to mental accounting bias. By not considering house as an effective retirement tool and giving more weightage to other options truly reflects the mental accounting bias.

SUMMARY OF FINDINGS

The reducing fertility and increased longevity in India is leading to emergence of a situation similar to that prevailing in the western countries with a large number of house-rich and cash-poor senior citizens. This is particularly true of the aged people living in metropolitan cities. In such a scenario, reverse mortgage is expected to become a significant option to finance post retirement expenses for burgeoning urban middle class.

About 61 per cent of senior citizens said that they have the intention of passing their property to their successors and about 34 percent have not heard about this scheme. In India, most of the people are traditional and are habituated to some culture and sentiment. People, having attachments with one's house, are more and they do not show interest for selling their shelter to the bank in case of default. It is a painful experience to mortgage the house that they built with their own sweat and blood. The tradition of passing down one's property over generations is still in practice in India. The son inherits the property of his father but reluctant to inherit the loan. Conservatism bias is reflected in another instance that people in India are accustomed to some culture and traditions. Having attachment with one's house is a very common phenomenon in India. They do not show interest for selling their shelter to the bank in case of default. Another bias which is reflected in the study is mental accounting bias. In this bias, people create accounts in their mind and keep assets and liabilities separately. Senior citizens do not see house as an effective retirement tool due to mental accounting bias. When leaving estate to heirs is a high priority, a reverse mortgage may not be a viable option to increase retirement income.

SCOPE & LIMITATION OF STUDY

Exploring this area in more detail could be helpful to the policy makers. The current study is restricted to check the biasness of senior citizens related to reverse mortgage scheme. The results of the study and policy implications that follow could lead to developing new versions of the product, changes in the regulatory infrastructure to protect the borrowers and lenders or involvement of new institutions that could improve the product appeal for borrowers as well as lenders.

REFERENCES

- Brar, Jasmindeep, (2011). Reverse mortgage: its potentials in Indian market, Pranjana: *The Journal of Management Awareness*.
- Clarence C. Rose, (2009). Effective Use of Reverse mortgage in Retirement, *Journal of Financial Service Professionals*
- Danile, Teresa, The in's and out's of the reverse, *Proceedings of ASBBS*, Volume 21
- Delgadillo, L., Stokes, R., Lown, M. (2014). Descriptive Analysis of Reverse Mortgage Counseling Clients. , *Journal of Financial Counseling and Planning*, Volume 25, Issue 2,
- Deng, Y., Seungryul, MA., (2013). Evaluation of Reverse Mortgage Programs in Korea, *Seoul Journal of Business*.
- Doling, John., Overton Louise., *The European Commission's Green Paper: reverse mortgages as a source of retirement income*

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- Hui Shan, (2011). Reversing the Trend: The Recent Expansion of the Reverse Mortgage Market, *Real estate economics*, Vol 39, Issue 4, pp 743-768.
- Lynch, C, N., Pryor, Charles., (2012). Properly Assessing the Reverse Mortgage Option, *Journal of Accountancy*.
- Pfeiffer, Shaun., Schaal Angus., Salt J., (2014). HECM Reverse Mortgages: Now or Last Resort, *Journal of Financial Planning*.
- R. Salter, John., (2014). The Home Equity Conversion Mortgage: An Overdue Introduction, *Journal of Financial Service Professionals*, Volume 68, pp. 15-18(4).
- Reverse Mortgages Get a Makeover, (2016). Kiplinger's Personal Finance.
- Rose, Clarence,C., (2009). The effective use of reverse mortgages in Retirement, *Journal of Financial Service Professionals*.
- Tribunella, (2014). 20 Questions about Reverse Mortgage, *CPA Journal*.
- Weber A Joseph., Chang, Echo., (2006). "The Reverse Mortgage and Its Ethical Concerns, *Journal of Personal Finance*, 37-53.