TRENDS IN RETIREMENT SAVING: EVIDENCE FROM AN ONLINE SURVEY OF ROMANIAN HOUSEHOLDS

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Abstract

  In the context of the population aging and the demographic crisis throughout Europe and the developed world, the public pension systems will become increasingly strained as the proportion of pensioners to the working population will continue to increase. Empirical evidence shows that individuals fail to save enough for retirement to compensate for the less than optimal level of public pensions, and thus are facing the risk of a decrease in the standard of living in their post-retirement years. This larger context makes the study of retirement saving behavior an important matter. The objective of this paper is to document current trends in retirement saving behavior from the data collected through an online survey of Romanian households. The survey was distributed as an online questionnaire that collected 1285 of responses. The survey's objective was to document households' financial situation, as well as other psychological and social factors that might explain saving behavior. The analysis of the survey results indicates that there is a gap between intentions and actions when it comes to retirement saving. This gap and the resulting suboptimal retirement saving rates are explained in behavioral economics literature by anomalies in the inter-temporal choices of individuals, subject to self-control issues. We will see to what extent this gap is due to self-control issues and to what extent it is explained by the current financial situation of individuals. We will also conclude about possible retirement saving behavior influencing factors and motives.

1. Introduction

  While the population of Europe is aging, an incrementally higher proportion will be pensioners that will have to be financed by the salaries of working age population. Within the EU, about 30% of the population is projected to be 65 or over in 2060, up from 17% in 2010 [8]. In Romania, 35% of the population will be over 65 in 2060, up from 15% in 2010 (EU, 2012). In response to the aging of the population problem, many European governments, including the government of Romania, have expanded the role of existing private pension schemes placing a much greater responsibility on individuals for their pension income. This context makes individual saving for retirement an important factor for ensuring that individuals will maintain their standards of living when they retire.

  A good indicator of the extent to which pensioners manage to maintain their standard of living after retirement is the income replacement rate (ratio of average first pension to average last salary). While there is some controversy amongst economists about the optimal level of this indicator, the consensus is that it should be *at least 60%*. In spite of the public pension reforms that introduced the private plan component in the mandatory schemes, the pension income projections do not show a future adequate income replacement rate. The current income replacement rate is around 42% in Romania, while in the EU it stands at 49% [8], the projections for future income replacement rates show that the demographic crisis will make the retirement income replacement rates even lower over the next 50 years. It is estimated that in Romania in 2060, the income replacement rate will be 29% versus an average of 39% for EU 27 countries [8]. These levels are clearly under their optimal levels, indicating that future public pensions will not be sufficient for future pensioners to maintain the same standard of life in their post-retirement years.

  In this larger context, it becomes increasingly important that individuals assume responsibility for their future retirement incomes and start saving at appropriate levels for achieving an optimal income replacement rate. Empirical evidence shows that individuals fail to achieve optimal retirement saving rates. For instance one study conducted by Aviva [7] found that within the EU there is a €1.9 trillion annual gap between the level of required savings and the level of actual savings for retirement. Similarly, in Romania this gap is €40 billion each year, according to Aviva.

2. Research methodology & objectives

In the larger context of the demographic crisis and the dire projections for income replacement rates in EU in general, and in particular in Romania, the objective of the research described in this paper was to understand the current trends in individuals' saving behavior in general, and the retirement saving behavior in particular, in Romania.

The study methodology consisted of a survey questionnaire tool, distributed online to randomly selected users. The survey asked a number of questions about current income, current financial situation or ability to meet current expenses, general saving behavior, retirement saving behavior, wealth and debt, and asset choices. The survey collected 1285 responses from individuals with a median personal income of 440 EUR, mean age of 41 years old, median household income of 795 EUR and a mean number of household members of 2.8. Compared to the general population of Romania, where the median household income is 580 EUR, this survey respondents are wealthier, which is normal considering that they are online users in the first place. The age distribution of the survey respondents was slightly skewed to the left, compared with the distribution of the total population of Romania which is slightly skewed to the right, meaning that a larger number of survey respondents were less than 40 years old compared to the population at large. Consequently, caution should be exercised when extrapolating conclusions from this survey results to the larger population of Romania. However, in spite of its sampling shortcomings, this survey allows for a good understanding of some important factors that affect saving behavior.

A primary objective of this study was to quantify information about individuals' financial situation and wealth and to link this information to behavioral characteristics. In the first part of the questionnaire, the saving capability of survey respondents is assessed by asking them how much money they have at the end of the month, after paying all current expenses. Saving behavior in general and retirement saving behavior in particular are influenced directly by the saving capability, as it was found in other studies [2]. In the second part of the questionnaire, respondents are asked o series of questions about their saving behavior and motives.

A secondary objective of the study was to compute the net saving rate, starting from wealth and borrowings, but it failed in this respect due to high nonresponse rates to these questions. However, the respondents were asked *what are their current and desired saving rates* are or what should they be, therefore some conclusions can still be drawn, but to what extent the actual saving rates are consistent to declared ones cannot be inferred from the data. This study adds value to current available research by providing some important data about general saving and retirement saving rates, general saving motives, saving rules and asset choice behavior.

3. The theories of saving

According to Keynes' "*fundamental psychological law*" derived from observations of consumers' saving and consumption behavior, consumption and saving depend on the level of income: "*men are disposed, as a rule and on the average to increase their consumption as income increases, but not by as much as the increase in their income*" [1]. In contrast to Keynes' theory, Modigliani in his the Life-Cycle Model postulated that savings depend on the demographic structure of the society rather than on the level of income. According to Modigliani's theory that dominated economic thinking for decades, individuals, acting as perfectly rational agents, are balancing consumption and savings throughout their lives, maximizing a function of life-time expected utilities [3]. Therefore, consumption should be smoothened throughout individuals' life-time. The theory states that young individuals in their 20's and 30's are going through a period of negative saving while borrowing against future income, then in middle-age they are starting to accumulate wealth and after retirement they start to decumulate their wealth. One important assumption in Modigliani's theory is the absence of bequests. This saving and consumption pattern allows individuals to smoothen their consumption throughout their lifetime, having a relatively similar standard of living before and after retirement.

Since the 80's, Modigliani's theory has come under attack due to the lack of empirical evidence [1]. First of all, the evidence shows that elderly people continue to save a relevant portion of their income and often do leave large bequests to their children. Second, pensioners' level of consumption quite often drops dramatically after retirement due to the lack of proper savings to ensure a similar consumption pattern after retirement. Other studies show that young people actually have positive saving rates.

In recent literature, consumption and saving decisions are analyzed as inter-temporal choices where self-control is an important element. This concept was largely discussed by Shefrin and Thaler that defined self-control as "*a trade-off between immediate gratification and long run benefits*"[6]. There is an individual cost associated with self-control and this type of internal conflict is not present in the choice people use to involve when they decide between a white shirt and a black shirt. Contrary to neoclassical theory that treats inter-temporal choice as any other choice, behavioral theory maintains that people tend to put more value on immediate consumption than to future consumption and spend their earnings instantaneously, resulting in less than optimal savings for future events, such as retirement. It is said that people are *time-inconsistent* and have *self-control* problems when it comes to their consumption and saving behavior.

Many individuals are aware of this shortcoming and try to cope with self-control issues by making *rules of thumb*, such as depositing a fixed amount every month in a life-insurance product or by creating *mental accounts* and treating money differently depending on mental labeling. For example, regular income is more likely to be consumed that an

unexpected bonus. The concept of *rules of thumb* and *mental accounting* is a new concept from behavioral economics [6]. Shefrin and Thaler modeled the behavioral features highlighted above and mathematically defined several propositions that predict consumer saving behavior. For example, in prediction number 4 of the model they say: "*In the absence of sufficiently large Social Security and pension programs, retirement consumption will be less than pre-retirement consumption*" [6] implying that people miss their retirement saving targets predicted by Modigliani.

4. Saving capability

As Keynes observed, the propensity to save is influenced by the individual financial situation. In order to assess individuals'' financial situation, at the beginning of the survey, respondents are asked how well do they cope with current expenses. They are asked to pick among 5 choices gradually going from „*I have enough money*" to „*I never have enough money*". In Figure no. 1, we analyze the saving capability, defined as the availability of disposable income after paying current expenses. The darker the chart is, the better the financial situation of the respondent. The age groups with the best financial situation are the 25-39 years old group and the 65+ years old group. In the 25-39 years old group 46% of respondents say that they have often or always enough money, whereas in the 65+ years old group 55% of respondents are in this situation. These two groups of respondents are the most capable of saving.
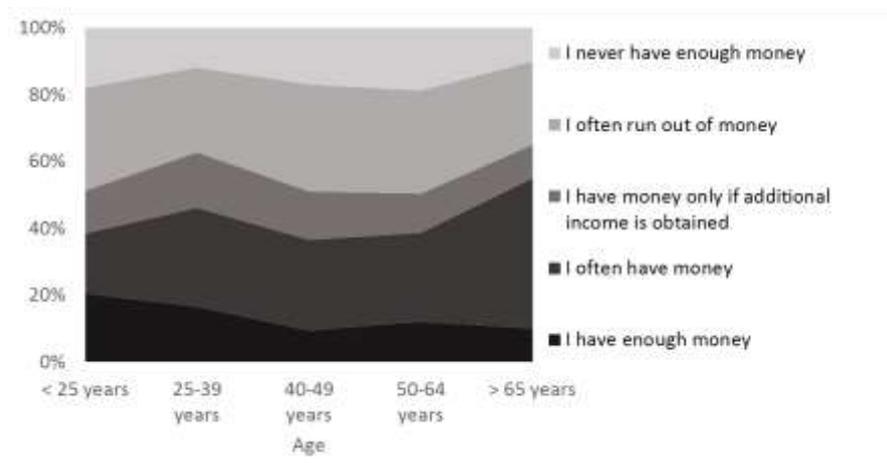

Figure no. 1. **Saving Capability by Age**

Saving capability actually results in higher saving rates, or any savings for that matter, as we can see in Figure no. 2 below. In this figure we can observe that individuals declaring a saving rate of above 10% have the highest saving capability. In the 10%+ saving rate, more than 88% saying they often or always have money left after paying for current expenses.
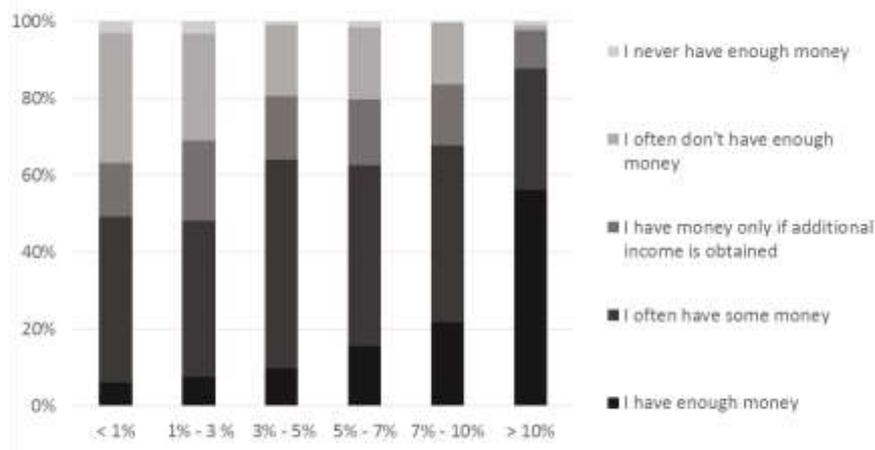

Figure no. 2. **Saving Rate by Saving Capability**

5. Saving behavior

Due to the fact that people often save for general purposes and retirement may happen to be one of them, before asking specific questions about their saving for retirement habits, individuals have to respond questions about their saving behavior in general. In Romania in particular, where retirement plans are in their early years, many individuals are believed to save for retirement using various other asset accumulations, such as bank deposits, real estate, valuables or even cash. People many place mental labels on such savings, but these products are not always formerly named „retirement" products; therefore it is hard to determine the exact proportion of retirement saving in general savings. After asking general questions about saving behavior, respondents are asked to make an effort to separate savings for retirement purposes from other savings.

5.1. General saving behavior

Although financial capability is one important factor in saving behavior, it is not the only influencing factor. It has been argued [5] that „*in the process of identification of the determinants of saving one must not focus their attention only on demographic and economic variables. The propensity to save may be influenced by cultural factors or by the financial education of the population.*" Trying to identify especially the cultural behavioral factors affecting the saving behavior, in the following parts of the questionnaire, respondents were asked to respond to a series of behavioral questions. After assessing the respondents' saving capability, they were asked to choose among five statements defining their current saving behavior (Figure 3). They could choose from options such as „*I regularly make deposits in saving accounts*" to „*I don't want save, I want to enjoy life*". About 28% of respondents could be classified as regular savers, making monthly deposits of some sort, while about 45% could be classified as non-savers, saying they either don't have enough money to save or they don't want to save and rather want to enjoy life. The remaining 27% could be either savers or nonsavers, depending on their current financial circumstances. This group declared they save only if they have money left at the end of the month.
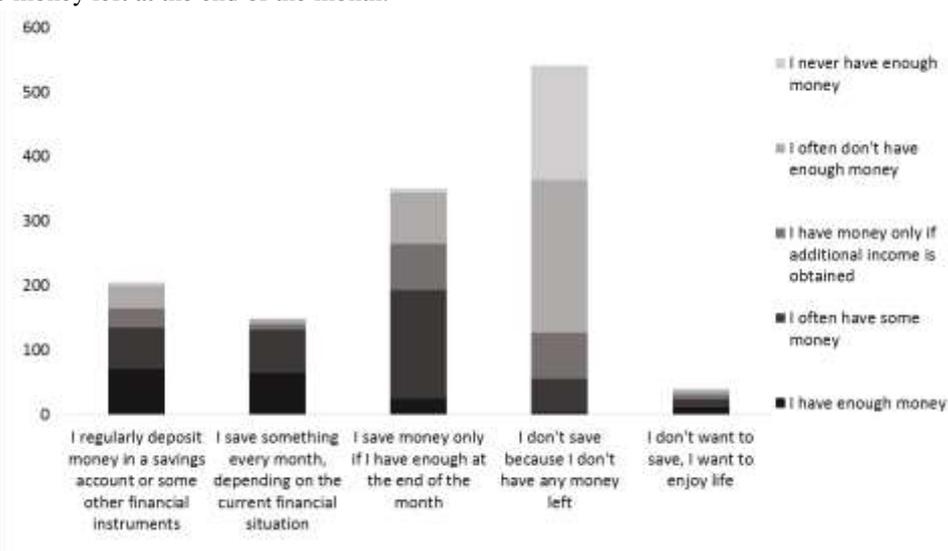

Figure no. 3. **Respondents Distribution by Behavioral Factors**

The net saving rate is computed in the economic literature by dividing household net savings to disposable income. This survey aimed to determine net savings by asking questions about wealth and debt, however due to high nonresponse rates and/or unreliable responses, it failed to compute a reliable net saving rate. Respondents were nevertheless asked *what is their saving rate* and the following analysis is based on respondents net saving rates estimates. When looking at Figure no. 4 below, we can see that the largest proportion of savers are amongst the 25-39 age group, and the older than 50 groups. This chart does not confirm Modigliani's theory that individuals have virtually no savings in their early years and at old age. The proportion of savers in each group does not vary that much by age, the number of savers being somewhere between 30-40% for age groups, indicating that there is something else than age that influences saving behavior.
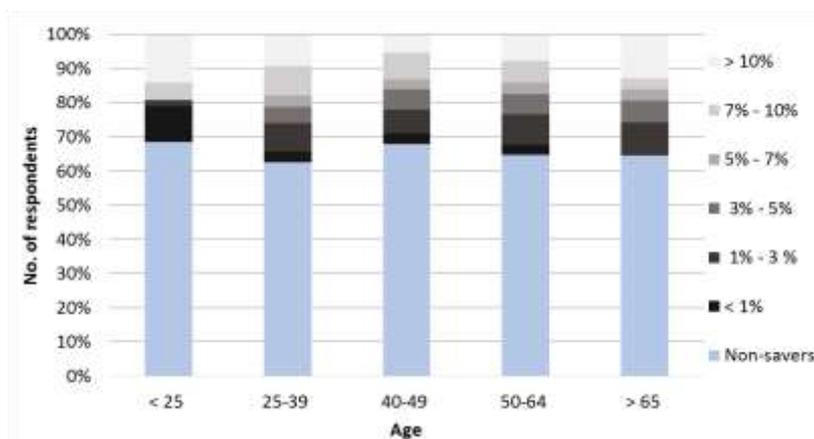
Figure no. 4. **Saving Rate by Age**

Survey respondents were also asked how much they save, as a percent of current income. For ease of obtaining responses, they were asked to choose from several intervals rather than give their estimations. When computing an estimated average saving rate by age groups, we don't see major differences in the different age groups. In the <25 and the 65+ groups the average estimated saving rate is 7%, slightly higher than the 6% estimated in the other groups, contrary to Modigliani's prediction of saving rates.

When asked about their saving motives (Table no. 1 below), the most important saving motives for young groups (under 40) are buying a home, having a reserve, vacations and major acquisitions. Respondents in the 50+ groups say that the most important saving motives are helping kids or grandkids, having a reserve, buying a house, and for old age provision. About 20% of the 50+ groups say that they are saving in order to leave a bequest, which is in contradiction with Modigliani's prediction of not bequests.

Table no. 1. **Saving Motives by Age**
(% of respondents for which the respective motive is important or very important)

SAVING MOTIVE / AGE	<25	25-39	40-49	50-65	65+
For buying a home	15	38	31	29	15
For having a reserve	15	38	31	29	15
For reimbursing debt	13	23	18	18	5
Old age provision	8	27	30	27	5
For vacations	21	29	19	18	15
For major acquisitions	18	29	20	19	15
For helping kids/grandkids	-	24	25	32	30
For leaving a bequest	-	15	16	20	20

After getting a general overview of respondents saving behavior and motives, in the second part of the survey respondents are asked a series of questions about retirement savings.

5.2. Retirement saving behavior

Survey participants are asked how much they are saving for retirement (as a percent of current income) and how much they think they should save, revealing that there is a gap between intended and actual behavior. In Figure no. 5 below, we can see that the majority of respondents (55%) are placed above the diagonal line, meaning that they think they should save more than they actually do. About 43% of respondents actually save at their desired rate of retirement saving, whereas a small group of outliers (3%) save more than they think they should.
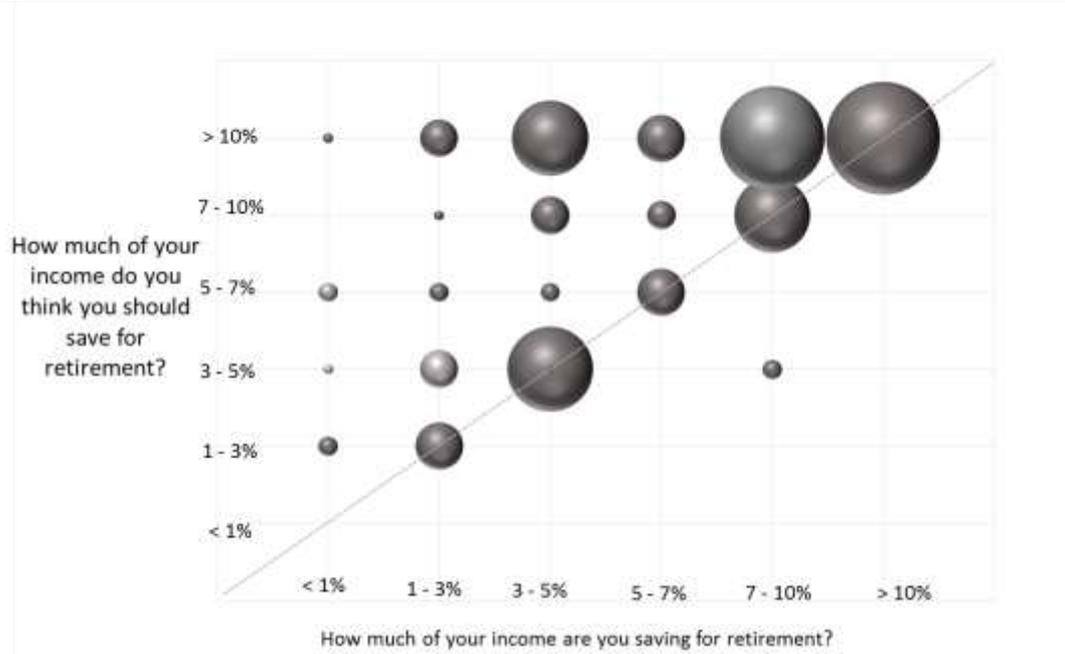
Figure no. 5. **Actual vs. Intended Saving Behavior**

Individuals that declared they should save more than they actually do, are asked why they think they fail to meet their plans. An overwhelming majority (82%) chose reasons related to saving capability (*I don't have enough money after paying the bills, I have too much debt,* or *my mortgage payment is too high*). Only 6% say they „*spend too much*" and 12% say they are „*not thinking about the future*", leading us to attribute to them *self-control* issues discussed in the behavioral theories. When asked if they are planning to save more for retirement in the future, 60% say they do so.

The declared retirement saving rate for the 25-49 years old groups is 4.2% of net income, whereas for the 50 to 64 years old group this rate is 5%. Individuals under 25 years old declared they save 1.3% of net income on average.

5.3. Asset choice

When it comes to preferred assets for general savings, checking and saving accounts are by far the preferred forms. Cash is also an important choice for many respondents, while life insurance products and private pension plans are the second order of preferred choices. It is worth noticing that there is no particular age distribution of the different asset choices, indicating that there aren't major differences in the different age groups.
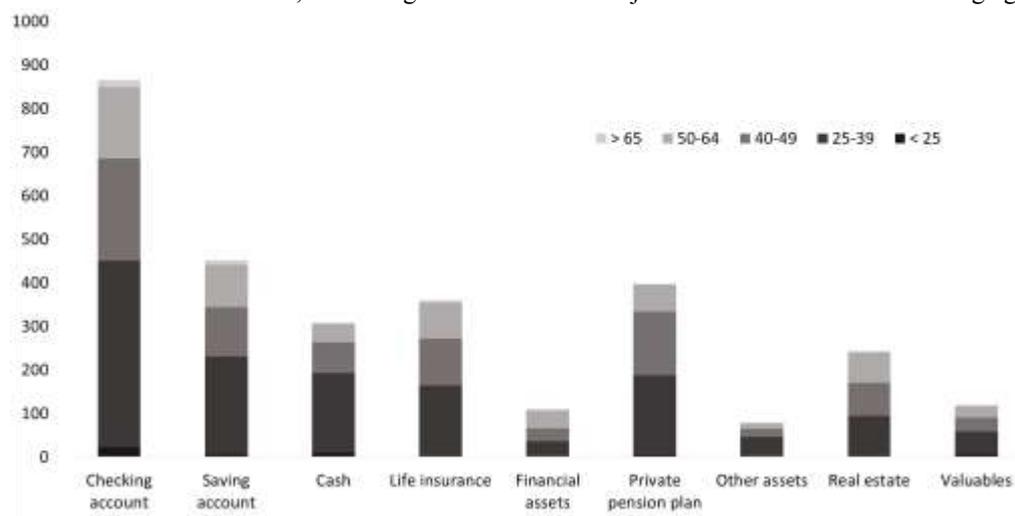

Figure no. 6. **Proffered Asset Choice**

When asked about their preferred assets for retirement savings, 63% of survey respondents mentioned life insurance and private pension plans and 18% said that they use bank deposits. Financial instruments such as stocks and bonds are used by only 6% of respondents.

6. Conclusions

The results of this study reveal several important ideas: that saving behavior is influenced by the saving capability and the individual life-cycle phase, but also by individuals' personal preferences or cultural factors; that there is a gap between actual retirement saving rates and desired rates and that individuals are aware of this mismatch and most of them plan to save more for retirement in the future.

In the end of the survey, individuals were asked how satisfied they are with their current level of preparedness for retirement and only 36% declared they are at least satisfied. The general level of satisfaction is higher in the higher income groups, which is normal considering that higher income individuals save more in general, and save more for retirement in particular. This last question is important in the sense that it reveals that individuals are aware that they should save more for retirement and awareness is a first step in correcting behavior. The raised awareness creates good grounds for discussing and promoting private and public policies that could stimulate individuals to achieve their retirement saving goals. This would be an ethical aim for the society as a whole, in the demographic context of this century.

Acknowledgement

7. References

[1] **Baranzini M**., Modigliani's life-cycle theory of savings fifty years later. BNL Quarterly Review, vol, LVIII, no. 233-234, June-Sep 2005, pp. 109-72, 2005;

[2] **Börsch-Supan A., Coppola M., Essig L., Eymann A., Schunk D.** "The German SAVE Study. Design and Results", Manheim Research Institute for the Economics of Aging (MEA), Universität Mannheim, Germany, 2009;

[3] **Deaton A.**, Franco Modigliani and the Life Cycle Theory of Consumption. Convegno Internazionale Franco Modgliani, Accademia Nazionale dei Lincei, Rome, February 17th–18th, 2005

[4] **Laibson D., Repetto A., Tobacman J**., Self-Control and Saving for Retirement. Brookings Papers on Economic Activity, 1:1998, pp. 91-196, 1998

[5] **Niculescu-Aron I., Mihaescu C.,** Household Savings in Western European Countries. A General Overview. Journal of Social and Economic Statistics, No. 2, Vol. 1, Winter 2012, pp. 48-58, 2012;

[6] **Shefrin, H.M., Thaler R.**, Advanced Behavioral Economics, Chapter 14: Mental Accounting, Saving and Self-Control. Russel Sage Foundation, Princeton University Press, Kindle Edition - Location 10148-11010, 2004;

[7] ***www.aviva.com, Aviva. Real retirement report. Spring 2013;

[8] ***www.ec.europa.eu, European Union, European Commission, "The 2012 Ageing Report, 2012;