

The Impact of Household Wealth and Other Factors on Retirement Saving Behaviour in an Ageing Society: The Case of Lithuania

The main aim of the paper is to analyse the impact of household wealth (real estate, financial and other assets), income, age, education and gender on the saving for retirement behaviour of Lithuanian households. The wealth of households is one of the possible guarantees to ensure welfare in old age or another “force majeure” situation. Both non-financial and financial assets can be the saving instruments or factors influencing saving behaviour. The paper presents how much and what kind of assets Lithuanian households have accumulated and what level of income and financial ability to save they have. The research is based on the data from the Household Finance and Consumption Survey (HFCS). Data analysis reveals income and education is the most influential factors of retirement saving behaviour, households’ wealth has a positive and negative impact on retirement saving behaviour.

Keywords: household saving behaviour, retirement saving, behavioural economics.

Pagrindinis straipsnio tikslas – analizuoti namų ūkių turto (nekilnojamojo, finansinio ir kito turto), pajamų, amžiaus, išsilavinimo ir lyties įtaką Lietuvos namų ūkių elgsenai taupant pensijai. Namų ūkių turtas yra viena iš galimų garantijų užtikrinti gerovę senatvėje ar kitoje *force majeure* situacijoje. Tiek nefinansinis, tiek finansinis turtas gali būti taupymo priemonė arba veiksnys, darantis įtaką taupymo elgsenai. Straipsnyje pateikiama, kiek ir kokio turto Lietuvos namų ūkiai yra sukaupę, kokį pajamų lygį ir finansinį pajėgumą taupyti turi. Tyrimas pagrįstas namų ūkių finansų ir vartojimo tyrimo (HFCS) duomenų analize. Duomenų analizė atskleidžia, kad pajamos ir išsilavinimas yra įtakingiausi taupymo pensijai veiksniai, namų ūkių turtas teigiamai ir neigiamai veikia elgseną taupant pensijai.

Raktiniai žodžiai: namų ūkių taupymo elgsena, taupymas pensijai, elgsenos ekonomika.

Introduction

The paper analyses the impact of Lithuanian households’ wealth, income and demographic parameters on retirement saving behaviour. The research is based on the data from the Household Finance and Consumption Survey (HFCS¹).

Household saving and consumption behaviour has a significant impact on

the financial stability of the economy. Households are treated as one of the main saving sectors in the economy, and their saving behaviour is determined by cultural, social, demographic, economic and even psychological factors. Identifying these factors is an important task for researchers in order to provide recommendations for social policymaking to encourage households to save.

¹ Household Finance and Consumption Network (HFCN) (europa.eu)

Both saving and consumption behaviour are influenced by demographic changes in societies that emerged in economically developed countries decades ago (Belke et al., 2015; Börsch-Supan, 1995, 2007, 2011; Campbell, Weinberg, 2015; Lazutka, 2006; Stankūnienė, 2017). Statistics reveal that birth rates are falling, people are getting older, and societies are ageing². When the society is ageing, the share of people of retirement age in the population increases³. As a result, the working population must maintain an increasing share of retirees. The UN predicts that the dependency ratio of older people (65+) in the world will be 28.4 percent in 2050⁴. However, public pension systems fail to ensure the living standards of pensioners (Barr, 2002, 2004; Barr, Diamond, 2006; Campbell, Weinberg, 2015; Chatterjee et al., 2017; Clark et al., 2019; Fisher, Anong, 2012; Lazutka, 2007; Lusardi, 2001; Munnell et al., 2014 in: Asebedo et al., 2019; Skinner, 2006; Thaler, Benartzi, 2004; Topoleski, 2013). Replacement rates do not succeed 70 per cent in EU countries (OECD, 2021). It was only 30.7 per cent in Lithuania in 2020 (OECD, 2021)⁵. Households are encouraged to save more for retirement, but literature reveals that most of them do not save enough for retirement (Belke et al., 2015; Blau, 2016; Börsch-Supan, 1995, 2007; 2011; Campbell, Weinberg, 2015; Chatterjee et al., 2017; Clark et al., 2019; Fisher, Anong, 2012; Ipek, Sekmen, 2016; Lazutka, 2007; Lusardi, 2001; Rey-Ares et al., 2018; Skinner, 2006;

Strömbäck et al., 2017; Thaler, Benartzi, 2004; Topoleski, 2013).

Therefore, solutions are being sought to ensure enough wealth for the old-age population. Household wealth is one of the guarantees that can ensure the required standard of living in old age or appropriate dealing with unexpected life events. Furthermore, both non-financial and financial assets can be one of the saving instruments or factors influencing saving behaviour. Therefore, the research paper presents how much and what kind of assets Lithuanian households have accumulated, their income, and how much it determines their saving behaviour.

Economic research discovers that household assets, income, education, age, gender, financial literacy, psychological and other factors work as potential influencers of saving behaviour (Asebedo et al., 2019; Belke et al., 2015; Börsch-Supan, 1995, 2007; Blau, 2016; Chatterjee, 2017; Clark et al., 2019; Croy et al., 2015; Holden, Schrass, 2022; Ipek, Sekmen, 2016; Kapounek et al., 2016; Lusardi, 2011; Skinner, 2006; Strömbäck et al., 2017; Rey-Ares et al., 2018; Topoleski, 2013; Wong, 2019).

The research problem is to find out what is the impact of wealth and other factors on household saving for the retirement?

The main aim of the paper is to analyse the impact of household wealth (non-financial and financial assets), income and social demographic factors on

² Rodikliu duomenų bazė - Oficialiosios statistikos portalas

³ <https://population.un.org/wpp/Graphs/Probabilistic/PopPerc/65plus/900>

⁴ World Population Prospects - Population Division - United Nations

⁵ <https://data.oecd.org/pension/net-pension-replacement-rates.htm>, Pensions at a Glance (oecd.org)

Lithuanian households' saving for retirement behaviour.

Research object: retirement saving behaviour of Lithuanian households.

Research methods: descriptive statistics analysis, correlation analysis, multivariate linear regression, bivariate regression analysis.

The main objectives of the article:

- To analyse the impact of financial assets on the likelihood of saving for old age and having a voluntary pension or life insurance plan.
- To analyse the impact of non-financial assets on the likelihood of saving for old age and having a voluntary pension or life insurance plan.
- To evaluate social-demographic characteristics' impact on the likelihood of saving for old age and having a voluntary pension or life insurance plan.

The following research statements were verified based on the HFCS data and other research findings:

- As the education of a household reference person grows, the value of voluntary pension/life insurance and the likelihood that the household will save for old age grows.
- As household income grows, the value of voluntary retirement and the likelihood that the household will save for old age grows.
- As the value of a household's real estate increases, the value of voluntary pension/life insurance and the likelihood that the household will save for old age decrease.
- As the value of a household's financial assets increases, the value of voluntary pension/life insurance and the likelihood that the household will save for old age grows.

This study does not assess the extent to which household assets provide well-being in old age. Instead, the paper examines the extent to which household assets lead to household saving behaviour: whether a higher household value leads to more cases of voluntary pension/life insurance and a conscious choice to save for old age.

A literature review reveals two dominant theoretical approaches that analyse household saving for retirement behaviour. It is a traditional life-cycle model and a theoretical approach suggested by behavioural economists. The first approach sees people as rational beings who know what economic and financial decisions must be made for their best interests. Supporters of this approach employ the principles of the life-cycle hypothesis of individual savings developed by F. Modigliani (1986). Supporters of the life-cycle model follow the intertemporal consumption model proposed by Irving Fisher, which assumes that consumers rationally plan their future income and consumption throughout the life cycle. They maximize their satisfaction throughout life, ensure smooth and balanced consumption, save for old age and plan lending during the working age period (Barr, 2004). One of the patriarchs of the life-cycle theory, F. Modigliani (1986), argues that people rationally think about retirement and the need to save for old age throughout their lives. As a result, people rationally plan their consumption at the stages of their life cycle. When they reach retirement age, they stop saving and make a living using the wealth accumulated over their working lives or savings (Modigliani, 1986; Deaton, 2005). Therefore, it can be assumed that

the state does not need to do anything because people will take care of their own lives and consumption opportunities now and in the future.

However, research in various countries reveals that most people fail to save enough wealth to guarantee their desired consumption and standard of living in retirement (Skinner, 2006; Topoleski, 2013). The saving rate of US households has declined since the end of the 20th century (Fisher, Anong, 2012; Campbell, Weinberg, 2015). Some studies conclude that households with similar incomes accumulate different wealth in retirement (Lusardi, 2001). Therefore, the life-cycle theory was reconsidered by behavioural economists. They declared that people had bounded rationality. The second approach states that nature often determines the decisions of human beings. R. H. Thaler and S. Shefrin (1988) introduced the behavioural life-cycle hypothesis, according to which there is an internal conflict inside the person – the “planner” who thinks about the future and the “doer” who cares only about the present day. Research by Daniel Kahneman (2011) and colleagues confirms that people have bounded rationality. Nicholas Barr (2004), one of the most prominent authors on the welfare economy, supports the ideas of behavioural economists. He argues that “if people are rationally able to redistribute consumption throughout the life-cycle, there would be no need for a welfare state and states just should support people born into poverty” (Barr, 2004, p. 11). According to N. Barr, people are cannot rationally redistribute consumption in the life cycle, so the state must look for different solutions (Barr, 2010).

Behavioural economists R. H. Thaler and C. R. Sunstein (2009) divided humans into *econs* and *humans*. Scientists think people are more *human* than *econ*. People lack self-control and have intentions to save but do not do it. They avoid taking a risk or take it under the influence of inertia, a status quo and other biases. As a result, people often choose what is more enjoyable than beneficial (e.g., eating a cake rather than going to a gym or spending today on a specific need rather than postponing it for tomorrow). It explains why many people do not save enough for retirement or do not save at all (Thaler, Sunstein, 2009, p. 122, 2016, p. 314). Behavioural economists believe that the government, non-governmental and business organisations, the so-called “choice architects”, should take responsibility for helping and “nudge” people to make choices for the most beneficial solution in various situations in their lives (Thaler, Sunstein, 2009). Therefore, it is essential to study people’s behaviour, decision-making process, expectations, attitudes, values, cultural, social, political, and other factors that reveal what would encourage people to save and choose the best decisions for them.

The first chapter of the paper presents the research methodology, the data sources, and the specification of the research model. An empirical analysis follows it in the second chapter. The empirical analysis is divided into two parts. The first empirical section presents the descriptive statistics of the data on household assets, income, and household savings for pensions. The data allow us to see to what extent Lithuanian households save for retirement, how much property they have and what saving instruments

they use. The results show that a small part of Lithuanian households rationally saves for retirement. The majority do not choose financial pension-saving instruments. Therefore, the findings of behavioural economists, according to which the population should be encouraged to save through various incentives, are necessary. The second empirical section presents the correlation and regression analysis of the data, which reveals how much the household assets, household income, gender, age, and education determine the value of a voluntary pension or life insurance and the probability of households saving for old age.

Data and methodology

Data sources

The empirical analysis is based on micro-level data from the Household Finance and Consumption Survey (HFCS). The HFCS is a joint project of central banks and national statistical institutes of the European Union. A triennial survey provides detailed country-representative household-level data on various aspects of household balance sheets and related economic and demographic variables, including income, pensions, employment, gifts, measures of consumption and attitudes to finance behaviour.

Data collection methods

A representative survey was conducted in December 2017 – May 2018. External sources were used to calibrate data: the population register, the real property register, the loan risk database in the NCB,

and the social security database of 2016. In addition, the aggregate sample was supplemented with the wealthiest households based on administrative property data from the Centre of Registers (20% of the total sample was extracted from the highest decile in registered assets) to ensure the representativeness of the sample. As a result, the net sample size accounted for 1,664 households, and the total sample of all the respondents equalled 3,774.

Variables

Two dependent variables are used in data analysis: “saving for old age” (save/do not save) and “value of voluntary pension/life insurance”. The first dependent variable – “saving for old age” – shows the households’ saving motive to save for old-age provision. The second dependent variable – “voluntary pension/life insurance value” – reveals the value of the voluntary pension plan or life insurance of households using this retirement saving instrument. The survey data do not allow us to estimate the distribution of the II and III pillar pension funds because the data obtained from the HFCS network were re-encoded. During the survey, households were asked the following questions: “How many pensions, and life insurance plans (in numbers) do you (another household member) participate in? Include only those which are not yet in payment”. The answer options were as follows: 1. State social insurance old-age pension; 2. II pillar pension funds (without an additional 2%); 3. II pillar pension funds (with an additional 2%); 4. III pillar pension funds; 5. Investment life

insurance; 6. Other. What is their value? Answers 2, 3, 4, 5 and 6 were combined.

The first variable reflects the disposition of Lithuanian households towards rational behaviour, which is discussed in the traditional economic theory because it includes households that, without nudging, rationally decide to save or not to save for old age. The second variable reveals what households choose a voluntary pension or life insurance as a saving measure for retirement by being nudged by the state (the state contributes to the accumulation of savings in II pillar pension funds).

The correlation and regression of the dependent variables with the independent variables were implemented during the analysis. Independent variables:

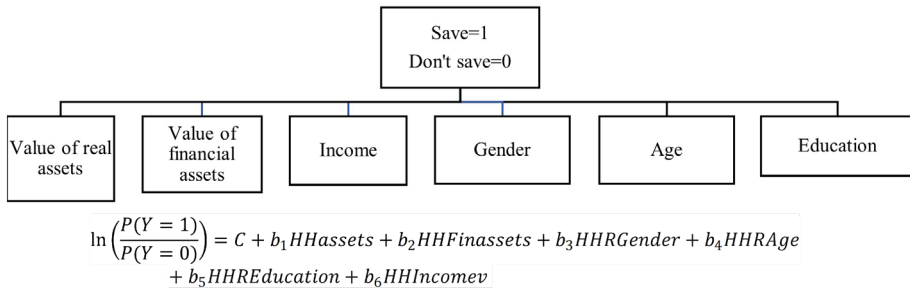
1. Value of household real estate and other assets excluding household main residence

2. Value of financial assets of household excluding value of deposits in the current accounts and value of a voluntary pension or life insurance
3. The annual income of households
4. Education of household reference person
5. Age of household reference person
6. Gender of household reference person

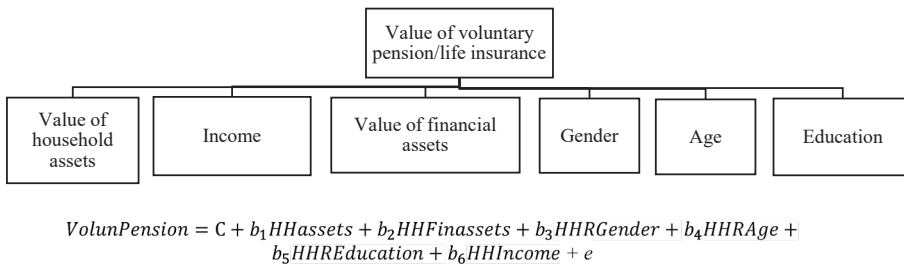
Model specification

1. Saving for old age

A binary logistic regression model is applied, which allows us to predict the probabilities of the values of the categorical variable (saves-does not save). A similar study was conducted by Polish scientists (Pieńkowska-Kamieniecka, Walczak, 2015).



2. Value of voluntary pension/life insurance



Data review, analysis and results

Main characteristics of the sample

The HFCS data summarize two representative units: the household and the household member. The household's socio-demographic characteristics are reflected by the household's reference person who answered the household questions. For further analysis, the household is used as a representative unit. Sample characteristics are provided in Table 1.

Households' financial ability to save

When analysing saving behaviour, it is essential to determine the households' financial ability to save. Based on the life-cycle hypothesis, households rationally plan their consumption during the life cycle. They consume smoothly and save for old age. However, the research reveals that some households cannot save because their expenses are equal or higher than income. The reasons for this can be both low income and irrational consumption. The HFCS data allow us to select the

Table 1. Descriptive statistics of households

Marital status											Per cent	
Single/never married											19.0	
Married											54.0	
Consensual union on a legal basis											8.0	
Widow											10.0	
Divorced											9.0	
Education of reference person (per cent) ⁶											Per cent	
Early childhood education or no education or primary education											2.9	
Lower secondary education											7.6	
Upper secondary education or post-secondary non-tertiary education											47.6	
Short-cycle tertiary education/Bachelor or equivalent/Master or equivalent/Doctoral or equivalent											42.0	
Gender of reference person											Per cent	
Female											58	
Male											42	
Primary labour status of reference person											Per cent	
Employee											54.0	
Self-employed											5.6	
Unemployed											5.6	
Retired											26.2	
Other											8.7	

Age	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75+
Per cent	1.0	4.6	10.2	13.3	14.2	10.5	9.5	9.3	7.3	6.0	3.6	8.4

⁶ ECB data were re-encoded according to EU standards.

households that are financially able to save and to analyse their saving behaviour. The households that are not able to save are compared with those that are able to save.

The first variable included in the research is households' income. The income of a household influences the household's financial ability to save. Income is an essential factor to begin analysing saving behaviour. Households were asked about their expenses-income ratio in the last 12 months: "Aside from any purchases of assets over the last 12 months, would you say that your (household's) regular expenses were higher than your (household's) income, just about the same as your (household's) income or that (you/your household) spent less than (your/its) income?"

Regular expenses were lower than income for one-third (33.3 per cent) of Lithuanian households. So, it is possible to assume that only one-third of Lithuanian households are financially able to save. The average of the eurozone countries is 41.3 per cent, 19.9 per cent in Latvia and 30.8 per cent in Estonia.

The research model includes those households that have the potential to save, i.e. their running costs are lower than their income.

Wealth of households

This part of the paper provides an overview of the data on Lithuanian household

assets (tangible and financial), income, and pension saving instruments.

The household main residence

The value of the household main residence is not included in the research model (independent variable – "Value of real estate" and other household assets excludes the household main residence) as the data reveals that the majority (93.2 per cent) of the Lithuanian population live in their own residence (average in the eurozone is 60.3 per cent). It is also likely that the household main residence is not necessarily regarded as an investment in real estate but rather as a means of security for ageing or as an opportunity to leave a bequest for children. The loan instalment reduces consumption today but increases consumption in the future, as residents will not have to pay housing rent when they reach retirement age. Studies reveal that bequest is one of the saving motives for some households (Lusardi, 2001; Schunk, 2007; Jurgen, 2001).

The average household's main residence value is EUR 66,457 (mean) in Lithuania. The average value in the eurozone countries accounts for EUR 105,300. More statistics about the household main residence are provided in Table 2.

Table 2. Household main residence descriptive statistics

	Mean	Median	Min	Max
Year of acquisition of household main residence	1998	2002	1933	2018
Value at the time of household main residence acquisition, EUR	37 503	20 243	821	900000
Year of taking a loan for household main residence acquisition	2011	2013	2000	2011
Loan value to purchase household main residence EUR	50 171	37 200	5077	50 171
Present value of the household main residence, EUR	66 547	45 000	2 000	1500000

A. Jones et al. (2011), who compared the German and British housing markets and the impact of household wealth on retirement savings, note that only 43 per cent of the German population own the household main residence; others rent it. The household main residence is owned by 68 per cent of the population in the UK. According to scientists, the differences may be the size of the country's GDP, population attitudes to social benefits and state subsidies, population density, rental price indicators, the historical development of the housing market, the loan market and other factors (Jones et al., 2011).

Lithuanian households' main residence tenure status is closer to Great Britain's situation. Although most residences in Lithuania were acquired decades ago during the privatisation process (most of them privatised their residences for free), households traditionally continue to acquire dwellings. Most residences acquired after 2000 are purchased with a loan. The housing rental market in Lithuania is not sufficiently developed. Therefore, it is more convenient for households to purchase their housing. The state encourages young families to buy their first home by offering partial compensation for the mortgage. Only the second residence is taxed in Lithuania.

Other assets of households

In Lithuania, 21.9 per cent of Lithuanian households' state that they have another real estate apart from their main residence

(average in the eurozone is 24.8 per cent). Of these, almost one-third (31.3 per cent) own a house or an apartment, one-fifth (19.2 per cent) have a garage, and one-third (32.9 per cent) have a building plot/estate, field, forest, garden, or arable land. Detailed information on other household assets is provided in Table 3.

Financial assets of households

Unlike investing in real estate, financial assets can be treated as an investment method or a saving instrument that does not necessarily require a large amount of money. According to the HFCS data, the share of financial assets on total assets is only 4.7 per cent in Lithuania, 11.2 per cent in Estonia, 21.5 per cent in Denmark and the average in the eurozone is 19.1 per cent. Why is there such a difference? As investing in financial assets is riskier, risk aversion, as one of the attributes of human beings (in the view of behavioural economists), influences the lower prevalence of investing in financial assets among people. However, behavioural economists argue that most people in many countries can be characterised as risk-averse (Kahneman, 2011; Thaler, Sunstein, 2009, 2016). Therefore, such a difference between the Lithuanian population and other eurozone countries cannot be explained by this reason. Instead, it may be worth looking for the reasons for the economic, social and cultural differences between countries. On the one

Table 3. Value of non-financial assets (EUR thousands)

	Mean	Median	Min	Max
Value of another real estate	58.5	20.0	0.6	1000
Value of vehicles	5.7	3.0	0.1	250
Value of other valuables	1.2	0.7	0.07	20

hand, it is possible to assume that due to lower income in Lithuania, people have fewer opportunities to invest in financial and real estate assets. On the other hand, it is more common culturally and historically to invest in real estate and purchase a residence in Lithuania.

Studies of saving behaviour find a strong correlation between the likeliness to save and invest in financial assets and variables of financial literacy (Lusardi, 2008; Chard et al., 2017). However, the HFCS data do not reveal the impact of financial literacy on saving behaviour, as financial literacy questions were not included in the survey in Lithuania.

The majority (94.2 per cent) of Lithuanian households have current

bank accounts with an average value of EUR 2,007. Only one-tenth of households (10.6 per cent) have contractual saving accounts with an average value of EUR 7,354. Therefore, it can be assumed that some households use the current account as a necessity and as a saving instrument. However, due to the zero interest, contractual savings accounts are not a meaningful saving tool in Lithuania.

Thus, not only a tiny part of Lithuanian households has financial assets (excluding accounts), but also their value is not high. Therefore, compared to the euro area countries, this saving instrument is less widespread in Lithuania. Detailed information on financial household assets is provided in Tables 4–5.

Table 4. Types of households' financial assets (per cent)

Has below mentioned financial assets	
Deposits	90.4
Mutual funds	2.0
Bonds	0.7
Publicly traded shares	1.0
Money owned to household	5.9
Voluntary pension/life insurance	8.9
Other financial assets	1.6

Source: HFCS Statistical tables wave 2017.

Table 5. Value of financial assets by types (EUR thousands)

	Mean	Median	Min	Max
Value of current accounts	2.0	0.5	0	31.0
Value of saving accounts	7.35	2.0	0	30.0
Value of all accounts	0.27	0.6	0	44.0
Value of mutual funds	4.6	3.2	0.09	20.0
Value of bonds	9.3	8.0	3.0	22.6
Value of publicly traded shares	5.9	6.0	0.6	15.0
Value voluntary pension/whole life insurance	11.4	6.4	0	100.0
Value of other financial assets	14.5	14.0	2.5	21.1
Money owed to households	2.4	1.0	0.05	20.0
Value of managed accounts	9.1	6.0	5.7	100.0
Value of private non-self-employment business	35.8	10.0	0.5	10.0

Income

Income is one of the factors that determines saving behaviour. Income is also related to people's future expectations, which determine consumption and saving behaviour. Therefore, income is included in the survey model as an independent variable. The most significant sources of income for Lithuanian households are

employee income (69.4 per cent), public pension (26.2 per cent), and social benefits (16.7 per cent). Descriptive statistics of income are presented in Table 6. According to the survey, the total annual income of households was EUR 10,800 (mean) (median – EUR 7,100) in 2016 (EUR 42,300, the average in the eurozone). The distribution of gross income in quantiles is given in Table 7.

Table 6. Distribution of income sources (per cent)

Households' annual income ⁷	
Employee income	69.4
Self-employment income	12.4
Income from public pensions	26.2
Unemployment benefits	8.9
Regular social transfers (except pensions) ⁸	16.7
Income from financial assets, gross of interest payments	1.6
Income from private business other than self-employment	2.4
Other social transfers	11.5
Regular private transfers	8.5
Income from other private transfers ⁹	4.2
Income from other sources ¹⁰	1.4
Rental income from real estate property	1.9

Source: HFCS Statistical tables wave 2017.

Table 7. Annual gross income (EUR thousands)

	Mean
0-20%	0.6
20-40%	4.1
40-60%	7.2
60-80%	12.4
80-90%	20.0
90-100%	40.3

⁷ The income of all members of the household is added.

⁸ The income received by all household members from unemployment benefits and other social benefits or scholarships is added.

⁹ From friends, relatives, or other persons outside the household.

¹⁰ Early retirement, royalties, insurance, lottery, support, etc.

Households with a male as a reference person who has higher education, is self-employed, is 25–54 years of age, lives in a consensual union on a legal basis and owns a home without a loan receive a higher income than households with other demographic parameters.

Households' saving data

Pension plans of households

The HFCS data reveal that most Lithuanian taxes to the State Social Insurance System (SODRA¹¹). It guarantees to receive a pension at retirement age in Lithuania. SODRA is Pay-as-you-go (PAYG) model. It means working part of the population finance retired people.

Only a small (9.8 per cent) of Lithuanian households had a voluntary pension or life insurance in 2017, even though the state contributes to the payments of those who choose a voluntary pension fund and offers tax relief to those with life insurance. As mentioned, the survey data do not allow us to estimate the distribution of the II and III pillar pension plans.

The value of voluntary pension/life insurance is EUR 1,000 for the lowest decile and EUR 30,000 for the highest decile. The largest share with voluntary pension/life insurance is in the 34–45 age group (40.4 per cent), in two-person households (34 per cent), and households with a reference person with higher education (73.6 per cent). Detailed statistics of pension plans are presented in Tables 8–10.

Table 8. Value of pension plans (EUR thousands)

	Mean	Median	Min	Max
Value of voluntary pension/life insurance	11.4	6.4	0	100.0
Public pension income	4.6	3.6	0.6	36.4

Table 9. Have voluntary pension plan – age breakdown (%)

Age	Have voluntary pension/life insurance	
	No	Yes
16-24	1.1	0.3
25-34	14.3	18.3
35-44	26.0	40.4
45-54	19.7	22.4
55-64	17.1	11.9
65-74	10.3	3.0
75+	11.4	3.8
Total	100.0	100.0

¹¹ State Social Insurance Fund

Table 10. Have voluntary pension plan – education breakdown (%)

Education	Have voluntary pension/life insurance	
	No	Yes
Early childhood education or no education or primary education	2.5	0.0
Lower secondary education	7.1	1.8
Upper secondary education or post-secondary non-tertiary education	48.8	24.6
Short-cycle tertiary education/Bachelor or equivalent/Master or equivalent/Doctoral or equivalent	41.7	73.6
Total	100.0	100.0

Saving motives

Saving motives are one of the essential factors in analysing households' saving behaviour. Different saving motives influence saving forms and co-exist in the life cycle (Schunk, 2007).

Those households who responded that their expenses are lower than their income were asked about the purpose of saving:

“People have different reasons for saving, even though they may not be saving all the time. What are your (household's) most important reasons for saving?”

As already mentioned, one-third (33.3 per cent) of the households say their expenses are lower than their income; thus, such a share of households could save. However, calculating all

Lithuanian households, only 13.3 per cent of them save for old-age provisions; of those who can save, 52.5 per cent save for old-age provisions.

Although half (52.5 per cent) of “saving” households save for old-age provision, a similar part saves for children's education (50.6 per cent); it is worth mentioning that an even higher share (77.5 per cent) saves for unexpected life events, and a significant part (66.6 per cent) saves for vacation. Data reveals that the main motives to save are unexpected events and holidays. Children's education, other significant purchases and old-age provision are in the second place. Detailed figures of saving motives are presented in Table 11.

Table 11. Purpose of saving (%)

Purchase own home	17.7
Other major purchases (other residences, vehicles, furniture, etc.)	52.7
Set up a private business or finance investments in an existing business	12.1
Invest in financial assets	13.9
Provision for unexpected events	77.5
Paying off debts	23.4
Old-age provision	52.5
Travels/holidays	66.6
Education/support of children or grandchildren or other relatives	50.6
Bequests	10.8
Other	3.9

Data analysis and results

After performing the linear and binary logistic regression analyses of variables, it was analysed whether the value of Lithuanian households' assets, income, gender, age, and education determine the disposition of households to save for old age and to choose voluntary pension or life insurance.

Results of correlation analysis

Correlation analysis results are presented in Table 12. All correlations, except income with saving variable, are significant but with different strengths and directions. For example, there is no correlation between income and "saving for old age", but the income variable is positively correlated with the "value of voluntary pension/life insurance". Households with higher incomes are likelier to have higher voluntary pension/life insurance value.

The correlation for the variable "Value of all real estate other than household main residence" is negative and of medium strength with both "savings for old age" and "voluntary pension/life insurance value" variables. Thus, it can be

assumed that the households that invest in other real estate are less likely to invest in voluntary pension or life insurance, i.e., their value is lower, and they are less likely to save for old age. A trade-off between accumulation in private pension plans and investments in real estate was also revealed by C. Torricelli et al. (2016).

There is a strong correlation between the variable "value of voluntary pension/life insurance" and other variables on the value of financial assets. A correlation is observed between all the variables related to investing in financial assets. Households investing in financial instruments tend to accumulate more in private pension funds and save for old age.

A significant correlation between the variables is observed when summarising the results of the correlation analysis. There is a strong correlation between the dependent variables and the independent variables of the financial assets. Investors in financial assets are more likely to save for old age and invest in voluntary pension funds or life insurance. The value of voluntary pensions is higher for higher-educated households with a male reference person, although women are more likely to save for old age.

Table 12. Correlation

	Voluntary pension/ life insurance value	Saving for old age
Value of all real estate other than household main residence	-.251**	-.189**
Value of financial assets other than Private pension/Life Insurance and accounts	.436**	.111**
Gender of household reference person	-.060**	.139**
Age of household reference person	.048**	.124**
Education of household reference person	.052**	.111**
Household income	.174**	.003

Note: Correlation is significant at the level **p < .01.

The following statements are verified:

- As the education of a household reference person grows, the value of voluntary pension/life insurance and the likelihood that the household will save for old age grows.
- As household income grows, the value of voluntary retirement and the likelihood that the household will save for old age grows.
- As the value of a household's real estate increases, the value of voluntary pension/life insurance and the likelihood that the household will save for old age decrease.
- As the value of a household's financial assets increases, the value of voluntary pension/life insurance and the likelihood that the household will save for old age grows.

Results of binary logistic regression analysis

Results of binary logistic regression analysis are provided in Table 13.

A binary logistic regression was chosen to predict the probabilities of the

values of the categorical variable (save/do not save). The model uses "saving for old age" as the dependent variable (those who say they have money for saving and saving for old age). The independent variables of the model are "the value of household assets other than household residence", the value of financial assets excluding private pension", the age of the household reference person, the gender of the household reference person, the education of the household reference person, annual household income. The dependent variable coded in the model: "save for old age" – 1, "do not save for old age" – 0. The classification table, which indicates the effectiveness of the guess, shows that the blind guess that households are saving for old age would give 51.3 per cent of correct guesses.

The model is appropriate because the logistic analysis model identified 65.4 per cent of old-age savers and 53.1 per cent of non-savers. The total number of correctly classified cases is 59.4 per cent, i.e., more than 51.3 per cent.

The probability ratio statistics ($\chi^2 = 37769.608$) and value p show that

Table 13. Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)	95% C. I. for EXP(B)	
								Lower	Upper
Step 1 ^a	HH Ref Per Gender	.539	.005	11975.570	1	.000	1.715	1.698	1.731
	HH Assets (1)	-.402	.005	5791.168	1	.000	.669	.662	.676
	HH Ref Per Education	.151	.002	3773.296	1	.000	1.163	1.158	1.169
	HH Income (1)	.079	.005	253.880	1	.000	.924	.915	.933
	HH Ref Per Age	.284	.005	3572.022	1	.000	1.328	1.316	1.341
	HH Financial assets	1.023	.013	6632.834	1	.000	2.782	2.714	2.851
	Constant	-1.695	.017	9868.968	1	.000	.184		

a. Variable(s) entered on step 1: HH Ref Per Gender, HH Assets, HH Ref Per Education, HH Incomes, HH Ref Per Age; HH Financial assets.

the model describes the data well because $p < 0.05$. Pseudo-coefficients of determination < 0.2 , but with the binary logistic analysis in use, they perform only an auxiliary function, and other indicators are analysed for the model's suitability. The Hosmer and Lemeshow test is not analysed because the sample is large enough (Čekanavičius, Murauskas, 2014). The predicted probability graph also shows that the logistic regression model fits well. Exceptions were checked with Cook's measure. The data have no exceptions. Cook < 1 , DFBETA for all variables < 1 . The Table of Independent Variable Estimates shows that all the variables are statistically significant. Voldo criterion $p < 0.05$.

The Household Asset B ratio is negative. Therefore, it is concluded that as the number of households with more assets increases the number of people who do not save for old age increases $P(Y = 0)$. However, other B coefficients are positive, revealing that as the value of the variable increases, the number of households saving for old age is more likely to increase.

As the number of households with higher income grows, it is likely that the number of people saving for old age will increase ($Y = 1$). The higher the level of education, the more likely it is that more households will save for old age. The coefficient Exp (B) shows that a decrease in income reduces the probability ratio by 0.915 times, making the household less likely to save for old age. The increase in age increases the probability ratio by 1.316 times that the household is more likely to save for old age. An increase in household financial assets increases the probability ratio by 2.782 times, making it more likely that a household will save

for old age. The binary logistic regression model fits the data well.

The model reveals that as the household reference person gets older, acquires higher education and household income and value of financial assets increase, it is likely that the household will save more for old age. Conversely, as the value of other real assets grows, households will likely save less for old age.

The research statements were confirmed by regression analyses.

Results of multivariate linear regression analysis

Results of OLS presented in Table 14. A linear regression model (OLS) was verified. The regression analysis model's correlation coefficients again show that the dependent variable is statistically significantly correlated with the independent variables. The correlations are weak or moderate; some are negative; the correlations between the independent variables are also not strong, so there is no multicollinearity problem (SWF < 4 of all variables).

There are independent variables in the model that are related to the dependent variable (ANOVA $t < 0.05$); it is therefore safe to say that there is at least one variable in the model that depends on the dependent variable.

There are no exceptions in the data (DFBeta and Cook coefficient < 1 for all variables); there are no independent variables that should be removed from the model (t (Student) p values for all variables < 0.05). The data are distributed normally; there is no heteroskedasticity. The coefficient of determination $R^2 = 0.250$ ($R^2 > 0.2$) indicates that the model is suitable for the data. However, by a low

Table 14. Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
Step 1	(Constant)	7284.131	300.738		24.221	.000		
	HH Other Assets	-.021	.000	-.253	-81.271	.000	.795	1.258
	HH Ref Per Age	-161.419	3.220	-.147	-50.125	.000	.895	1.117
	HH Ref Per Education	2868.431	43.973	.202	65.231	.000	.800	1.250
	HH Ref Per Gender	1029.485	86.003	.036	11.970	.000	.847	1.181
	HH Income	.194	.002	.325	108.858	.000	.864	1.158
	HH Financial assets	-.150	.007	-.065	-21.743	.000	.860	1.162

a. Dependent Variable: Voluntary pension/whole life insurance

percentage, the dependent variable (Y) is explained by the independent variables (X, Z, W_i). All the independent variables are statistically significant ($p < 0.05$ of all t values). Considering the Standardized B coefficient, the most influential independent variable of the model is income. The least influential is gender. Based on beta coefficients, only the statement – “the value of voluntary pension/life insurance increases as the value of household financial assets increases” cannot be confirmed. Its standardised beta coefficient in the model is negative and relatively small, although statistically significant. Other statements can be validated, and the regression equation can be used for forecasts.

Conclusions. Discussion and limitations

It can be stated, summarising the results of the research:

1. Only one-third of households are financially able to save (their expenses are lower than their income).
2. The total household annual gross income in Lithuania is four times lower than the annual gross income of the euro area countries. However, the households whose reference person is a male with higher education is self-employed and aged 25–54 receive a higher income than those with other demographic parameters.
3. Financial saving instruments are used by a small part of households in Lithuania.
4. Lithuanian households invest in the acquisition of household's main residence, which protects from additional rental costs in old age. The loan instalment reduces consumption today but increases consumption in the future. This is also possible due to a weak rental market and traditional attitudes.
5. The share of financial assets is very small in total household assets. The total value of household assets is almost three times lower than in the euro area.
6. The study reveals that less than one-tenth of the Lithuanian population

had a voluntary pension or life insurance plans in 2017. Thus, most of the population, knowing they would receive a pension from the SODRA (State Social Insurance) in old age, do not choose other alternatives. On the one hand, it can be assumed that most people in Lithuania trust the SODRA as capable of ensuring pension benefits in old age. On the other hand, this may confirm the findings of behavioural economists that people do not think about saving for old age, and most do not try to estimate whether the money paid by the state pension system will be sufficient. Therefore, Lithuania's state should ensure the SODRA's ability to pay a sufficient pension or find ways to nudge households to save privately for old age.

The research models confirmed the verified statements. Therefore, when assessing the saving behaviour of households, we can say that:

1. The most important independent variables influencing the value of voluntary pensions/life insurance are household income, age and education of the household reference person.
2. As the number of households with higher income increases, it is likely that the share of households saving for old age will increase and the value of voluntary pensions/life insurance will increase.
3. The higher the education of the household reference person, the more likely it is that the number of households saving for old age will increase and the value of voluntary pension/life insurance will increase.
4. The higher the value of household financial assets, the more households

save for old age. In this case, the statement that the value of a voluntary pension will be higher has not been confirmed.

5. As the value of other real assets increases, so does the value of voluntary pension/life insurance and the likelihood that a household will save for old age decreases. In addition, it confirms the "crowding-out" phenomenon in saving behaviour (accumulation in the private pension funds decreases the value of household other assets) (Engelhardt, Kumar, 2011).
6. The binary logistic regression model confirms that as the household reference person gets older, acquires higher education, household income and value of financial assets increase, the household is more likely to save for old age.

Discussion and limitation

The survey data reveal that Lithuanian households do not have a rational retirement saving behaviour. Most Lithuanians rely on the existing state pension system, do not save for old age, and do not have voluntary pensions or life insurance plans.

Therefore, to encourage Lithuanian households to save for old age and to get private pension funds, the state needs to "nudge" households to save, especially those with lower income and education. It is also essential to raise the Lithuanian population's financial literacy and educate people on how to manage their finances effectively and what saving tools should be chosen.

Those households with higher-value real estate are also reluctant to save for old age or opt for private pension funds.

It is likely because investing in real estate is considered security in old age. Whether they need to be encouraged to save for old age is a matter of discussion. Households with higher income should not be the focus of attention, except for the cases when the financial literacy of all types of households is promoted.

People in Lithuania tend not to take financial risks; therefore, the measures to promote savings should be safe.

The survey data are from 2016 to 2017, so they do not reflect the current saving behaviour of Lithuanian households. They only reveal that during the survey, most Lithuanian households did not have an opportunity to save, did not choose private pension funds, and did not invest in other saving instruments. Lithuanian households confirmed the conclusions of behavioural economists rather than the assumptions of the traditional life-cycle theory.

The pension reform was implemented in Lithuania in 2019. It is an example of the idea of libertarian paternalism put into practice: the state “nudged” the

population to choose private pension funds and contributed to the accumulation. All employed Lithuanians under 40 were automatically enrolled in the II pillar pension funds with age-specific investment risk. The state offered an incentive to those who contributed to their pension funds by 3 per cent of their gross salary. In this case, the state support for those who accumulate for retirement was 1.5 per cent of the national average salary. If a person chose to accumulate at a lower rate, the state support was 0.3 per cent in 2019. It will grow along with the pension contribution to 3 per cent by 2023. Automatic enrolment with a “default” term and the possibility to opt-out of private pension funds is consistent with the solutions proposed by behavioural economists.

Therefore, further research should focus on the data of the next wave of the HFCS, which would show the changes after the pension reform implemented in Lithuania in 2019 and allow us to assess the impact of measures supported by behavioural economists on saving for retirement behaviour.

References

1. Asebedo, S. D., Wilmarth, M. J., Seay, M. C., Archuleta, K., Brase, G. L., Macdonald, M. (2019). Personality and Saving Behavior Among Older Adults // *The Journal of Consumer Affairs*. Vol. 53, No. 2, pp. 488–519. doi: <http://dx.doi.org/10.1111/joca.12199>
2. Barr, N. (2002). Reforming Pensions: Myths, Truths, and Policy Choices // *International Social Security Review*. Vol. 55, No. 2, pp. 3–36. doi: 10.1111/1468-246X.00122
3. Barr, N. (2004). *The Economics of the Welfare State*. – Fourth edition: Oxford University Press.
4. Barr, N., Diamond, P. (2006). The Economics of Pensions // *Oxford Review of Economics Policy*. Vol. 22, No. 1, pp. 15–39. doi: <http://dx.doi.org/10.1093/oxrep/grj002>
5. Barr, N. (2010). Adequate and Sustainable Pensions: What Reform Directions? – Paper presented at the Consultation Conference on the Green Paper on Pensions. Brussels, 29 October 2010. Internet access: <http://econ.lse.ac.uk/staff/nb>
6. Benartzi, S., Thaler, R. H. (2007). Heuristics and Biases in Retirement Savings Behaviour // *Journal of Economic Perspectives*. Vol. 21, No. 3, Summer 2007, pp. 81–104. doi: 10.1257/jep.21.3.81
7. Belke, A., Dreger Ch., Ochmann, R. (2015). Do Wealthier Households Save More? The Impact of the Demographic Factor // *International Economic Policy*. Vol. 12, pp. 163–173. doi: 10.1007/s10368-014-0275-x

8. Bielskis, K., Ciginas, A. (2020). Household Wealth and Finance. Results for Households in Lithuania for 2017. Internet access: https://www.lb.lt/uploads/publications/docs/25627_2f5cb5ff411be4fe345514ea4982dbe4.pdf
9. Blau, D. M. (2016). Pensions, Household Saving, and Welfare: A Dynamic Analysis of Crowd Out // *Quantitative Economics*. Vol. 7, pp. 193–224. doi: 1759-7331/20160193
10. Börsch-Supan, A. (1995). The Impact of Population Aging on Savings, Investment and Growth in the OECD Area. Paper presented at Germany OECD Conference on “Future Global Capital Shortages: Fact or Fiction”, Paris, April 1995. Internet access: <https://ub-madoc.bib.uni-mannheim.de/1062>
11. Börsch-Supan, A., Reil-Held, A., Schunk, D. (2007). The Savings Behaviour of German Households: First Experiences with State Promoted Private Pensions. – Working paper, Mannheim Research Institute for the Economics of Aging (MEA), Mannheim University. Internet access: <https://ub-madoc.bib.uni-mannheim.de/1549>
12. Campbell, D., Weinberg, J. A. (2015). Are We Saving Enough? Households and Retirement // *Economic Quarter*. Vol. 101, No 2, Second Quarter, pp. 99–123. SSRN Internet access: <https://ssrn.com/abstract=2756947>. doi: <http://dx.doi.org/10.21144/eq1010202>
13. Čekanavičius V., Murauskas G. (2014). Taikomoji regresinė analizė socialiniuose tyrimuose. Vilnius Universiteto leidykla.
14. Chard R. E., Rogofsky, D., Yoong, J. (2017). Wealthy or Wise: How Knowledge Influences Retirement Savings Behavior? // *Journal of Behavioral and Social Sciences*. Vol. 4, pp. 164–180.
15. Chatterjee, S., Fan, L., Jacobs, B., Haas, R. (2017). Risk Tolerance and Goals-based Savings Behaviour of Households: The Role of Financial Literacy // *Journal of Personal Finance*, Forthcoming: University of Georgia. SSRN Internet access: <https://ssrn.com/abstract=2918014>
16. Chetty, R., Friedman, N. J., Leth-Petersen, S., Nielsen, T. (2012). Active vs Passive Decisions and Crowd-Out in Retirement Savings Accounts: Evidence in Denmark. *Quarterly Journal of Finance*. Vol. 129, No 3, pp. 1141–219. Internet access: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2652658
17. Clark, R. L., Hammond, R. G., Morrill, M. S., Khalaf, H. (2019). Informing Retirement Savings Decisions: A Field Experiment on Supplemental Plans // *Economic Inquiry*. Vol. 57, No. 1, pp. 188–205. doi: 10.1111/ecin.1273
18. Croy, G., Gerrans, P., Craig P. Spielman, C. P. (2015). A Mediating Role for Anticipated Regret in Predicting Retirement Savings Intention Between Groups with (without) Past Behaviour // *Australian Journal of Psychology*. Vol. 67, pp. 87–96. doi: 10.1111/ajpy.12070
19. Deaton, A. (2005). Franco Modigliani and the Life Cycle Theory of Consumption. Research Program in Development Studies and Centre for Health and Wellbeing: Princeton University. Presented at the Convegno Internazionale Franco Modigliani, Accademia Nazionale dei Lincei, Rome, February 17th–18th. SSRN Internet access: <https://ssrn.com/abstract=686475>. doi: <http://dx.doi.org/10.2139/ssrn.686475>
20. Engelhardt, G. V., Kumar, A. (2011). Pensions and Household Wealth Accumulation // *Journal of Human Resources*. Vol. 46, No. 1, pp. 203–236. doi: 10.3368/jhr.46.1.203
21. Fisher, P. J., Anong, S. T. (2012). Relationship of Saving Motives to Saving Habits // *Journal of Financial Counseling and Planning*. Vol. 23, No. 1. Internet access: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2222006
22. Halilbegovic, S., Mehanovic, E. (2018). Effect of Person's Age on Supplemental Investment Habits Towards Retirement in Federation of Bosnia and Herzegovina // *European Journal of Economic Studies*. Vol. 7. No. 1, pp. 16–21. doi: <http://dx.doi.org/10.13187/es.2018.7.16>
23. Holden, S., Schrass, D. (2022). The Role of IRAs in US Households' Saving for Retirement, 2021 // *ICI Research Perspective*. Vol. 28, No. 1. Available at SSRN: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4009173
24. Household Wealth. 2021 (2021). Central Bank of Lithuania. Internet access: <https://www.lb.lt/en/households>
25. Household finance and consumption Network (HFCS). Internet access: https://www.ecb.europa.eu/pub/economic-research/research-networks/html/researcher_hfcn.en.html
26. Ipek, E., Sekmen, Ö. (2016). Household Savings in Turkey: Evidence from Microdata // *Balkan and Near Eastern Journal of Social Sciences*. Vol. 2, No. 4, pp. 102–108. Internet access: https://www.ibaness.org/bnejss/2016_02_04/011_ipek_sekmen_new.pdf

27. Jones, A., Geilenkeuser, T., Helbrecht, I., Quilgars, D. (2011). Demographic Change and Retirement Planning: Comparing Households' Views on the Role of Housing Equity in Germany and the UK // *International Journal of Housing Policy*. doi: <https://doi.org/10.1080/14616718.2012.651299>
28. Jurgens, H. (2001). Do Germans Save to Leave an Estate? An Examination of the Bequest Motive // *Scandinavian Journal of Economics*. Vol. 103, No. 3, pp. 391–414. doi: <https://doi.org/10.1111/1467-9442.00252>
29. Kahneman, D., Tversky, A. (1974). Judgment under Uncertainty: Heuristics and Biases // *Science*. Vol. 185, No. 4157, pp. 1124–1131. doi: [10.1126/science.185.4157.1124](https://doi.org/10.1126/science.185.4157.1124)
30. Kahneman, D. (2011). *Thinking Fast and Slow*. Penguin Books, London.
31. Lazutka, R. (2006). Country Report. Pension Reform in Lithuania. Pension Reform in the Baltic States. Part I, Budapest, International Labour Office, pp. 267–350. Internet access: <https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.468.7095&rep=rep1&type=pdf#page=269>
32. Lithuanian population. Lithuanian Department of Statistics (2020). Internet access: <https://osp.stat.gov.lt/lietuvos-gyventojai-2020/salies-gyventojai-gyventoju-skaicius-ir-sudetis>
33. Lusardi, A. (2001). Explaining Why So Many Households Do Not Save. – Working Paper, No. 2001-05, Center for Retirement Research at Boston College, Massachusetts. SSRN. Internet access: <https://ssrn.com/abstract=285978>. doi: <http://dx.doi.org/10.2139/ssrn.285978>
34. Lusardi, A. M. (2008). Household Saving Behavior: The Role of Financial Literacy, Information, and Financial Education Programs. – Working Paper. No. 13824. National Bureau of Economic Research: 1050 Massachusetts Avenue Cambridge. Internet access: https://www.nber.org/system/files/working_papers/w13824/w13824.pdf
35. Modigliani, F. (1986). Life Cycle, Individual Thrift, and the Wealth of Nations // *Science*. Vol. 234, No. 4777, pp. 704–712.
36. Replacement rates. OECD database. (2021). Internet access: <https://data.oecd.org/pension/net-pension-replacement-rates.htm>
37. Pensions at a Glance 2021 (2021). Internet access: <https://www.oecd.org/publications/oecd-pensions-at-a-glance-19991363.htm>
38. Pieńkowska-Kamieniecka, S., Walczak, D. (2016). Willingness of Polish Households to Save for Retirement. – Conference papers, presented at the 13th International Scientific Conference European Financial System 2016, June 27–29, pp. 588–595. Brno, Czech Republic. Internet access: <https://www.cceol.com/search/chapter-detail?id=839857>
39. Rey-Ares, L., Fernandez-Lopez, S., Vivel-Bua, M. (2018). The Influence of Social Models on Retirement Savings: Evidence for European Countries // *Social Indicators Research*. Vol. 136, pp. 247–268. doi: <https://doi.org/10.1007/s11205-016-1533-9>
40. Shefrin, H. M., Thaler, R. H. (1988). The Behavioral Life-Cycle Hypothesis // *Economic Inquiry*. Vol. 26, No. 4, pp. 609–643. doi: <https://doi.org/10.1111/j.1465-7295.1988.tb01520.x>
41. Skinner, J. (2007). Are You Sure You're Saving Enough for Retirement? // *Journal of Economic Perspectives*. Vol. 21, No. 3, pp. 59–80. doi: [10.1257/jep.21.3.59](https://doi.org/10.1257/jep.21.3.59)
42. Stankūnienė, V. (2017). Lietuvos gyventojų senėjimo ilgalaikė trajektorija: fundamentalieji ir specifiniai veiksniai. Lietuvos statistikos darbai. Vol. 56, No. 1, pp. 5–17. Internet access: <https://etalpykla.lituanistikadb.lt/object/LT-LDB-0001:J.04~2017~1571064337548/>
43. State Social Insurance (SODRA) (2019). Internet access: <https://www.sodra.lt/lt/naujienos/baigiasi-menuokiek-gyventoju-mokes-imokas-i-pensiju-kaupimo-fondus-nuo-sausio>
44. Strömbäck, C., Lind, Th., Skagerlund, K., Västfjäll, D., Tinghög, G. (2017). Does Self-Control Predict Financial Behavior and Financial Well-Being? // *Journal of Behavioral and Experimental Finance*. Vol. 14, pp. 30–38. doi: <https://doi.org/10.1016/j.jbef.2017.04.002>
45. Thaler, R. H., Benartzi, S. (2004). *Save More Tomorrow: Using Behavioural Economics to Increase Employee Savings*. University of California, University of Los Angeles, The University of Chicago Press Journals. doi: <https://doi.org/10.1086/380085>
46. Thaler, R. H., Sunstein, C. R. (2009). *Nudge: Improving Decisions about Health, Wealth and Happiness*. – London: Penguin Books.
47. Thaler, R. H. (2016). *Misbehaving*. – London: Penguin Books.
48. Topoleski, J. J. (2013). U. S. Household Savings for Retirement in 2010. Internet access:

- <https://digital.library.unt.edu/ark:/67531/metadc463264/>
49. Torricelli, C., Urzi, M. C., Santantonio, M. (2016). Does Homeownership Partly Explain Low Participation in Supplementary Pension Schemes? // *Economic Notes*. Vol. 45, No. 2, pp. 179–203. doi: 10.1111/ecno.12054. Internet access: <https://onlinelibrary.wiley.com/doi/epdf/10.1111/ecno.12054>
50. Wong, R. S., Osman, M., Wong, W. H. (2019). Saving for a Better Retirement: How Risk Attitudes Affect Choice of Retirement Scheme // *Psychological Reports*. Vol. 122, No. 1, pp. 305–322. doi: <https://doi.org/10.1177/0033294118755093>

The paper submitted: May 15, 2022

Prepared for publication: December 20, 2022

Inga BLAŽIENĖ

LIETUVOS NAMŲ ŪKIŲ TURTO IR KITŲ VEIKSNIŲ ĮTAKA ELGSENAI TAUPANT PENSIJAI SENĖJANČIOJE VISUOMENĖJE

S a n t r a u k a

Straipsnyje analizuojama Lietuvos namų ūkių turimo turto, pajamų bei demografinių parametru daroma įtaka elgsenai taupant pensijai. Analizuojami namų ūkių finansų ir vartojimo tyrimo¹² duomenys.

Taupymo ir vartojimo elgsenai įtaką daro demografiniai pokyčiai visuomenėse. Statistika atskleidžia visuomenių senėjimo procesą. Visuomenė senstant, didėja pensinio amžiaus sulaukusių žmonių dalis, todėl dirbantiems tenka vis didesnė našta išlaikyti pensinio amžiaus gyventojų dalį. Ieškoma sprendimų, leidžiančių užtikrinti gyventojams pakankamą pinigų sumą senatvėje. Atsakymų ieškoma tiriant gyventojų finansinę elgseną, jų nuostatas bei namų ūkių taupymo galimybes.

Pagrindinis straipsnio tikslas – tirti Lietuvos namų ūkių turto, pajamų, lyties, amžiaus ir išsilavinimo įtaką elgsenai taupant pensijai. Tyrimo objektas – Lietuvos namų ūkių elgsena taupant pensijai. Tyrimo uždaviniai: vertinti, kokią įtaką finansinis turtas turi tikėtinumui, kad namų ūkis taupys senatvei bei pasirinks savanorišką pensiją arba gyvybės draudimą kaip taupymo pensijai priemonę; analizuoti, kokią įtaką socialinės-demografinės charakteristikos turi tikėtinumui, kad namų ūkis taupys senatvei bei pasirinks savanorišką pensiją arba gyvybės draudimą kaip taupymo pensijai priemonę.

Turimas namų ūkių turtas yra vienas iš saugiklių, galinčių užtikrinti pragyvenimą senatvėje. Nefinansinis ir finansinis turtas gali būti vienu iš taupymo instrumentų arba veiksnų, darančių įtaką taupymo elgsenai, todėl straipsnyje pateikiama, kiek ir kokio turto yra sukaupę Lietuvos namų ūkiai, kokias gauna pajamas bei kaip tai lemia taupymo elgseną.

Pirmame straipsnio skyriuje apžvelgiami du teoriniai požiūriai: tradicinis gyvenimo ciklo modelis bei elgsenos ekonomikos teorija. Antrame skyriuje aprašoma tyrimo metodologija. Toliau straipsnyje pateikiama empirinė analizė, padalinta į dvi dalis.

Pirmoje empirinėje dalyje pateikiami namų ūkių turimo turto, gaunamų pajamų, namų ūkių taupymo pensijai duomenys bei jų pasiskirstymas pagal socialinius demografinius parametrus. Nustatyta, kad tik trečdalis Lietuvos namų ūkių yra finansiškai pajėgūs taupyti, dauguma namų ūkių investuoja į pagrindinio gyvenamojo būsto įsigijimą, mažai jų turi finansinio turto.

Antroje empirinėje dalyje pateikiama koreliacinė ir regresinė duomenų analizė. Tikrinti tyrimo teiginiai: kuo aukštesnis namų ūkio „galvos“ išsilavinimas, tuo didesnė savanoriškos pensijos / gyvybės draudimo vertė bei tikimybė, kad namų ūkis taupys senatvei; augant namų ūkio pajamoms, kyla savanoriškos pensijos vertė bei tikimybė, kad namų ūkis taupys senatvei; didėjant namų ūkio nekilnojamojo turto vertei, mažėja savanoriškos pensijos / gyvybės draudimo vertė bei tikimybė,

¹² Household Finance and Consumption Network (HFCN) (europa.eu)

kad namų ūkis taupys senatvei; didėjant namų ūkio finansinio turto vertei, didėja savanoriškos pensijos / gyvybės draudimo vertė bei tikimybė, kad namų ūkis taupys senatvei. Visi teiginiai, išskyrus „didėjant namų ūkio finansinio turto vertei, didėja savanoriškos pensijos / gyvybės draudimo vertė“, patvirtinti.

Tyrimo duomenys atskleidžia, kad Lietuvos namų ūkiai nepasižymi racionalia taupymo pensijai elgsena. Dauguma pasikliauna esama

valstybine pensijos sistema bei mažai taupo senatvei savanoriškai. Norint paskatinti Lietuvos namų ūkius taupyti senatvei, patiems kaupti privačiuose pensijų fonduose, valstybei reikia ieškoti efektyvių taupymo skatinimo priemonių. Ypatingai svarbu padėti mažesnes pajamas, žemesnį išsilavinimą turintiems namų ūkiams. Reikia įvertinti, kad Lietuvoje žmonės nėra linkę į finansinę riziką, todėl taupymo skatinimo priemonės turėtų būti saugios.