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RETIREMENT ATTITUDES IN POLAND AND SOUTHEAST EUROPE

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Abstract

The paper aims to present the retirement attitudes of individuals in Poland and Southeastern European countries. In our study, we have shown that many factors influence retirement decisions. These decisions are influenced by the state-guaranteed pension level and the individual's perception of this security, and individual retirement savings. Socio-demographic characteristics such as age and gender also play a crucial role in shaping these decisions. Firstly, our study shows that age has a statistically significant effect on stated attitudes towards the state pension. For each additional year of life, the odds of respondents stating that they will cover their expenses in old age by drawing a state pension increase by 4,4% (Poland) and 1% (Southeastern Europe). Secondly, respondents identified the state as the primary source of retirement security. This trend is observed in both Poland and other European countries. The data used in the article comes from national surveys conducted using the updated 2018 OECD/INFE Toolkit for measuring financial literacy and financial inclusion. The analyses in this article cover Poland and seven Southeastern European countries that participated in the OECD/INFE survey (Bulgaria, Croatia, Georgia, North Macedonia, Moldova, Montenegro, and Romania).

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Introduction

Research demonstrates that various socioeconomic factors influence diversity in financial decision-making, including retirement saving (Walczak & Pieńkowska-Kamieniecka, 2018). One of the crucial variables in this regard is gender. There are various reasons for such behavior, potentially including the fact that women know less about investing and invest more conservatively and less aggressively than men (Alcon, 1999). Moreover, irrespective of age, women have less financial knowledge than men (Mitchell & Lusardi, 2022). The other factor is age (Rutecka-Góra & Pieńkowska-Kamieniecka, 2023).

The article focuses on retirement attitudes in Poland and compares it with seven other Southeastern European countries (Bulgaria, Croatia, Georgia, North Macedonia, Moldova, Montenegro, and Romania).

Poland, the largest of the analyzed countries, reformed its old-age security system in 1999 and introduced a fully defined contribution (DC) system, making benefits depend solely on the pension capital accumulated and the projected longevity. As a result, the pension contributions are allocated to individual accounts in non-financial and (optionally) funded elements of the fully defined contribution (DC) system and create pension capital that will be used to finance future old-age benefits. Moreover, the majority of Polish citizens can save for retirement in five institutionalized forms of old-age security: 1) individual retirement accounts (pol. Indywidualne Konta Emerytalne, IKE), 2) individual retirement security accounts (pol. Indywidualne Konta Zabezpieczenia Emerytalnego, IKZE), 3) employee pension programmes (pol. Pracownicze Program Emerytalne, PPE), 4) employee capital plans (pol. Pracownicze Plany Kapitałowe, PPK), and 5) Pan-European personal pension products (pol. Ogólnoeuropejskie Indywidualne Produkty Emerytalne, OIPE). The other countries have also reformed their old-age security and have multi-pillar pension systems.

The paper aims to assess the impact of gender, age, and other selected socio-demographic variables on making retirement decisions (decisions relating to the timing of retirement, continuing to work after reaching retirement age, saving for old age and expectations regarding future pension benefits). The study verifies the following research hypotheses:

1. Age and gender have a significant impact on retirement decisions.
2. The state is seen as a main guarantor of pension security both in Poland and in the analyzed Southeastern European countries.
3. The attitudes towards future retirement security vary between Poland and Southeastern European countries.

The article is organized as follows. The next section focuses on the literature background regarding financial literacy, retirement savings, and retirement behaviors. Then we present the methodology of our study and the results of the models that are later discussed and concluded in the final section.

Background

Studies show that older people save more for retirement than younger people. This is attributed to shifts in Generation X and Z behavior, including high consumption levels (Fujiwara & Teranishi, 2008; Xie et al., 2023; Nkoutchou & Eiselen, 2012). Older people are also more willing to redistribute and expect others to be more willing to help them in their old age (Nakavachara, 2018; Pieńkowska-Kamieniecka et al., 2019). However, not all studies point to age and gender as factors associated with financial and retirement behavior. Tan and Singaravelloo (2020) suggested that neither of these factors impacts financial knowledge, which, in turn, affects recommended retirement planning. Kwiecień et al. (2020) argue that several significant demographic changes, particularly concerning life expectancy, which has increased in most developed European countries, impact the perception of retirement security (Jedynak, 2022; Szczepański, 2017). It is not only demographic changes that should trigger significant changes in pension policy, but also the introduction of new technologies, global economic situation (Markowski, 2024a) and changes in the socio-economic environment that should lead to a different perception of the above-mentioned retirement security (Ganapathy, 2021; Pauch & Bera, 2022).

Differences in financial knowledge may play an important role in investing (Goldsmith, 2006), taking into account the indexes of capital markets (Markowski, 2024b), influencing the value of savings and their nature (Mata, 2021). Moreover, individuals' conduct in the financial market is influenced and conditioned by various factors, including employment status, place of residence, income, and household size (Walczak & Pieńkowska-Kamieniecka, 2018).

Retirement planning means setting goals, making realistic retirement expectations, preparing to maintain a living standard, and adjusting to retirement (Taylor & Doverspike, 2003). That can be achieved by working longer or accumulating additional capital. However, long-term saving has no long history in countries in Eastern and Central Europe (including Poland) due to the experience of nationalization and hyperinflation (Buchholtz et al., 2021; Buchholtz et al., 2023). In general, more frequent supplementary saving for retirement is observed in older people, men, and the more affluent (Rey-Ares et al., 2015). Unfortunately, public savings (and state pensions) crowd out private, voluntary pension savings. Alessie et al. (2013) observed that the increase in pension wealth leads to a decline in non

pension wealth. However, Myck and Lachowska (2018) found that pension wealth has a positive impact on household savings in Poland, especially among the well-educated individuals. In the group of post-communist countries, only Poland has a fully defined contribution (DC) pension system, which encourages working longer, after the statutory (minimum) retirement age (Buchholtz et al., 2023). Other analyzed countries, although having reformed their old-age security, have a mix of benefit formulas in their pension systems.

Trust in financial institutions or the state is an equally important factor in financial activity, including saving for old age (Ghosh, 2021; Koh et al., 2021). However, placing excessive trust in the state as a guarantor of pensions in old age may also discourage individuals from being prudent (Kośny et al., 2024). In turn, limited trust in the state may lead to individuals saving more for their retirement (Xie et al., 2023).

Methodology

The data used in the article comes from national surveys conducted using the updated 2018 OECD/INFE Toolkit for measuring financial literacy and financial inclusion. Twenty-six countries and economies across three continents (Asia, Europe, and Latin America) participated in the survey to collect comparable data. The OECD/INFE suggested collecting data from at least 1,000 respondents in each country. In total, 125,787 adults were interviewed using the same core questions. The analyses in this article cover Poland and seven Southeastern European countries, i.e., Bulgaria, Croatia, Georgia, North Macedonia, Moldova, Montenegro, and Romania. Respondents were aged 18 and over. A questionnaire was designed to capture information about financial behaviour, attitudes, and knowledge.

To achieve the objectives of the research, the method of logistic regression was used, this model enables the examination of the relationship between explanatory (independent) variables and a dichotomous dependent variable. So, the dependent variables in each model were dichotomous, i.e., dummy variables. They took the form: Y = 1, if the event occurred, Y = 0 if the event did not occur.

The following dependent variables were adopted in the construction of each logistic regression model (M): Y1 – draw a government pension (M1), Y2 – draw on savings (M2), Y3 – continue to work (M3). The underlying question for the above statements was: How will you - or do you - fund your retirement? Each of the three models was constructed separately for Poland and for the group of countries in Southeastern Europe. The control variables included in the original form of the questions are shown in Table 1, where the reference group is marked as '0', and the following also indicates how the following variants of the variable were coded by the authors.

Table 1: Descriptive statistics of the control variables

Variable	Variant of variable
Gender	0 - a female 1 - a male
Could you tell me which of these best describes the community you currently live in, please? (hereinafter referred to as: place of residence)	0 - a village, hamlet or rural area (fewer than 3 000 people) 1 - a small town (3 000 to about 15 000 people) 2 - a town (15 000 to about 100 000 people) 3 - a city (100 000 to about 1 000 000 people) 4 - a large city (with over 1 000 000 people)
Could you tell me which of these categories your household income usually falls into [Use as appropriate: before/after tax]? (hereinafter referred to as: income band)	0 - up to $X a month 1- between $X and $Y a month 2- $Y or more a month
What is the highest level of education that you have completed? (hereinafter referred to as: education)	0 - university-level education 1 - upper secondary school or high school 2 - lower secondary school 3 - primary school or no formal education
Which of these best describes your current work situation? Please refer to your main working status (hereinafter referred to as: work situation)	0 - self-employed 1 - in paid employment 2 - not working 3 - student, pupil, apprentice 4 - retired
If you lost your main source of income, how long could you continue to cover your living expenses, without borrowing any money or moving house? (hereinafter referred to as: lost income)	0 - at least three months 1 - don’t know 2 - less than one month 3 - at least one month, but not three months

Variable	Variant of variable
In the past 12 months have you been personally saving cash at home or in your wallet? (hereinafter referred to as: cash at home or in a wallet)	0 - no 1 - yes
In the past 12 months have you been personally paying money into a savings/deposit account? (hereinafter referred to as: money into a savings/deposit account)	0 - no 1 - yes
How would you rate your overall knowledge about financial matters compared with other adults in <country name>? (hereinafter referred to as: self-rated knowledge)	0 – low 1 – high 2 - average
How much do you agree or disagree with: I am satisfied with my present financial situation (hereinafter referred to as: satisfaction with present financial situation)	Continuous variable: 1 -(completely agree) 2, 3, 4, 5 – (completely disagree)*
How well does this statement describe you or your situation? I trust financial service providers to treat me fairly (hereinafter referred to as: trust in financial service providers)	Continuous variable: 1 – (completely) 2 – (very well) 3 – (somewhat) 4 – (very little) 5 – (not at all)
Age	Continuous variable

* In the original database, apart from the values 1 and 5, the values 2, 3, and 4 were not specified in words

Source: Author's own work based on OECD data.

The selection of variables for each logistic regression model was made using Wald's backward elimination method. The validity of each of the final models was tested using the Hosmer-Lemeshow test. The chi-square value of individual tests was not statistically significant, which means that these models fit the data well. However, Model 2 for the Southeastern European countries had to be previously revised due to a p-value below 0.05. The predictor 'I trust financial service providers to treat me fairly' was removed. This independent variable was the first to be identified (in the next step, it was gender) as a variable not included in the model. By removing the variable concerning trust in financial service providers from the model, the p-value of the Hosmer-Lemeshow test was greater than 0.05. It can therefore be concluded that the model fits the data well, as there is no significant difference between the model and the observed data. The total number of Poles who participated in the survey was 1,000. The sample size for Southeastern European countries was 7,422 individual adults. The structure of the sample by country is shown in Table 2.

Table 2: Structure of responses for respondents' stated sources of funding for their future retirement

Country	N	In %
Bulgaria	1,047	14.1
Croatia	1,079	14.5
Georgia	1,056	14.2
The Republic of North Macedonia	1,076	14.5
Moldova	1,074	14.5
Montenegro	1,030	13.9
Romania	1,060	14.3
Total	7,422	100.0

Source: Author's own work based on OECD data.

The characteristics of the survey sample for Poland and the countries of Southeastern Europe in general, in terms of the control variables used in the logistic regression, are presented below.

Table 3: Descriptive statistics of potential independent variables for Poland and Southeastern European countries used to build the models

Variable	Variant of variable/label of codes	Poland		Southeastern European countries	
		N	%	N	%
Qualitative variables					
Gender	Woman	514	51.4	4,109	55.4
	Man	486	48.6	3,313	44.6
Place of residence	A village, hamlet or rural area (fewer than 3,000 people)	364	36.6	2,795	37.7
	A small town (3,000 to about 15,000 people)	143	14.4	671	9.0
	A town (15 000 to about 100 000 people)	210	21.2	1,504	20.3
	A city (100 000 to about 1 000 000 people)	223	22.4	1,850	24.9
	A large city (with over 1 000 000 people)	54	5.4	602	8.1
Income band	Up to $X a month	198	23.8	2,324	37.7
	Between $X and $Y a month	329	39.6	1,583	25.7
	$Y or more a month	304	36.6	2,259	36.6
Education	University-level education	254	25.5	2,385	32.3
	Upper secondary school or high school	449	45.1	3,762	50.9
	Lower secondary school	235	23.6	735	9.9
	Primary school or no formal education	57	5.7	507	6.9
Work situation	Self-employed	624	63.1	929	12.7
	In paid employment	38	3.8	3,318	45.4
	Not working	49	5.0	1,134	15.5
	Student, pupil, apprentice	202	27.4	377	5.2
	Retired	76	7.7	1,548	21.2
Lost income	At least three months	320	32.8	1,459	20.0
	At least one month, but not three months	292	29.9	1,876	25.7
	Less than one month	231	23.7	3,032	41.6
	Don’t know	132	13.5	926	12.7
Savings account	No	657	66.1	4,470	74.9
	Yes	337	33.9	1,498	25.1
Cash at home or in a wallet	No	588	58.8	2,970	41.7
	Yes	412	41.2	4,159	58.3
Money into a savings/ deposit account	No	323	32.3	5,525	77.2
	Yes	677	67.7	1,628	22.8
Self-rated knowledge	Low	270	15.2	1,809	25.4
	Average	553	57.0	4,042	56.8
	High	147	27.8	1,268	17.8
Continuous variables					
Satisfaction with present financial situation	1 (completely agree)	158	16.1	1,010	13.9
	2	297	30.2	1,313	18.1
	3	287	29.2	1,936	26.6
	4	157	16.0	1,193	16.4
	5 (completely disagree)	85	8.6	1,817	25.0
Trust in financial service providers	1 (completely)	195	20.2	1,301	20.2
	2 (very well)	381	39.4	1,473	22.9
	3 (somewhat)	248	25.7	1,879	29.2
	4 (very little)	104	10.8	864	13.4
	5 (not at all)	38	3.9	910	14.2

Source: Author’s own work based on OECD data.

For the analysed countries, median monthly household income, before or after taxes, depending on which is prevalent in a given country, was used to indicate income bands. 'X' referred to 75% and 'Y' to 125% of the median household income. In the case of Poland, X meant average net monthly income (after tax) within the household at PLN 2,950 and Y at PLN 4,850. To allow clear comparisons, for Southeastern European countries, only the terms 'X' and 'Y' have been used to designate income ranges defined as above.

Age, as a continuous variable, was also included in the set of control variables established as a potential for the models built. An additional description of the continuous variables, also taking into account the age of the respondents, is presented in Table 4.

Table 4: Additional statistics for continuous variables

Specification	Poland			South East Europe countries		
	Mean	Median	SD	Mean	Median	SD
Age	47.75	45.0	16.340	46.37	46.0	16.159
Satisfaction with present financial situation	2.71	3.0	1.169	3.21	3.0	1.363
Trust in financial service providers	2.39	2.0	1.046	2.78	3.0	1.301

Source: Author's own work based on OECD data.

The data above shows that respondents from Poland and the Southeastern European countries have similar mean and median ages. However, when it comes to satisfaction with their current financial situation and trust that financial service providers treat them fairly, respondents from Southeastern European countries on average have higher levels of satisfaction and trust than Poles.

Results

The conducted analyses cover the responses to the three basic questions from the OECD/INFE survey:

1) How will you - or do you - fund your retirement: draw a government pension (M1);
2) How will you - or do you - fund your retirement: draw on savings (M2);
3) How will you - or do you - fund your retirement: continue to work (M3).

The answers to questions are presented for Poland and Southeastern European countries (Bulgaria, Croatia, Georgia, the Republic of North Macedonia, Moldova, Montenegro, Romania) in Table 5.

The data below show that both Poles and residents of the analysed Southeastern European countries intend to rely mainly on state pensions when they leave the labour market. At the same time, in both cases, they intend to rely much less on private savings. However, there are some differences in attitudes towards continuing to work after retirement. Poles are less likely (20.9%) than respondents from South-East European countries (41.2%) to say that they do not intend to work to improve their financial situation after retirement.

Table 5: Structure of responses for respondents' stated sources of funding for their future retirement

Specification	Variant of the answer	Poland		Southeastern European countries	
		Number	In %	Number	In %
Draw a government pension	Yes	893	89.3	5,412	78.6
	No	107	10.7	1,476	21.4
	Total	1,000	100.0	6,888	100.0
Draw on savings	Yes	321	32.1	4,401	36.5
	No	679	67.9	2,526	63.5
	Total	1,000	100.0	6,721	100.0
Continue to work	Yes	209	20.9	2,766	41.2
	No	791	79.1	3,955	58.0
	Total	1,000	100.0	6,927	100.0

Source: Author's own work based on OECD data.

The results of the logistic regression for the sources of pension funding of Polish respondents are presented below. It was found that age has a statistically significant effect on the analyzed dependent variables only in Model 1, when a respondent indicates that they fund or will fund their retirement by drawing a government pension.

Table 6: Estimates of the Parameters of Logistic Regression Models for Poland

Variable/variant of variable	M1			M2			M3		
	SE	p	Exp (B)	SE	p	Exp (B)	SE	p	Exp (B)
Age	0.009	<0.001	1.044						
Place of residence									
A village, hamlet or rural area					<0.001				
A small town	-	-	-	0.296	0.090	0.605	-	-	-
A town				0.272	0.066	0.606			
A city				0.252	0.036	0.590			
A large city				0.372	0.005	2.877			
Education								0.031	
University level							0.225	0.046	1.565
Upper secondary school or high school	-	-	-	-	-	-	0.295	0.898	0.963
Lower secondary school									
Primary school or no formal education							0.765	0.153	0.335
Work situation									
Self-employed					<0.001				
In paid employment				0.374	0.767	0.895			
Not working	-	-	-	0.699	0.317	0.496	-	-	-
Student, pupil, apprentice				0.615	<0.001	7.583			
Retired				0.488	0.392	0.682			
Income band/1 month									
Up to PLN 2,950					<0.001			<0.001	
Between PLN 2,950 and PLN 4,850	-	-	-	0.332	0.002	2.862	0.383	<0.001	3.949
PLN 4,850 or more				0.342	<0.001	3.778	0.384	<0.001	6.419
Covering expenses									
At least 3 months		0.020			<0.001			0.007	
At least 1 month, but not 3 months	0.342	0.036	1.194	0.365	0.002	0.331	0.222	0.194	1.334
Less than 1 month	0.324	0.604	0.508	0.313	<0.001	0.193	0.291	0.420	0.791
Don't know	0.426	0.076	0.469	0.223	<0.001	0.401	0.466	0.009	0.297
Self-rated knowledge									
Low	-	-	-		0.006		-	-	-
Average				0.250	0.122	1.471			
High				0.313	0.002	2.688			
Currently holding a savings account	-	-	-	0.199	<0.001	3.424	0.196	<0.001	2.234
Satisfaction with present financial situation	-	-	-	0.093	0.001	0.736	0.094	0.005	0.767
Trust in financial service providers	-	-	-	0.100	0.048	0.820	-	-	-
Constant	0.439	0.150	1.777	0.617	0.460	0.634	0.478	<0.001	0.082

Variable/variant of variable	M1			M2			M3		
	SE	p	Exp (B)	SE	p	Exp (B)	SE	p	Exp (B)
Cox–Snell's R-squared		0.047			0.279			0.134	
Nagelkerke's R-squared		0.099			0.389			0.206	
Hosmer-Lemeshow (p-value)		0.213			0.092			0.327	
Log likelihood		444.199			708.915			685.381	
N		758			758			758	

Source: Author's own work based on OECD data.

The results of the logistic regression analysis show that the propensity to indicate a state pension (M1) as a source of financial security in old age increases with age. The odds of relying on the government pension increase by 4% for every additional year of life. Besides, there is another statistically significant predictor that can be pointed to. These are savings that allow individuals and households to cover their living costs in the event of the loss of their main source of income without having to borrow or move house. Those with higher levels of savings have lower expectations of relying on the state pension in old age. Respondents who indicated that they would be able to cover their living expenses for one to three months if they lost their main source of income had lower odds (by 19% compared to those with more than six months' savings) of saying that they would fund their retirement by drawing a state pension.

As a result of the study, statistically significant differences were found between certain groups of individual explanatory variables with savings as a source of funding for retirement (M2). People living in the biggest cities (similar conclusions can be drawn from global studies, which also highlight factors that contribute to lower savings among people living in rural areas – (Tran et al., 2025)), those still in education, and higher earners are more likely to say they are using or intend to use private savings for retirement. Respondents who live in a large city have 2.9 times higher odds of drawing a private savings in old age when compared to residents of villages, hamlets, or rural areas. The odds are also significantly higher (7.5 times) for students, pupils, and apprentices compared to the self-employed. This may be because young people say they will save additionally for their retirement. However, this may just be an assumption that will not be realized.

Moreover, we show that income - as in the other studies (Kowalczyk-Rólczyńska & Rólczyński, 2024) - has a positive impact on the declaration of private pension savings. Poles with the highest surveyed income have higher odds of using savings in their old age (by 278%) compared to people in the lowest income band (less than PLN 2,950 per month). The difference between respondents in the middle and highest income bands is 186%. Similarly, those who would be able to continue to cover their living expenses for a longer period without borrowing money or moving house if they lost their main source of income are more likely to do so. Poles whose savings would allow them to cover their expenses for at least three months have 81% higher odds of drawing on their savings to fund their retirement than those who would have enough for less than one month. In addition, the odds of saving for a private pension increase for Poles who rate their overall financial literacy as high compared to other adults. They are 2.7 times higher in comparison to respondents who declare low knowledge. This may indicate that people's perceptions of their level of financial literacy may influence the level of their financial situation in retirement. Interestingly, on the other hand, the level of formal education was found to be statistically insignificant. In addition, the mere fact of currently having a savings account increases the odds of using the savings in retirement compared to those who do not currently have a savings account (by 242%). The odds also depend on satisfaction with one's financial situation and trust in financial service providers. It was found that the lower the level of satisfaction with one's present financial situation, the lower the odds (by 36 per cent for every one level of satisfaction). The research also shows that a decrease in trust in financial services providers on a scale of one to five, from 'completely trust' to 'not at all trust', reduces the odds of using private savings as a source of funding for retirement by 18%. In our research, gender does not influence decisions regarding the financing of retirement through savings. For example, the study by Xie et al. (2023), which was also conducted on the Polish market, also found that gender did not impact decisions about saving for retirement.

The study also shows (M3) that mainly Poles with a better financial situation intend to continue working in retirement. People with a monthly household income of PLN 4,850 or more have 6.4 times higher odds of continuing to work. On the other hand, people whose savings will allow them to cover their expenses for at least three months have 70% higher odds of con-

tinuing to work than those who say that they do not know how long their savings will last. Moreover, people with a savings account are much more likely to intend to continue working (odds higher by 123% compared to Poles without a savings account), as well as those who are most satisfied with their financial situation. As the level of satisfaction decreases by one level, the odds of continuing to work in retirement decrease by 23%. Taking into account the level of education, people with upper secondary or high school education are the most likely to finance their retirement by continuing to work.

The aforementioned results refer to the factors influencing retirement security in Poland. However, to formulate more significant conclusions, it is essential to present results from other countries from East and South Europe. The results of logistic regression models for Southeastern European countries are presented in Table 7.

Table 7: Estimates of the Parameters of Logistic Regression Models for Southeastern European countries

Variable/variant of variable	M1			M2			M3		
	SE	p	Exp (B)	SE	p	Exp (B)	SE	p	Exp (B)
Age	0.004	0.013	1.010	0.003	<0.001	0.987	-	-	-
Gender	-	-	-	-	-	-	0.073	0.018	1.188
Place of residence									
A village, hamlet or rural area		<0.001			0.015			<0.001	
A small town	0.173	0.493	1.126	0.140	0.017	0.716	0.138	0.066	0.776
A town	0.126	0.010	1.381	0.093	0.758	1.029	0.100	<0.001	0.646
A city	0.110	0.661	0.953	0.089	0.408	1.076	0.093	0.668	1.041
A large city	0.150	0.004	0.650	0.133	0.062	1.282	0.139	0.073	1.284
Education									
University level					<0.001			0.007	
Upper secondary school or high school	-	-	-	0.076	<0.001	0.766	0.080	<0.001	0.759
Lower secondary school				0.142	0.957	1.088	0.154	0.350	0.866
Primary school or no formal education				0.186	0.033	0.674	0.208	0.184	0.759
Work situation									
Self-employed		<0.001			<0.001			<0.001	
In paid employment	0.122	<0.001	1.680	0.101	<0.001	0.708	0.110	<0.001	0.415
Not working	0.148	0.013	0.693	0.136	<0.001	0.584	0.145	<0.001	0.290
Student, pupil, apprentice	0.243	0.934	1.020	0.212	0.956	0.988	0.211	<0.001	0.386
Retired	0.184	<0.001	2.149	0.140	0.002	0.644	0.145	<0.001	0.079
Income band/monthly									
Up to $X	-	-	-		<0.001			<0.001	
Between $X and $Y				0.094	0.311	0.910	0.098	0.842	1.020
$Y or more				0.097	<0.001	0.640	0.100	0.001	0.724
Covering expenses									
At least 3 months					<0.001			<0.001	
At least 1 month, but not 3 months	-	-	-	0.095	0.009	0.779	0.101	0.102	0.842
Less than 1 month				0.100	<0.001	0.542	0.103	<0.001	0.672
Don't know				0.131	0.014	0.724	0.145	0.556	0.918
Self-rated knowledge									
Low		0.026			<0.001			<0.001	
Average	0.116	0.521	0.928	0.093	<0.001	1.515	0.098	<0.001	1.495
High	0.137	0.016	0.719	0.115	<0.001	1.545	0.120	0.097	1.220
Currently holding a savings account	0.106	<0.001	1.527	0.092	<0.001	1.423	0.087	0.001	0.079
Cash at home or in a wallet	0.088	0.013	1.243	0.072	<0.001	2.560	0.074	<0.001	1.548

Variable/variant of variable	M1			M2			M3		
	SE	p	Exp (B)	SE	p	Exp (B)	SE	p	Exp (B)
Paying money into a savings/deposit account	-	-	-	0.093	0.002	1.336	-	-	-
Satisfaction with present financial situation	-	-	-	0.028	<.001	.867	-	-	-
Constant	0.243	0.006	1.940	0.247	0.033	1.692	0.196	<0.001	2.407
Cox–Snell's R-squared		0.042			0.145			0.152	
Nagelkerke's R-squared		0.070			0.197			0.203	
Hosmer-Lemeshow (p-value)		0.168			0.291			0.177	
Log likelihood		3,4771.283			5,169.963			4,616.480	
N		3,935			4,361			3.823	

Source: Author's own work based on OECD data.

The study shows that age has a statistically significant effect on stated attitudes towards government pension (M1). With each additional year of life, the odds of respondents stating that they will fund their retirement by drawing a government pension increase by 1%. Besides that, people living in the largest cities (with more than 1 million inhabitants) have lower odds of relying on a state pension (by 35%) than those living in a village, hamlet, or rural area. These odds are also higher for those in paid employment (by about 70%) and lower for those not in employment (by about 30%) than for the self-employed. Especially in the case of the latter, it is obvious that if they have not paid social security contributions, they cannot count on a state pension. In addition, those with a self-rated high level of overall financial literacy are less likely (odds lower by 28%) to say they will rely on a state pension than those with a low self-rated level of financial literacy. In addition, having a current savings account and having paid into a savings/deposit account in the last 12 months increases the odds of receiving a state pension by 53% and 24% respectively. This may be because savings accounts are held and paid into by those in employment, who, as noted above, are more likely to report that they will receive a state pension.

As with Model 1, attitudes to drawing on savings as a source of funding for retirement (M2) vary by age. The closer people get to retirement age (and the older they get), the less likely they are to claim that they will finance their retirement from their savings. The odds of this decrease by 11% with each additional year of life. Other studies conducted in Southeastern European countries also indicate that age, as income, plays an important role in the choice of private financial instruments for securing old age (Beckmann et al., 2013).The odds of using savings in retirement are higher for people living in rural areas (by 28%) than for those living in small towns, and for those with a university education (by 23%) than for primary school or no formal education. Other studies also show that better-educated people and those with financial skills are more likely to save for retirement (Amari et al., 2020; Gerhard et al., 2018).

The financial resources at hand are relevant for the approach to sources of funding for old age. Those whose savings would allow them to continue to cover their living expenses for at least three months in the event of the loss of a source of income are almost twice as likely to have savings for retirement compared to those with less than one month's savings. Self-reported knowledge of financial matters also influences the use of retirement savings. Those who rate their financial knowledge as high are more likely (by 55%) to draw on savings in retirement than those who rate their knowledge as low. The logistic regression results also show that people who currently have a savings account are more likely to have private savings in old age (about 42% higher odds compared to those who have no savings). This is also the case for respondents who have saved cash at home/in their wallet or paid money into a savings/deposit account in the last year, regardless of whether they still have the money or not. The odds are 2.5 and 1.3 times higher, respectively compared to those who have not done so in this period. Additionally, the lower the degree of satisfaction with one's present financial situation, the lower the propensity to use savings in retirement (by 13%, as satisfaction decreases with each additional level on a five-point scale).

Gender was only statistically significant in Model 3. Men were more likely than women (by 20% higher odds) to say that they would continue to work to finance their old age. A difference was also found between rural and urban residents. The former intend to work longer (odds higher by 35%). Taking into account their working situation, the self-employed are by far the most likely to declare their intention to finance

their retirement by drawing on savings. The odds of drawing on private savings is almost 60% higher than for employees and 71% higher than for those not employed.

Education and knowledge also influence whether people continue to work after retirement. People with university education are ca. 25% more likely to work for a longer period than those with only upper secondary education. People with low self-reported levels of knowledge are less likely (odds lover by 50%) to work longer in old age than people who rate their knowledge as average.

When analysing respondents' income and savings levels we found that those with the lowest average monthly household income are the most likely to intend to work longer to improve their financial situation in retirement (odds higher by 30% compared to those with the highest income). On the other hand, having savings to cover less than one month's expenses reduces the odds of continuing to work in retirement by 33% compared to people with savings to cover their expenses for at least three months without income. Finally, people with no current savings have by almost 100% higher odds to intend to continue working to fund their retirement. Respondents who have saved money at home or in a wallet in the last 12 months are more likely to say they want to continue working (odds increase by more than 50%). This may be because they had savings in the past and are more willing to have them also in the future from work.

Conclusions

The analyses conducted for Poland and for Southeastern European countries show that age has a statistically significant effect on stated attitudes towards the state pension (M1). For each additional year of life, the odds of respondents declaring that they will fund their retirement by drawing a state pension increase by 4.4% (Poland) and 1% (Southeastern European countries). The older people get, the more they tend to rely on the state pension system. Why is this? Perhaps the main reason is the lack of alternative forms of retirement security, which older people are particularly aware of. This, in turn, leads them to rely on the state pension for lack of other options, as research on Europe may suggest (M2). Moreover, the closer people get to retirement age (and the older they get), the less likely they are to say that they will finance their retirement from their savings. The odds of this decrease by 11% with each additional year of life. So, in light of the above findings there is no evidence to reject the hypothesis 1.

A positive conclusion from both studies is the relationship between knowledge and retirement savings. Those who rate their financial knowledge as high are more likely to save for retirement than those who rate their knowledge as low. However, in the case of the respondent's place of residence (in the European study), it can be suggested that the larger the place of residence, the greater the likelihood of relying on one's savings rather than on the state (in the case of Poland, the above statement is only partly true).

An important conclusion to be drawn from the conducted research is the relation between a favourable financial situation, self-rated knowledge, and a higher level of savings as a means of financing retirement in the future.

The final and most important conclusion to be drawn is that respondents identify the state as the primary source of retirement security. This trend is observed in both the Poland study and South European countries. However, as pension systems are reformed due to demographic changes, relying on the state pension alone may not be sufficient for people. Thus, there is no evidence to reject the hypothesis 2. What can cause such behaviour? In our view, it is unfortunately a consequence of the economic system that prevailed in the post-war years, namely socialism. Despite significant economic changes, people in Central, Eastern and Southern Europe still do not rely on their own economic behaviour in terms of savings, and look mainly to the state for help.

In our study, we have shown that many factors influence retirement decisions. These decisions cannot be assessed solely in terms of the existence of supplementary savings, as they are also influenced by both the level of the state-guaranteed pension and the individual's perception of this security. Of course, sociodemographic characteristics such as age play a crucial role in shaping these decisions. The following words can provide a summary of our paper (Mitchell & Lusardi, 2022, p. 15): “(…) it is now high time to focus on strategies to help all people”, women and men, educated and uneducated, younger and older individuals, “to find and remain on a path to financial security”. However, finding the right pension strategy in the context of changing demographics, limited financial resources and political pressures will not be easy in any of the analyzed countries.

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