

Factors Determining the Possession of Voluntary Retirement Savings by Individuals

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Aim

The aim of the article is to identify demographic-economic-financial factors influencing savings accumulation in Individual Private Pension Plans in selected European countries. Furthermore, the authors compared the impact of these identified factors on savings in Individual Private Pension Plans across the selected countries. The group of countries included in the analysis included: Poland, Bulgaria, Czechia, Germany and Austria.

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Introduction

In today's world, in the context of the global retirement crisis, saving for retirement is becoming increasingly important. One of the tools that can help secure future financial needs is having voluntary retirement savings. This presentation will discuss the factors that determine individuals' possession of such savings, along with an analysis of empirical studies on the topic.



Introduction

Analysis of empirical studies on factors influencing the decision to save for retirement with voluntary retirement savings depends on many factors, including demographic, socio-economic, psychological, and cultural factors. The analysis of empirical studies allows us to identify the most important factors influencing the decision to save for retirement, and thus develop effective strategies and actions to increase financial awareness and encourage retirement savings.



Factors determining voluntary retirement savings

- A study conducted in Canada by the Institute for Research on Public Policy found that income level, education, and marital status have a positive impact on saving for retirement. Younger individuals, those working in the private sector, and those with less work experience are less likely to save for retirement. Study conducted in Canada by the Institute for Research on Public Policy: Source: "Do Financial Incentives Encourage Retirement Savings? Evidence from the Canadian RESP Program" (2019) by A. Heisz and S. Larochelle-Côté.
- A study conducted in the United States by the Employee Benefit Research Institute found that among demographic factors, age is the most important determinant of saving for retirement. The older a person is, the more likely they are to have voluntary retirement savings. "The 2020 Retirement Confidence Survey: A Generation Reexamined" (2020) by Greenwald et al.

Factors determining voluntary retirement savings

- A study conducted in Poland by the National Bank of Poland found that education level, wealth, and life satisfaction have a positive impact on saving for retirement. Women are more likely to save than men, and individuals with less life experience are less likely to save for retirement. "Determinanty oszczędzania na cele emerytalne przez gospodarstwa domowe w Polsce" (2020) by E. Szkuta et al.
- A study conducted in the United Kingdom by the Department for Work and Pensions found that one of the most important factors determining retirement savings is the level of employer contributions to the savings program. The higher the contributions, the more likely employees are to save for retirement. "Automatic enrolment evaluation report 2020" (2020) by the Department for Work and Pensions.

Factors determining voluntary retirement savings

- A study conducted in Japan by the Research Institute of Economy, Trade and Industry found that cultural values, such as dedication to work and family life, can influence the decision to save for retirement. Individuals with a higher sense of social and family responsibility are more likely to save for retirement. "Social norms and saving for retirement: A study of Japanese households" (2018) by K. Hori et al.

Characteristics of variables and samples

Description of variable	The variant of variable	n			
		PL (9837)	DE (10425)	CZ (6376)	AT (4552)
Age	18 - 29	1157	1664	572	600
	30 - 39	2433	2223	1277	1017
	40 - 49	2801	2084	2077	1143
	50 - 59	2578	3075	1781	1431
	60 - 64	868	1379	669	361
Gender	Male	4902	5333	3189	2328
	Woman	4935	5092	3187	2224
Marital status	Never married	1992	4167	1767	1754
	Married	7016	5004	3601	2264
	Separated	35	188	0	78
	Widowed	245	139	109	42
	Divorced	549	927	899	414
Self-defined current economic status	Employee working full-time	9413	7215	6136	3262
	Employee working part-time	424	3210	240	1290
Type of contract	Permanent job: work contract of unlimited duration	7624	8995	5833	4282
	Temporary job: work contract of limited duration	2213	1430	543	270

Characteristics of variables and samples

Description of variable	The variant of variable	n			
		PL (9837)	DE (10425)	CZ (6376)	AT (4552)
Spend a small amount of money each week on yourself	Yes	8259	8945	5634	4248
	No - cannot afford it	540	599	114	175
	No - other reason	1038	881	628	129
Public/private employment sector	Public	3264	2098	2083	1306
	Private	6507	8327	4112	3246
	Mixed	66	0	181	0
Non-Cash employee income	No income	6617	9776	1818	96
	Income	3220	649	4558	4456

Research method

The logistic regression model was used to achieve a research goal and describe how several variables interact with a dichotomous variable Y.

The dependent variable – make contributions to individual private pension plans – is dichotomous, as follows:

$$Y = \begin{cases} 1 - \textit{make contributions} \\ 0 - \textit{no contribution} \end{cases}$$

Research method

The goodness of fit of the model was examined using the Hosmer-Lemeshow, Nagelkerk's R^2 , and Cox and Snell's R^2 tests. The chi-square value for the former (> 0.05) proves that the model was well-fitted to the data.

Similarly, the values of Nagelkerk's R^2 , as well as Cox and Snell's R^2 , show a good fit to the data.

Estimation results for logistic regression model for Poland

Variables	B	Significance	Level of significance	Exp B
Age (base: 18 - 29)				
30 - 39	1.050	***	<.001	2.857
40 - 49	1.045	***	<.001	2.843
50 - 59	1.209	***	<.001	3.350
60 - 64	0.544		0.115	1.723
Type of contract (base: Permanent job: work contract of unlimited duration)				
Temporary job: work contract of limited duration	0.385	*	0.012	0.680
Public/private employment sector (base: Public)				
Private	-0.250	*	0.018	0.779
Mixed	0.190		0.718	1.209
Non-Cash employee income (base: No income)				
Income	0.758	***	<.001	2.134
Constatnt	-4.237	***	<.001	0.014

*-indicates significance level at 0.05 level

** - indicates significance level at 0.01 level

***- indicates significance level at 0.005 level

Estimation results for logistic regression model for Germany

Variables	B	Significance	Level of significance	Exp B
Age (base: 18 - 29)				
30 - 39	0.611	***	<.001	1.842
40 - 49	0.947	***	<.001	2.577
50 - 59	0.840	***	<.001	2.317
60 - 64	0.555	***	<.001	1.741
Gender (base: Man)				
Woman	-0.092		0.086	0.912
Marital status (base: Never married)				
Married	0.123		0.042	1.131
Separated	-0.272	*	0.173	0.762
Widowed	0.231		0.264	1.260
Divorced	0.026		0.787	1.026
Self-defined current economic status (base: Employee working full-time)				
Employee working part-time	-0.260	***	<.001	0.771

Estimation results for logistic regression model for Germany

Variables	B	Significance	Level of significance	Exp B
Type of contract (base: Permanent job: work contract of unlimited duration)				
Temporary job: work contract of limited duration	-0.668	***	<.001	0.513
Spend a small amount of money each week on yourself (base: Yes)				
No - cannot afford it	-0.899	***	<.001	0.407
No - other reason	-0.733	***	<.001	0.480
Public/private employment sector (base: Public)				
Private	-0.420	***	<.001	0.657
Non-Cash employee income (base: No income)				
Income	0.950	***	<.001	2.586
Constatnt	-1.440	***	<.001	0.237

Estimation results for logistic regression model for Czechia

Variables	B	Significance	Level of significance	Exp B
Age (base: 18 - 29)				
30 - 39	1.021	***	<.001	2.777
40 - 49	1.508	***	<.001	4.516
50 - 59	1.691	***	<.001	5.425
60 - 64	1.895	***	<.001	6.655
Gender (base: Man)				
Woman	0.142	*	0.013	1.152
Marital status (base: Never married)				
Married	0.457	***	<.001	1.579
Widowed	0.636		0.011	1.890
Divorced	0.028		0.774	1.029

Estimation results for logistic regression model for Czechia

Variables	B	Significance	Level of significance	Exp B
Type of contract (base: Permanent job: work contract of unlimited duration)				
Temporary job: work contract of limited duration	-0.366	***	<.001	0.694
Spend a small amount of money each week on yourself (base: Yes)				
No - cannot afford it	-1.790	***	<.001	0.167
No - other reason	-0.187	*	0.040	0.830
Public/private employment sector (base: Public)				
Private	-0.157	*	0.011	0.855
Mixed	-0.548	***	<.001	0.578
Non-Cash employee income (base: No income)				
Income	0.646	***	<.001	1.907
Constatnt	-1.475	***	<.001	0.229

Estimation results for logistic regression model for Austria

Variables	B	Significance	Level of significance	Exp B
Age (base: 18 - 29)				
30 - 39	0.819	***	<.001	2.268
40 - 49	1.148	***	<.001	3.153
50 - 59	1.027	***	<.001	2.794
60 - 64	0.699	***	<.001	2.011
Marital status (base: Never married)				
Married	-0.152	*	0.048	0.859
Separated	-0.369		0.141	0.691
Widowed	-0.846	*	0.021	0.429
Divorced	-0.222		0.071	0.801
Self-defined current economic status (base: Employee working full-time)				
Employee working part-time	-0.257	***	<.001	0.773

Estimation results for logistic regression model for Austria

Variables	B	Significance	Level of significance	Exp B
Type of contract (base: Permanent job: work contract of unlimited duration)				
Temporary job: work contract of limited duration	-0.445	***	.002	0.641
Spend a small amount of money each week on yourself (base: Yes)				
No - cannot afford it	-1.234	***	<.001	0.291
No - other reason	-1.339	***	<.001	0.262
Public/private employment sector (base: Public)				
Private	-0.323	***	<.001	0.724
Constant	-0.746	***	<.001	0.474

Summary

- In all countries, the variables of *age*, *public/private employment sector*, and *type of contract* were statistically significant determinants of the dependent variable.
- For Germany, Austria, and Czechia, the variables of *marital status* and *spending a small amount of money each week on oneself* were statistically significant determinants of the dependent variable.
- For Poland, Germany, and Czechia, the *Non-Cash employee income variable* was a statistically significant determinant of the dependent variable.

Summary

- The first conclusion relates to the consensus in the literature regarding factors influencing decisions to save for retirement. Authors of many studies confirm that age, employment sector, and type of contract are significant determinants of decisions to save for retirement.
- The second conclusion is consistent with research on the impact of socio-economic factors, such as marital status, on decisions to save for retirement. Additionally, personal expenses seem to be an important factor influencing decisions to save.
- The third conclusion aligns with literature on the impact of different forms of compensation on saving for retirement. Accumulated studies confirm that additional employee benefits, such as life insurance and savings plans, can significantly impact decisions to save for retirement.

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