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Exploring the Socio-Economic Factors Influence on Saving for the Future in Poland

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Abstract

Motivation: The rapid pace of modern economic changes have profoundly impacted Polish society, with adverse demographic shifts posing a significant challenge to long-term financial sustainability. The possibility of obtaining an insufficient amount of fiscal resources is necessary for taking responsibility for one's own life after retirement. Better understanding of the factors influencing the decision to saving for the future becomes an important matter.
Aim: The study aims to identify the variables that significantly influence the probability of saving for the future. A potential target group would be identified and used for further research on implementation of support programs and incentives for saving for the future.
Results: An analysis has used logit models and it was conducted on the data from 509 respondents in Poland. The results indicate that younger people are more likely to take the initiative to saving for the future in comparison to a group of people who are at the end of their careers. In addition, factors such as a higher level of education, higher income, and salary satisfaction, among others, significantly increase the likelihood of saving for the future. An analogous situation exists among those with sustainable consumer spending, e.g. individuals who do not allocate all of their current income growth to consumer spending. Furthermore, people who are convinced of their ability to accumulate funds for a higher pension on their own are more likely to undertake saving for the future. The results suggest that programs

should target younger generations with lower income levels and education. Raising financial awareness and encouraging sustainable financial management may provide enough money for the retirement in the face of current demographic challenges. The results obtained may form the basis for the development of optimal, effective educational strategies and financial incentives that would ensure the financial security and stability of citizens at the end of their working lives.

Keywords: pension system, saving, demographics, logit models
JEL: C01; E21; J26

1. Introduction

Demographic structure of population influences the design of the pension system. The shift from traditional family model towards modern tendencies presents a challenge. The increase in the number of people in the post-working age and the extension of life expectancy (due to advances in medicine and hygiene), have led to a shrinking population (Powell, 2010). Currently, there is an aggravation of the issue, as the Baby Boomers (individuals who were born between 1949–1963) have reached retirement age and started accumulating the benefits, and also the population is declining instead of growing. In the face of the demographic catastrophe, which according to many economists, has already occurred (Valverde, 2007; Balicki, 2010; Janiszewska, 2013; Andrzejewski, 2024), society is forced to ponder the question of how efficient the pension system would be in a few decades and how high the benefits from such a system may be (Rakowska, 2013).

Traditional pension systems may not be able to meet future needs, forcing younger generations to take more responsibility for their financial security. The article aims to explore what factors in the research sample influence the increased probability of saving for the future. Furthermore, it identifies the elements that should be analyzed to uncover opportunities for improving one's life in the future. It may provide a basis for developing optimal, effective educational strategies and financial incentives. Moreover, understanding individual motivations and barriers to saving behaviors may inform targeted educational campaigns and policy interventions aimed at enhancing financial preparedness among various demographic groups. In order to achieve this goal, variables that are potential determinants of the decision to save for the future were selected based on the literature.

The research gap justifies this study, which focuses on the insufficient understanding of socio-economic factors affecting selected age groups of Poles. It also determines what impact their decisions to saving for the future. In light of demographic challenges like an aging society and declining generational replacement rates, there is a lack of analyzes identifying, which

characteristics (age, education, income satisfaction) impact saving decisions. Addressing this gap, which could enable the development of effective educational and financial strategies, that support citizens' fiscal stability in the future. In light of this perspective, the research question emerges: Which factors most significantly impact the decision to save for the future? The survey was conducted in December 2021 in Poland using the CAWI method. The research sample included two age groups: 18-29 and 50–60, which were selected for their importance in saving for the future. The 18–29 group represents young people, where some of them are still inactive and focused on education. This group is limited by their ability to saving, but also represents a crucial moment in the formation of financial attitudes. The 50–60 group, on the other hand, is at the end of its working life and will soon begin collecting retirement benefits, highlighting the need for earlier financial preparation.

In Poland, the biggest change to the pension system was enacted in 2016. As of January 1, 2017, the retirement age was lowered to 60 for women and 65 for men. From 2013 to 2017, the retirement age for both men and women was 67, and in earlier years, it was at the same level as it is now (Lamański, 2023). Current economic and demographic trends are forcing Europe, to extend the retirement age. Two perspectives may be distinguished: microeconomic and macroeconomic. In the microeconomic approach, an individual makes contributions during his working life, which are intended to secure his financial situation in the future. The macroeconomic perspective, involves not only paying contributions, but also actively saving additional capital using various financial instruments (Czopik & Szczepańska-Przekota, 2023). In the absence of clear decisions to raise the retirement age by public authorities, the macroeconomic approach is of particular importance. The need for capital accumulation is particularly important among young people, since it is this group that may face inadequate pension benefits in the future. Individual measures to save funds undertaken at a young age have the greatest potential for effectiveness in the long term. Systematic accumulation of capital early in working life significantly increases the chances for post-career financial security. Early action minimizes the risk of falling into poverty in old age and allows for the provision of funds necessary to meet consumption.

In Poland, in 2023 there were already 71 people of non-working age for every 100 people of working age, and forecasts indicate that by 2050 this ratio may exceed 100 (Rutkowska, 2014). In 2022, there were 39 retirees for every 100 people of working age, and that number may double in 30 years. Changing demographics mean that individual financial strategy plays a key role as future generations of retirees may not be able to live on public benefits alone (Łubian, 2023).

The following section will present the literature review, methods and key findings of the study.

2. Literature review

The need to saving for the future is becoming increasingly important in light of demographic changes and the challenges undermining pension systems in Europe. Numerous publications draw attention to the many difficulties facing the Polish pension system, including the problem of an aging population and the risk of insolvency. These phenomena generate the requirement to accumulate funds for saving purposes (Dębska & Krasuski, 2014). With an aging population and declining birth rates, the financial burden on public pension systems is increasing, making it crucial that individuals actively engage in securing their financial well-being in the future (Amaglobeli et al., 2020). The literature increasingly discusses the need for individual saving.

In the literature, there is an identification of determinants, which affect the individual's decisions to saving for the future. Saving is defined as the renunciation of current consumption in favor of future consumption, often realized by investing money in various types of financial tools. Its goal is to generate income to enable later consumption. Income thus becomes the main determinant of consumer spending and the level of saving (Korenik, 2003). The decision to save may be influenced by salary satisfaction. At the same time, research indicates that the benefits of saving include improved well-being (Shim et al., 2012). This stems from the protection against sudden financial shocks and the ability to realize life's aspirations (Barrafr et al., 2024).

One of the basic theories of saving is the Life Cycle Theory that was created by F. Modigliani and R. Brumberg. The theory assumes that people, in order to maintain a steady standard of living, limit saving at the beginning and end of their lives. This is caused by insufficient income, which is important to determines the right time to begin saving (Modigliani & Brumberg, 1954). In contrast, from the behavioral perspective presented by H. Shefrin and R.H. Thaler, individuals encounter difficulties with self-control, which leads to the preference for immediate consumption over saving (Shefrin & Thaler, 1988). Therefore, it becomes particularly important to shape the awareness, so that younger generations engage in saving from an early age, set clear financial goals and develop self-control mechanisms.

Promoting a culture of saving is essential to building financial security for retirement. Saving trends should be expanded through useful and, most importantly, effective tools that encourage society to voluntarily take responsibility for financing their future expenses and, consequently, ensure a secure and stable passive income in later life (Ellen et al., 2012). Saving for the future has become a sensible way to respond to ongoing demographic changes. From an individual's perspective, when society chooses to set aside financial

resources independently, it becomes the optimal solution. Countries where citizens have accumulated substantial saving may maintain higher pension levels. As a result, the population would receive more favorable benefits, even in challenging economic or demographic conditions (Cavallo & Serebrisky, 2016). Poland's household saving rate is one of the lowest in Europe. The average share of targeted saving for retirement is equally low and operates largely on a single system. Introducing appropriate incentive policies in retirement saving is becoming an important element in ensuring financial security (Xie et al., 2023). Thus, implementing incentive based one the policies for retirement saving is crucial to ensure financial security in the future.

Financial knowledge is correlated with optimal financial behavior, and therefore with the accumulation of saving for the future. The research confirms that both objective and subjective knowledge explains sustainable financial behavior (Lind et al., 2020). The level of education plays a critical role, as it is a determinant of one's ability to acquire knowledge. The ability to plan for the future and prioritize long-term financial goals is essential in saving behavior. People with a higher future orientation are inclined to set aside funds for future needs (Sliwa, 2024). People who are confident in their ability to manage their finances and accumulate wealth are more likely to save for the future. The meaning of certainty is often linked to confidence in their own financial abilities and the awareness of the economic situation while having more control over the future (Barrafr et al., 2024).

Decisions to save for the future are often shaped by an individual's current consumption patterns. Individuals who practice balanced consumption, avoiding excessive spending on non-essential goods, are more likely to saving for the future (Frączek, 2012). An important factor, which influences saving behavior is salary satisfaction. People who are satisfied with their income are more likely to save, because they feel more confident in their financial situation and are able to set aside funds for the future (Barrafr et al., 2024).

Trust in the pension system has a significant impact on individual's decisions to save on their own. Individuals who have confidence in the stability and reliability of the public pension system may be less inclined to save for the future on their own. Governments may influence saving behavior through policies that encourage saving, such as tax breaks for retirement saving, matched contributions or financial education programs. Effective policies may increase the probability that individuals will engage in long-term saving (Wierzbicka, 2018).

The economic research underscores that consumption levels often decrease significantly after retirement, with studies by Bernheim, Skinner, and Weinberg (2001) demonstrating a strong negative correlation between retirement saving and post-retirement consumption. This trend highlights a psychological barrier in financial management, where individuals tend to delay saving and planning for the future. The list of typical mistakes in public finance management, compiled by Glink, places the tendency to procrasti-

nate at the top. The result of the list underscores the tendency of people to postpone decisions to saving and plan for financial security for the future. The list identification mistake like a psychological barrier that may hinder effective management of personal finances, especially in the face of demographic challenges and uncertainty about future pensions (Glink, 1999).

With financial security under threat, there is not enough research on attitudes toward saving by the young people in Poland. The most recent detailed study of young Poles' saving decisions was conducted by Xie et al. (2023). The behavioral, financial, demographic, and educational determinants of saving for retirement were analyzed in two groups of young adults, aged 18–24 and 25–29, in comparison to those aged 50–60. A study using logit models identified significant factors influencing the decision to saving by age groups. In the 18–24 age group, significant factors included investment experience, education level, and saving level. On the other hand, in the 25–29 age group, among others, the level of saving was significant. In the 50–60 age group, the level of wealth was important in the decision to save (Xie et al., 2023). However, additional studies revealed alarming trends among young Poles. The survey verb by CRiF showed that young people aged 18–25 are unable to pay off consumer loans, rent and phone bills. On average, it was 4113.38 zlotys of debt. The number of debtors and the amount of liabilities are growing in this age group at the fastest rate in Poland. Moreover, they tend to spend money driven by trends and the desire to maintain high living standards, without having an adequate understanding of financial mechanism. Although the surveyed group was more aware of the need to save and manage finances than their peers from a decade earlier, there remains a need for financial education and greater public awareness in this (CRiF, 2022). The survey conducted by the Institute of Finance indicates that the decision to save in Poland depends significantly on the age, education, occupational situation of household members and net monthly income of households (Trębska, 2024). On the other hand, one of the older surveys indicated the attitudes, opinions and expectations of the Polish public, which suggested determinants of taking the decision to saving. When asked, "What would have to change for you to start saving long-term?" respondents first pointed to an increase in income, the need to reduce spending and setting a specific saving goal (TNS, 2014).

The literature's emphasis on the relevance of the problem of awareness and taking initiatives, programs to encourage individual action, related to financial planning for one's future, becomes a motivation for further research. In particular, despite the widespread perspective of deepening demographic and capacity problems of pension systems, countries are not taking action in this regard or are ineffective. In addition, there is a noticeable lack of public favor for raising the retirement age. All of this contributes to increasing awareness of future life and motivates individuals to save in order to secure

future consumption. The conducted survey is intended to help identify the target group for financial awareness programs and the factors that enhance the chances of saving for the future in Poland.

Based on the theoretical aspects and the literature review, it is possible to formulate a research question: Which factors most significantly impact the decision to save for the future? In addition, the article poses the following hypotheses:

H1: Age significantly influences decision to save for the future.
H2: Education significantly influences decision to save for the future.
H3: Income level significantly influences decision to save for the future.
H4: Not spending additional income on consumption increases the probability of saving for the future life.
H5: Reducing the level of current consumption in favor of a higher pension in the future increases the probability of saving for the future.

The hypotheses are based on the assumption that saving decisions are shaped by both material situation and financial behavior related to budget management.

3. Method

The logit model represents variables of a qualitative nature, which most often belong to binary variables. They describe the formation of random endogenous variables that take on values of one or zero. The logit model takes the form (Gruszczyński, 2010):

$$y_i^* = ln \frac{p_i}{1-p_i} = \beta_0 + \beta_1 x_{1i} + \beta_2 x_{2i} + ... + \beta_k x_{ki} + u_i,$$

where:

β_1 – structural parameter of the model,
u_i – random component,
$ln \frac{p_i}{1-p_i}$ – logit,
y_i^* – unobservable variable,
x_{ki} – value of explanatory variables of the model,
p_i – the probability of the dependent variable taking the value 1, determined from the density function of the logistic distribution.

The latent variable is called the unobservable variable y_i^*, but what is observed is the zero-one variable, which is of the form (Kufel, 2007):

$$y_i = \begin{cases} 1 \; y_i^* > 0 \\ 0 \; y_i^* \leq 0 \end{cases}$$

The logit is understood as the quotient of the chances of accepting and not accepting the value of 1 by the variable y_i. Where the chances are equal ($p_i = 0{,}5$, then logit has a value of zero. Logit is negative for $p_i < 0{,}5$, while it is positive for $p_i = 0{,}5$. With the transformation, you may replace the value of with a number in the interval $(-\infty; +\infty)$ by:

$$\frac{p_i}{1-p_i} = \exp(x_i' \beta) = \exp(\beta_0 + \beta_1 X_{1i} + \beta_2 X_{2i} + \cdots + \beta_k X_{ki})$$

This means that an increase by a unit of X_{ji} causes, ceteris paribus, with (β) – fold change in the odds ratio. Values greater than unity cause an increase in the odds ratio, while when it is less than unity a decrease in the odds ratio may be observed (Śliwicki & Ręklewski, 2012).

Elimination of irrelevant variables in the models was carried out based on the a posteriori method. The evaluation of the level of significance may be made by comparing the value, with the parameter β_k, with the level of significance adopted in the study. The hypotheses have the following form:

$H_0 : \beta_k = 0$
$H_1 :: \beta_k \neq 0$

If $\rho \leq \alpha$, then the null hypothesis H_0 should be rejected in favor of the alternative hypothesis H_1. Then the explanatory variable X_0 statistically significantly affects the explanatory variable Y. On the other hand, if the inverse inequality occurs, i.e. $\rho > \alpha$, then there is no basis for rejecting the null hypothesis H_0. The explanatory variable X_0 has a statistically insignificant effect on the explanatory variable Y (Osińska, 2007).

Using the reliability quotient test, the significance of the entire model is verified. The hypotheses of the test take the form:

$H_0: \beta_1 = \beta_2 = \cdots = \beta_k = 0$
$H_1 = \exists_{1 \leq j \leq k} \beta_j \neq 0$

The statistic has the following form:

$$LR = 2(lnL_p - lnL_{ww}),$$

L_p – the value of the reliability function for the full model,
L_{ww} – the value of the reliability function for a model containing only free expression.

Hypothesis verification is performed by comparing the value of the test statistic with the chi-square critical value with the number of degrees of

freedom equal to the number of explanatory variables of the model, for the significance level α adopted in the study. If $LR \geq \chi^2$, the null hypothesis H_0 should be rejected in favor of the alternative hypothesis H_1. This means that the model is correctly constructed. On the other hand, if the inverse inequality occurs, i.e. $LR < \chi^2$, then there is no basis for rejecting the null hypothesis H_0. The model isn't correctly built.

The structural parameters of the model are interpreted as follows. For a positive β_j an increase of one unit of X_j results in an increase in the chance that $Y = 1$. For a negative a decrease of one unit of X_j results in a decrease in the chance that $Y = 1$ (Śliwicki & Ręklewski, 2012).

The collinearity between the studied predictors was assessed based on the variance inflation factor (VIF). When its value is equal to 1, there is a lack of correlation. On the other hand, the value of VIF is between 1 and 5, there is moderate correlation. Values above 5 indicate strong correlation (Daoud, 2017).

The logit model method was selected due to its numerous advantages, including simplicity, versatility, and the ability to intuitively interpret results in terms of probabilities. These models are particularly suitable for analyzing binary variables, which was crucial in the context of the research questionnaire-based dataset. In addition, logit models show robustness to outliers that often appear in survey-based data, making them a particularly apt choice for the present analyzes.

The database was prepared by an external company commissioned by the Department of Economics at the Faculty of Economic Sciences and Management, Nicolaus Copernicus University (Faculty of Economic Sciences and Management of Nicolaus Copernicus University, 2024). The research sample was 509 interviews from Poland, including 402 from the 18–29 age group, and 107 from the 50–60 age group. The detailed distribution structure of the survey's variables is presented in Table 1. In order to implement the study, 3 binary logit models were created. The data was divided and included in the 3 models for the sake of quality and reliability of the results. The models were estimated using the GRETL program, with an assumed significance level of 10%.

In each model, the dependent variable Y – „Do you save for the future?" 1 symbolized a person saving for the future, while 0 symbolized a person not saving for the future. Meanwhile, the explanatory variables in each model were labeled as follows:

- Model 1:
  - X1 – gender $\begin{cases} 1 - \textit{woman} \\ 0 - \textit{man} \end{cases}$
  - X2 – age $\begin{cases} 1 - \textit{from } 18 \textit{ years old to } 29 \textit{ years old} \\ 0 - \textit{from } 50 \textit{ years old to } 60 \textit{ years old} \end{cases}$

  - X3 – background $\begin{cases} 1 - \textit{vocantional or higer education} \\ 0 - \textit{primary} \end{cases}$

- Model 2:
  - X1 – amount of saving $\begin{cases} 1 - \textit{above 20 thousand zlotys} \\ 0 - \textit{less than 20 thousand zlotys} \end{cases}$
  - X2 – amount of income $\begin{cases} 1 - \textit{enough to save} \\ 0 - \textit{insuffiicient to save} \end{cases}$
  - X3 – I spend almost all the incremental current income on additional consumption $\begin{cases} 1 - \textit{no} \\ 0 - \textit{yes} \end{cases}$
  - X4 – job satisfaction $\begin{cases} 1 - \textit{person satisfied with work} \\ 0 - \textit{person dissatisfied with work} \end{cases}$
  - X5 – salary satisfaction $\begin{cases} 1 - \textit{person staifaced from salary} \\ 0 - \textit{person not staifaced from salary} \end{cases}$
  - X6 – net monthly income $\begin{cases} 1 - \textit{more 4 thousand zlotys} \\ 0 - \textit{less than 4 thousand zlotys} \end{cases}$

- Model 3
  - X1 – the systemic introduction of a minimum pension will provide me with financial security in the future
    $\begin{cases} 1 - \textit{yes} \\ 0 - \textit{no} \end{cases}$
  - X2 – I believe that I am able to accumulate funds on my own for a higher pension in the future
    $\begin{cases} 1 - \textit{yes} \\ 0 - \textit{no} \end{cases}$
  - X3 – I have confidence in the pension system in my country
    $\begin{cases} 1 - \textit{yes} \\ 0 - \textit{no} \end{cases}$
  - X4 – I am currently reducing the level of current consumption in favor of a higher pension in the future
    $\begin{cases} 1 - \textit{yes} \\ 0 - \textit{no} \end{cases}$

4. Results

The results presented in Table 2. of the VIF index in all cases had a value of less than 2, which means a moderate correlation between the studied predictors, indicating the possibility of testing between variables. Pseudo R^2 and Count R^2 are statistical measures that assess the fit and explanatory power

of models, such as logistic regression, which lack a direct analogue to the coefficient of determination (R^2) in linear regression. Tables 3., 4., 5. present pseudo R^2 and Count R^2 results indicating a good fit of the model to the data.

Table 3. shows the estimation results of Model 1, the parameters of variables X2 and X3 were found to be statistically significant. On the basis of the reliability quotient test, the null hypothesis was rejected. The likelihood ratio test rejects the null hypothesis, indicating that the model with predictors provides a significantly better fit than a null model. Interpretation of the results of Model 1 is presented below. The probability of saving for the future by people aged 18–29 is on average 0.34 percentage points higher than that of those aged 50–60. The chance of saving for the future of people aged 18–29 is 4.41 times higher on average than that of people aged 50–60. The results support hypothesis H1. The probability of saving for the future by people with an vocational or higher education is 0.13 percentage points higher on average than that of people with an elementary education. The chance of saving for the future of those with a vocational or higher education is 1.97 times higher on average than those with primary education. The results support hypothesis H2.

Table 4. shows the estimation results of Model 2, the evaluation of parameters X1, X2, X3, X5 were statistically significant. Verification of the reliability quotient indicates that the model is correctly constructed. Interpretation of the results of Model 2 is presented below. The probability of saving for the future by those with saving above 20 thousand zlotys is higher on average by 0.25 percentage points than those with saving below 20 thousand zlotys. The chance of saving for the future of those with saving above 20 thousand zlotys is 6.29 times higher on average than those with saving below 20 thousand zlotys. The probability of saving for the future by those with a perception that their income is sufficient to save is higher by 0.22 percentage points on average than those with a perception that their income is insufficient to save. Those believing that their income is sufficient to save have odds of saving for the future that are 4.33 times higher on average than those believing that their income is insufficient. The results support hypothesis H3. The probability of saving for the future by those who do not spend incremental current income on additional consumption is higher by 0.14 percentage points on average than those who spend incremental current income on additional consumption. The chance of saving for the future of those who do not spend incremental current income on additional consumption is higher by 2.05 times on average than those who do not spend incremental current income on additional consumption. The results support hypothesis H4. The probability of saving for the future by those satisfied with their salary is higher by 0.12 percentage points on average than those not satisfied with their salary. The chance of saving for the future of those satisfied with their salary is 1.92 times higher on average than those not satisfied with their salary.

Table 5. shows the estimation results of Model 3, the variables X2 and X4 were statistically significant. The reliability quotient test indicates that the model is correctly built. Interpretation of the results of Model 3 is presented below. The probability of saving for the future by those who are able to accumulate funds for a higher pension in the future is higher on average by 0.14 percentage points than those who are not able to accumulate funds for a higher pension in the future. The chance of saving for the future by those who are able to accumulate funds for a higher pension in the future is higher by 2.09 times on average than those who are not able to accumulate funds for a higher pension in the future. The probability of saving for the future among those who reduce the level of current consumption in favor of a higher pension in the future is higher by 0.10 percentage points on average than among those who do not reduce the level of current consumption in favor of a higher pension in the future. The chance of saving for the future among those who reduce the level of current consumption in favor of a higher pension in the future is on average 1.63 times higher than among those who do not reduce the level of current consumption in favor of a higher pension in the future. The results support hypothesis H5.

The study confirmed all hypotheses, indicating that age, education, income level, not spending additional income on consumption and reducing the level of current consumption in favor of a higher pension in the future limited consumer spending are important determinants of the decision to save for the future. In addition, the analyzes highlighted the importance of awareness of the need to self-save for a higher pension, salary satisfaction, awareness of self-saving for a higher pension and the level of saving already held. These determinants also proved to be significant variables in the analyzes conducted. These results indicate that financial programs and government incentive strategies should specifically target younger age groups with lower incomes and those with limited financial education, in order to effectively increase their ability to independently financially secure their future.

5. Discussion

The determinants of saving decisions, as derived from the literature review, are reflected in the results of the survey conducted. Both income level and salary satisfaction showed a significant impact on saving decisions, as confirmed by the results of studies by Korenik (2003) and Barrafr et al. (2024). In addition, the level of education, as an important factor influencing the decision to save, was described in the studies of Lind et al. (2020), Sliwa (2024) and Barrafr et al. (2024). The results of the study also confirmed the importance of consumption patterns in saving for the future, which is consistent with the determinants identified by Frączek (2012). Trust in the pension

system, considered an important factor in saving by Wierzbicka (2018), did not show statistical significance in this study.

Modigliani and Brumberg (1954) Life Cycle Theory assumes that individuals tend to smooth consumption over the course of their lives, meaning that younger people save less and older people save more. However, the results of the analysis indicate that younger people aged 18-29 are more likely to make decisions to saving for the future than the 50-60 group. This may be due to growing financial awareness among younger generations and their concerns about the future sustainability of the pension system. At the same time, people with higher levels of education and higher incomes show a greater propensity to saving for the future. Shefrin and Thaler (1988) behavioral theory emphasizes that difficulties in self-control and the preference for current consumption over future saving lead to low saving. The conducted study found that people who do not allocate additional income to current consumption are more likely to save for the future. This means that financial self-control mechanisms are a key factor influencing saving decisions and may be effectively shaped through financial education and appropriate institutional reforms.

The economic study by Xie et al. (2023) offered a much more elaborate structure of the determinants of saving and a breakdown by age group. A division into three age groups was used, and in addition, a detailed analysis of the saving factors in each group was conducted. Despite methodological differences, both studies pointed to the key role of factors such as saving level, income and education. The important difference, however, is the scope of the explanatory variable: while this research focused on saving for the future, the study by Xie et al. (2023) analyzed, in addition to saving for the future, the aspect of saving for retirement. Moreover, the present study has an analysis of two age groups (18–29 and 50–60) to identify general factors that increase the likelihood of saving decisions. The results of this study are also consistent with the findings of the Institute of Finance (2024), which highlight the significance of factors such as age, education level, and monthly net income. Additionally, the findings of the research conducted by TNS (2014), despite the passage of time, confirmed the importance of income growth, the necessity of expenditure reduction, and the establishment of a specific saving goal as key elements in saving decisions. Although a specific saving goal was not analyzed in our study, other determinants identified by TNS (2014) were confirmed in the analyses conducted.

6. Conclusion

The current study aimed to identify the determinants influencing the decisions to saving for the future among individuals in two distinct age groups:

18–29 and 50–60 years. The analysis focused on broader save behaviors rather than strictly saving for retirement. A critical distinction given was that younger individuals often prioritize short – and medium-term goals, such as purchasing a real estate, financing a wedding, or investing in education.

Table 6. presents the verification of the study's hypotheses, which all were confirmed along with the answer to the research question. The study's results confirm that younger respondents, particularly those aged 18–29, exhibit a higher probability of saving for the future compared to those aged 50–60. This finding underscores the importance of age in shaping saving behaviors (as older individuals are nearing the end of their careers with limited opportunities for capital accumulation). The comparison between these age groups highlights the need to promote early financial planning to mitigate the risks of insufficient resources later in life. Several factors significantly influenced the probability of saving for the future. Higher education levels and greater income were both positively associated with an increased decisions to save. Furthermore, sustainable consumption behavior, such as refraining from spending incremental income on current consumption and actively reducing consumption in favor of future needs, was found to increase the probability of saving. Additionally, two other key determinants were identified: salary satisfaction and the awareness of one's ability to accumulate funds for a higher pension independently. Respondents who reported higher satisfaction with their salary were more likely to save, as were those who believed in their capacity to build their own pension resources. These findings suggest that individuals who are more confident in their financial situation and have a greater sense of control over their future financial needs are more likely to save. Level of saving also emerged as a critical factor, with those having higher saving showing a greater probability of saving for the future.

Given the demographic challenges undermining Poland, including an aging population and the increasing strain on the pension system, the need for individual saving becomes more urgent. Without systemic reforms or proactive individual saving measures, future generations may struggle with financial instability in old age.

In conclusion, the study underscores the importance of financial education and awareness in shaping saving behaviors. Programs that targeting younger generations, particularly those with lower income levels or educational attainment, should emphasize the importance of saving early, adopting sustainable consumption habits, and preparing for long-term financial needs. By focusing on these determinants, both individuals and society at large may build a more secure financial future in the face of demographic shifts. Limitations of the study include its focus on a sample from one country, which limits the generalizability of the results to other international contexts, and the use of data collected at a single point in time, which does not capture long-term changes in saving behavior. The future research may focus on cross-country comparative analyses and consideration of additional behavioral and technological factors, such as the role of FinTech in saving decisions.

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Appendix

Table 1. Structure of participation of the survey variables

Variable		Structure
Do you save for the future? (Y)	Yes (1)	67.98%
	No (0)	32.02%
Model 1		
Gender (X1)	Woman (1)	49.51%
	Man (0)	50.49%
Age (X2)	From 18 years old to 29 years old (1)	78.98%
	From 50 years old to 60 years old (0)	21.02%
Background (X3)	Vocantional or higher education (1)	22.20%
	Primary (0)	77.80%
Model 2		
Amount of saving X1	Above 20 thousand zlotys (1)	12.77%
	Less than 20 thousand zlotys (0)	87.23%

Variable		Structure
Amount of income (X2)	Enough to save (1)	16.50%
	Insufficient to save (0)	83.50%
I spend almost all the incremental current income on additional consumption (X3)	No (1)	47.35%
	Yes (0)	52.65%
Job satisfaction (X4)	Person satisfied with work (1)	36.74%
	Person disatisfied with work (0)	63.26%
Salary satisfaction (X5)	Person satisfied from salary (1)	29.67%
	Person dissatisfied with salary (0)	70.33%
Net monthly income (X6)	More than 4 thousand zlotys (1)	8.25%
	Less than 4 thousand zlotys (0)	91.75%
Model 3		
The systemic introduction of a minimum pension will provide me with financial security in the future (X1)	Yes (1)	27.31%
	No (0)	72.69%
I believe that I am able to accumulate funds on my own for a higher pension in the future (X2)	Yes (1)	29.08%
	No (0)	70.92%
I have confidence in the pension system in my country (X3)	Yes (1)	14.54%
	No (0)	85.46%
I am currently reducing the level of current consumption in favor of a higher pension in the future (X4)	Yes (1)	17.09%
	No (0)	82.91%

Source: Own preparation based on the database provided by WNEiZ UMK.

Table 2. Variance Inflation Factors (VIF)

Model 1		Model 2		Model 3	
Variable	Value VIF	Variable	Value VIF	Variable	Value VIF
X1	1.053	X1	1.122	X1	1.170
X2	1.029	X2	1.171	X2	1.097
X3	1.025	X3	1.014	X3	1.257
		X4	1.391	X4	1.183
		X5	1.395		
		X6	1.122		

Source: Own preparation GRETL program.

Table 3. Model 1 – after elimination of variable X1, final version

Variable	Coefficient	z	p-value	Marginal effect for the average	Odds ratio
const	-0.51	-2.46	0.01		
X2	1.48	6.44	0.00	0.34	4.41
X3	0.68	2.60	0.01	0.13	1.97
likelihood ratio test	49.57				
pseudo R^2 (McFadden's)	0.07				
count R^2	70.70%				

Source: Own preparation GRETL program.

Table 4. Model 2 - after elimination of variable X6, X4, final version

Variable	Coefficient	z	p-value	Marginal effect for the average	Odds ratio
const	-0.03	-0.19	0.85		
X1	1.84	3.42	0.00	0.25	6.29
X2	1.47	3.48	0.00	0.22	4.33
X3	0.72	3.48	0.00	0.14	2.05
X5	0.65	2.67	0.01	0.12	1.92
likelihood ratio test	69.96				
pseudo R^2 (McFadden's)	0.09				
count R^2	67.40%				

Source: Own preparation GRETL program.

Table 5. Model 3 – after elimination of variable X3, X1, final version

Variable	Coefficient	z	p-value	Marginal effect for the average	Odds ratio
const	0.49	4.35	0.00		
X2	0.74	3.1	0.00	0.14	2.09
X4	0.49	1.66	0.10	0.1	1.63
likelihood ratio test	16.86				
pseudo R^2 (McFadden's)	0.02				
count R^2	68.00%				

Source: Own preparation GRETL program.

Table 6. Hypothesis verification summary

Hypothesis	Confirmation of the hypothesis	Rejection of the hypothesis
H1: Age significantly influences decision to save for the future.	X	
H2: Education significantly influences decision to save for the future.	X	

H3: Income level significantly influences decision to save for the future.	X	
H4: Not spending additional income on consumption increases the probability of saving for the future life.	X	
H5: Reducing the level of current consumption in favor of a higher pension in the future increases the probability of saving for the future.	X	

Source: Own preparation.

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