# AN EMPIRICAL STUDY OF PERCEPTIONS OF INVESTMENT PLANS AS PENSION ALTERNATIVES - EVIDENCE FROM BULGARIA

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#### Abstract

Pension systems all over the world, and particularly in Europe, are under tremendous pressure. The global demographic shift toward longer life expectancy and lower fertility is the primary source of tensions on pension systems, with the traditional pay-as-you-go type becoming more questionable in its efficiency. In this study, we explore the perceptions toward this issue in Bulgaria, as well as what are the possible outcomes as results of different actions. Our survey was conducted with an online form, among respondents from Northeastern Bulgaria. We explore primarily the opinions of young people, since we expect them to be the most active and the most strongly concerned in the process. Our findings show the Bulgarian public is still relatively reluctant to newer types of investments.

**Key words:** pension systems, individual investment plans, Bulgarian economy.

**JEL:** D15, D31, E61, G51, H55.

#### Introduction

The pension systems all over the world, and particularly in Europe, are under tremendous pressure. The global demographic shift toward longer life expectancy and lower fertility is the primary source of strain. The fact that people are living longer while making the same pension contributions is a significant issue for

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pension funds. In addition, as the working population continues to decline, less and fewer people are contributing to the growing number of pensioners.

Europe is one of the most affected regions, with the more early start of the aforementioned processes. In the different European countries, there are different pension systems. The rules for acquiring a pension status are varied. The French government plans to increase the retirement age from 62 to 64. Germans will soon retire under rules setting a retirement age of 67. The UK has increased the statutory pension age from 65 to 68. To date, the Dutch have been working the longest. In order to receive a pension from the country's social security system, the applicant must be 66 years old. But most people stop working earlier and retire as early as 63. And in Germany, many people retire at 63, although the official retirement age is currently 63 years and eight months. Moreover, the retirement age is constantly being raised by a few months depending on the year of birth. Most Italians retire at about 62, although they should work until 64. The Greeks retire at about 60, and the French at about 61. In Bulgaria, eligibility for a retirement pension in 2022 is based on having reached 61 years and 10 months and 36 years and 2 months of pensionable service for women. For men, the age of 64 years and 5 months and a pensionable period of 39 years and 2 months were required. The retirement age in Bulgaria is also gradually increasing. In a number of countries, individual sectoral and collective agreements provide various exemptions. However, the actual and normal retirement ages do not differ that much. A number of countries will increase the retirement age in the coming years. In France, it is still relatively low, but even there, one has to have paid almost 42 years of contributions to be able to retire at 62 without any deductions (OECD, 2021).

No pension scheme inside the OECD can be supported only by the contributions of the insured persons. For instance, in Germany, the federal budget instead of pension contributions pays for pension benefits for going to school or university and for raising children. Many pension plans have losses as well, which must be covered by tax money.

Why is reforming the statutory pension insurance institution such a challenging issue? Is there any possibility of developing a successful pension scheme, and under what conditions is it still possible to do that? The rest of our study is as follows: the next section is a literature review, followed by representation of the methodology, results and discussion, the last section concludes.

### Literature review

Many pension systems around the world are experiencing and facing various types of difficulties. A number of countries have implemented continuous pension reforms in recent decades. Despite this fact, the fundamental problem with pension systems remains. Italy is one of them. Even though the reforms implemented in the 1990s (Amato Reform in 1992 and Dini Reform in 1995) will result in significant reductions in pension benefits, they are widely regarded as insufficient to address

the population ageing problem. Berlusconi's right-wing government introduced a new reform in 2004, which increased the retirement age in steps. From January 2008 the threshold became 60 years, from 2010 61 years and from 2014 it is now 62 years. In 2007, Prodi's centre-left government replaced this reform with a softer one that set the minimum retirement age at 58 as of 2008 (Magnani, 2011).

Germany's current public pension system is unsustainable. In the ensuing decades, increasing the contribution rate on gross salaries to the rate associated with maximum revenue will not bring about the restoration of the pension system's balance. It is unclear if expanding the contribution base to include business owners will contribute to establishing budgetary sustainability. It is also unclear what implications such a policy will have on the economy and welfare.

The amount of ultimate net income that retirees get is quantified by the socalled net replacement ratio. In France in 2020, this proportion was 74%. Thus, a worker making an average monthly wage of €3,000 would receive a pension of about €2,220. France's net replacement rate is 12 percentage points greater than the OECD average. For comparison, only 53% of the net average pay is left over for retirees in Germany (OECD, 2021).

The net replacement rate, however, may decline for many in France in the future. The rationale behind this is that by raising the minimum age, it should result in more years of employment from which a person can begin receiving a full pension before turning 67. This could particularly affect people with low incomes who usually start and work earlier.

In France, president Macron's pension reform calls for raising the basic pension for single persons to about 1,200 euros in order to offset the country's rising retirement age. It is currently 961.08 euros. One of the few nations without a minimum pension is Germany, where people with extremely low pensions are eligible to ask for an increase.

People sometimes receive an insufficient pension in various nations so they can retire earlier. Men in France retire on average at age 60.4, while women do so on average at age 60.9.

The average life expectancy for men in France is 23.5 years, while the average life expectancy for women is 27.1 years. They also receive pensions that are relatively long.

Men in Luxembourg receive pensions for 24 years on average, while women in France receive pensions for 28.4 and 27.7 years on average, respectively, trailing only Greece and Spain in this measure.

Heer and Trede (2023) provide a model that mimics the variation across cohorts, among entrepreneurs and workers, and within age groups in German entrepreneurship. They demonstrate that the inclusion of entrepreneurs neither does improve welfare nor contributes to the pension system's financial viability. The authors claime that contributions would be enough to pay for pensions if the retirement age was raised to 70 by the year 2050. The budget-balancing contribution

rate for the social security authority is not particularly sensitive to the participation of business owners in the social security system. Entrepreneurs will have lower net income as a result of social security contributions, which will lessen their incentives to invest in their company. As a result, capital in the entrepreneurial sector would fall significantly. In a general equilibrium, the average expected wellbeing of the baby will decrease by 0.7% of total consumption, and the corresponding loss in GDP will amount to 0.6%.

According to a study by German experts (Fenge and Peglow, 2018), the population structure and rising life expectancy will have the biggest effects on how Germany's pension system develops in the future. The German pension system is put under more strain as a result of these consequences. The evolution of the financial status of the pension system is positively impacted by the projected increases in net migration and fertility. These effects won't be able to offset the pressures brought on by changes in life expectancy and population structure, though. Important issues regarding the fair and equitable division of the financial burden between younger and older generations are also raised by this. The authors draw the conclusion that the structural impact, the underlying reason for upcoming financial pressure on the pension budget, is in the past. The decision to delay having children accounts for about half of the increased cost, as indicated by the rise in the contribution rate. This implies that some of this weight may be borne by recently retired individuals. These generations' legal entitlement to the current pensions cannot be sufficiently diminished. To counteract this legacy of significant implicit debt left by previous generations, other policy actions outside the pension system, such wealth taxation, may be possible.

The proponents of raising the retirement age and other "activating" welfare changes now have more negotiating leverage as a result of globalisation and neoliberalism's increased bargaining power of employers and related lobbying actors (such the financial industry). Unions have suffered at the same time, and social democrats - who in both Germany and the UK substantially changed their policies after gaining power in favour of more pro-economic, activating positions - now face a significant loss of power as a result (Hagemann and Scherger, 2016).

The data on the activity of pension insurance companies published by the Financial Supervision Commission show that the savings for the second pension of Bulgarians born after 1959 are decreasing. Nine months from the beginning of 2022, each insured person in the universal pension fund has paid an average of BGN 743.47 in contributions. As a result, the average amount in active accounts has decreased by BGN 457.66 from the New Year to the end of September (FSC, 2022). The savings of those born in Bulgaria, after 1959, for a second pension have suffered the impact of a series of crises in world markets. Six of the nine compulsory supplementary pension insurance funds in the country have negative returns for the period 30 June 2020 - 30 June 2022, according to the latest data

from the Financial Supervision Commission. The positive figures are mainly for small funds, which are not indicative of the general condition of the market.

## Methodology, results and discussion

For our experiment to explore the views of the Bulgarian public concerning the last two pillars of the pension system, we use the classical survey methodology, with the traditional tests applied in similar studies.

Our sample consists of 718 respondent records, of which 704 containing valid responses. All our respondents are Bulgarian citizens - 278 students (younger people) and 426 non-students (slightly older), originating primarily from Northeastern Bulgaria, aged 18-70 (female - 434, male - 270), having either a secondary education (403) or university degree (301). The sample corresponds in general with the profile of the active Bulgarian population. The answers were collected with an online survey form in the period of December 2022 - February 2023.

The questionnaire consists of questions about the disposition of the respondents to participate in privately owned and managed investment schemes, questions about the views about the pension system in general, about different financial markets, versions of ageing insurance etc.

We start with the question "How much do you trust in the current pension system of the state (on-the-go type)?" (a Likert-type 5-scale question). Answers demonstrate neutrality (mean 2.87, median 3), with balanced tails - the Bulgarian society seems fairly accustomed with the current pension system. Mann-Whitney (MW) tests show there is no difference (p-value 0.41) between the answers of students and the rest of the respondents, nor between the sexes (p-value 0.44).

Logically, the next question explores the personal expectations of our respondents the pension system to meet their needs in an advanced age. Again, MW tests do not discriminate between sexes (p-value 0.11), however there is a clearly expressed difference between younger and older respondents (p-value 0.048), with younger people being slightly more confident to the pay-as-you-go system (median 2, mean 2.52) compared to older people (median 3, mean 2.78). A possible explanation of the difference is the more distanced period of retirement of our younger respondents, who to a lesser extent perceive retirement as something "touchable".

Next, we ask whether our respondents are aware of the condition of the universal pension funds. In general, the respondents are divided between "yes" and "don't know where to answer". For younger people, this is the case for both sexes, for older people not (Chi-square p-value 0.036), with women being relatively more informed about these funds.

The interest in the third pillar (voluntary) of the pension system is rather scarce - younger people are more likely to make such types of investments (p-value 0.04, MW test). Similarly, the disposition to give up income now, in order to have

a pension income, is rather positive, although not very strongly expressed (no differences between sexes, nor among ages).

Respondents tend to prefer rather low-risk, safe investments, under significant differences between sexes (p-value 0, Chi-square test), with men tending stronger to prefer specifically, individually constructed portfolios and more risky and profitable investments. Also men tend to less rely to the pay-as-you-go system as the main income source in advanced age (15% vs. 22% among women), at the same time women plan less to have their own business in advanced age (17.5% vs. 28.1% among men), real estate is regarded as the main investment option for both sexes, with a bigger share for older respondents.

A special attention draws the question about the disposition to invest in special investment companies, which allow investors to participate in their profits, there is a significant difference in answers between the sexes (p-value 0.03, MW test).

In Bulgaria, there already exist various pension schemes, allowing individual customers to benefit from more detailed investment opportunities. Personal pension schemes are considered as being beneficial for Bulgarian citizens, including for their circularity aspects (Dimitrov, 2014; Dimitrov, 2017; Dimitrov, 2020; Zhelyazkova, 2020).

Individual private investment plans, materialised in various retail financial products, are subject of intensifying attention both in academics and in the financial industry in Bulgaria. As Dimitrov (2020) highlights, Bulgarian financial companies are in a process of extending their portfolios of such types of products, and research about the acceptance of such financial products in the Bulgarian public is ongoing, at the same time indicators can be misleading. Additional attention has to be paid to newer financial products, since for Bulgaria, possible bank instability could lead to fiscal instability, with detrimental consequences for the currency board agreement in the country (Todorov, 2015).

In this more general context, our research attempts to fill the gap between the widening supply of such products, on the one hand, and the still rather sparse and superficial acceptance and trust by the general public in Bulgaria.

### Conclusion

Ageing population appears to be one of the most important global problems, concerning not only the advanced economies, but also the emerging markets and other less developed economies. Current pension systems continue to be primarily of the "on-the-go" type, where active workers finance the retirement pensions. However, recent practice of the last decades clearly demonstrates pension systems all over the world struggle with persistent deficits, and need to be continuously cofinanced by the general government budgets.

Investment plans as a form of life-long savings alternative are considered to be a potentially possible solution, and modern pension systems, such as the one in the EU, are three pillar systems, where the second and the third pillars are investment

pensions, mandatory and voluntary, respectively. In both cases they are privately owned and managed investments.

However, Eastern European practice differs from the Western European one, with investments being far less popular, and volumes of life insurances and other private retirement plans lying far behind the numbers for Western Europe. One of the reasons for the weak popularity of private investment plans is the lack of information among local populations, combined with general mistrust to investment alternatives.

The goal of our study was to explore the actual situation in Bulgaria, for what concerns the attitudes towards private pension plans. Our results show that the Bulgarian public is still quite averse to investment plans as pension opportunities.

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## References

- 1. Dimitrov, S. (2020), The Average Values of Pension System Parameters in Bulgaria. In *PEPP-Regulation and Technical Standards for Market Realization Conference proceedings*, p55-64.
- 2. Dimitrov, S. (2014), Capital Pension Funds: the Changing role in South and Eastern European countries. *Economic Alternatives*, 4, p110-118.
- 3. Dimitrov, S. (2017), Readiness of Bulgaria to participate in the system of a pan-European personal pension product. *VUZF Review*, (2), 69.
- 4. Fenge, R. and Peglow, F, (2018), "Decomposition of demographic effects on the german pension system", The *Journal of the Economics of Ageing*, 12, p61-76, https://doi.org/10.1016/j.jeoa.2018.01.001.
- 5. FSC Financial Supervision Commission https://www.fsc.bg/?page\_id=41340
- 6. Hagemann, S. and Scherger, S. (2016), "Increasing pension age Inevitable or unfeasible? Analysing the ideas underlying experts' arguments in the UK and Germany", *Journal of Aging Studies*, 39, p54-65, https://doi.org/10.1016/j.jaging.2016.09.004.
- 7. Heer, B and Trede, M. (2023), "Age-specific entrepreneurship and PAYG: Public pensions in Germany", *Journal of Macroeconomics*, 75, 103488, https://doi.org/10.1016/j.jmacro.2022.103488.
- 8. Magnani, R. (2011), "A general equilibrium evaluation of the sustainability of the new pension reforms in Italy", *Research in Economics*, 65(1), p5-35. https://doi.org/10.1016/j.rie.2010.02.001.
- 9. OECD (2021), *Pensions at a Glance 2021: OECD and G20 Indicators*, OECD Publishing, Paris, https://doi.org/10.1787/ca401ebd-en.
- 10. Todorov, V. (2015), The Link between Bank Instability and Fiscal Sustainability in Bulgaria. In: *Economy in a Changing World: National*,

- Regional And Global Dimensions, Varna, Science and Economics, p343-349.
- 11. Zhelyazkova, V. (2018), Sustainable Investing Trends. Can They Help The Transition To Circular Economy?. *Economy & Business Journal*, 12(1), p88-94.
- 12. Zhelyazkova, V. (2020), The Role of Banks for the Transition to Circular Economy. In *Circular Economy-Recent Advances, New Perspectives and Applications*. IntechOpen.