ZESZYTY NAUKOWE POLITECHNIKI POZNAŃSKIEJ
Nr 90 Organizacja i Zarządzanie 2024

Jeko Nikolaev MILEV[1], Kliment ROBEV[2]

PENSION FUNDS IN BULGARIA – ARE THEY A STABILIZING FACTOR FOR THE SOCIAL SECURITY SYSTEM IN THE COUNTRY?

DOI: 10.21008/j.0239-9415.2024.090.04

The Bulgarian social security system underwent significant reforms in the late 1990s, transforming it into a three-pillar structure. The first pillar operates on a pay-as-you-go principle and comprises five distinct funds: the Pension Fund, General Disease and Maternity Fund, the Occupational Accident and Professional Disease Fund, the Unemployment Fund, and the Non-Work-Related Pension Fund. The second pillar is supplementary compulsory pension security, which operates on a fully funded principle. Pension companies manage defined contribution pension plans based on individual accounts. The third pillar is supplementary voluntary pension security, also based on a fully funded principle, allowing individuals to accumulate additional resources to finance supplementary pension benefits.

The implemented reforms aimed to address the unfavourable demographic changes expected to unfold in the coming years, which would place significant pressure on the country's pension system. The establishment of the second and third pillars was expected to enhance the financial stability of the system and increase the adequacy of pension benefits for future generations of retirees. More than two decades later, the demographic structure of the Bulgarian population continues to deteriorate, corresponding to earlier predictions. However, several factors have adversely affected the second and third pillars, preventing them from fully supporting the first pillar as intended.

The main aim of this article is to assess the reforms implemented in the Bulgaria's social security system over the years, the problems encountered, and the solutions required. The focus is on the pension system, as it absorbs the greatest part of the resources and affects the largest portion of the population. The first part of the paper describes the reforms and their expected results, while the second part analyses the current problems of the system and possible future reforms that could improve its long-term sustainability.

Keywords: Bulgarian social security system, pension funds, risks, insured individuals

[1] University of National and World Economy, Finance. ORCID: 0000-0003-0433-3761.
[2] University of National and World Economy, Finance.

1. INTRODUCTION

The social security system in Bulgaria underwent significant changes in the year 2000. After a decade of economic turbulence following the collapse of the communist regime, the parliament adopted a completely new law aimed at establishing a new foundation for social insurance in the country. Until the beginning of the new century, the social security system had all the typical features of a Soviet-type insurance system based on the Semashko[3] model: extremely centralized financing, reliance on state budget funds, state institutions, no competition, no real choice for the insured individuals, and no connection between the quality of the supplied services and the payment for them.

The implemented reform envisaged the establishment of a three-pillar system. The first pillar, based on a pay-as-you-go principle, was built upon five distinct funds: the Pension Fund, General Disease and Maternity Fund, Occupational Accident and Professional Disease Fund, Unemployment Fund, and Non-Work-Related Pension Fund. The second pillar, based on a fully funded principle, encompassed the so-called supplementary compulsory pension security. The third pillar embraced supplementary voluntary pension security. The latter had started some years earlier[4], regulated by a special law on voluntary pension schemes, but in 2003, it was normatively incorporated into the Social Security Code[5] – the act that has regulated the country's entire social security system ever since.

The basic distinguishing features of the reform can be summarized as follows:

- Introduction of a fund-based organization of the resources within the first pillar of the system.
- Establishment of a separate contribution for each of the newly structured funds.
- Formal division between the resources of the social security system and those of the state budget.
- Introduction of mandatory pension security based on capital formation (second pillar).
- Introduction of voluntary pension security[6].

By adopting a new structure for the social security system, policymakers aimed to increase the effectiveness and fairness of the system and to make insured

[3] Nikolay Semashko (1874-1949) – Soviet academic and statesman with significant contribution for the establishment of the social security system in the former Soviet Union.

[4] In 1994, by adopting certain changes into the tax laws, policymakers in Bulgaria initiated the establishment of Supplementary Voluntary Pension Security. In 1999, a law on Voluntary Pension Security was adopted which was incorporated in the Social Security Code in 2003.

[5] The Code for Compulsory Social Security, which was adopted in 1999, was renamed the Social Security Code in 2003 after incorporating the regulatory norms concerning voluntary pension insurance.

[6] Voluntary pension insurance started in Bulgaria in 1994 but can be considered an important part of the broader social security reform accomplished several years later.

individuals more satisfied with the services they receive. However, the most fundamental reforms took place in the field of pension security. Following the recommendations of the World Bank (1994), policymakers took measures to address the negative processes of population aging, which were evident throughout the decade between 1990 and 2000. The continuously deteriorating demographic structure of Bulgarian society was expected to put severe pressure on public finances in the coming years. Davis (1995, pp. 27-35) points out some of the problems of the pay-as-you-go pillars in social systems when they are confronted with a declining number of contributors and an increasing number of beneficiaries. Daneva (2016, pp. 11-33) and Manov and Gochev (2003, pp. 359-363) also stress the need for structural reform in pension schemes to allow individuals to save additional funds for their future needs. In this sense, the research papers of the OECD (2007, 2018) and the European Commission (2012) are also relevant.

Sokurenko et al. (2024) analyse the positive features of a multi-pillar pension system in countries with deteriorating demographic structures and recommend its implementation in Ukraine. The introduction of private pension funds was seen as a good opportunity for the young and as a breath of fresh air for the strained state pension system. Kirov (2010, pp. 9-27) also analyses the benefits of capital schemes, stressing their ability to effectively support pay-as-you-go structures in the context of aging population. Barembruch and Bielawska (2023), on the other hand, demonstrate that the investment results of fully funded pension schemes do not always meet public expectations. The returns achieved by pension funds in different countries in recent years (Better Finance, 2020) are not those favoured by policymakers. From this point of view, the design of the scheme and investment regulations are seen as crucial for ensuring the future satisfaction of the insured individuals.

Blake (2006, pp. 101-103) and Rocha and Vittas (2010) also show the numerous risks faced by insured individuals in a typical defined contribution (DC) scheme, both in the accumulation and disbursement periods. The success of the scheme strongly depends on realized returns net of the fees charged by the managing company. Antolin (2008) analyses other risks for defined contribution schemes stemming from the aging population and the corresponding declining yields of the financial instruments used by the pension funds. Berardi and Tebaldi (2023) highlight the importance of considering long-term trends in assessing the risk and return of retirement savings strategies and provide insights into the capital protection and cost efficiency of these strategies to raise the probability of achieving favourable results for the insured individuals. Mazure (2024) analyses the experience of Latvian pension funds and shows how volatile the returns of pension funds can be in the short term, but at the same time demonstrates that long-term returns have positive growth, averaging 4.16% over the analysed 10-year period. Melicherchik and Szucs (2023) show that the second pillar of Slovakia's pension system is advantageous for high-income groups but not so much for low-income groups, as lifetime annuity benefits may not cover the reduction of the pension benefit received from the first pillar of the system.

There is a serious academic debate about the exact design of pension funds and what type of investment regulation must be used to raise the probability of achieving adequate long-term returns for insured individuals. Within DC schemes, there are many suggestions that life-cycle investment theory must be put into place. In this sense, the research by Pandurska (2018, p. 156), Daneva (2018, pp. 157-162), and Milev (2023) are relevant. However, there are a variety of concepts concerning investment behaviour during the life of a specific person, and unfortunately, different views may have different investment implications. The complexities may rise even further when human capital is considered in addition to financial capital. Bodie, Merton, and Samuelson (1992), for example, pay attention not only to human capital per se but also to its flexibility during one's life. The possibility to work extra hours, change jobs easily, or retire whenever you want directly affect investment behaviour and the corresponding portfolio structure. In most countries in Central and Eastern European countries, strict investment rules were favoured when designing how pension fund managers choose the structure of their portfolios of assets. However, policymakers avoided elaborating specific benchmarks to evaluate the performance of pension funds. Rudolph et al. (2010) explain the importance of such measures in the context of the Global Financial Crisis of 2008. The complexity of the pension system, based on a fully funded principle, is evident in all the referenced research. The implemented structural reform in the Bulgarian social security system was expected to strengthen the system financially in the long term by raising the role of pension funds in providing additional resources for insured individuals. At the same time, these new financial institutions were predicted to contribute positively to gradually decrease the huge deficit in the state pension system.

The basic aim of this article is to assess the performance of the pension funds within the second and third pillars of Bulgaria's social security system between 2004 and 2023. For the purposes of the analysis, this study provides a detailed characterization of the regulations concerning the newly structured pillars. Then, it evaluates the realized yield in comparison with other financial products and the rate of inflation. Finally, the first results of the payout phase are analysed, followed by some recommendations for future policy adjustments. The methodology used throughout this study includes descriptive, comparative, and statistical analyses. Additionally, deductive and systematic approaches were applied.

2. THE SOCIAL SECURITY REFORM IN BULGARIA IN 2000 – REASONS AND EXPECTED RESULTS

The social security reform in Bulgaria took place after a period of severe economic crisis. The social system was just one of many that underwent significant transformation after the collapse of the communist regime. Some of the fundamental changes undertaken included the privatization of many state assets, educational reform, health insurance reform, military reform, etc. The social security system is one of the most important systems since it affects many people in the country and absorbs huge resources collected mostly via general taxation and redistributed through the state budget.

The period between 1990 and 2000 was marked by serious economic challenges during which many Bulgarians (mostly young and educated individuals) left the country, which negatively impacted the financial stability of all social systems. During this time, unemployment rates reached unprecedented levels, primarily due to the closure of many inefficient state-owned factories and enterprises. The governments at that time tried to solve some of the economic problems through the social system, generously allowing many individuals to retire under special conditions or to receive extended unemployment benefits. This significantly increased the financial burden on all social systems, and the state budget deficit grew almost uncontrollably. As a result, in 1997, the inflation rate rose to 647%, which finally forced the newly elected democratic government to implement painful but long-needed reforms in many economic sectors, including the social system.

The social security system was extremely centralized, financed exclusively by state budget funds, and for many decades closely followed the Soviet model. The basic idea behind the reform was to more closely link the paid security contributions with the received benefits. To achieve this goal, the government proposed a separate contribution for each of the newly structured funds, which covered all of the following insurance cases: temporary incapacity to work, temporary reduced working capacity, motherhood, unemployment, old age, and death. Five funds were established: the Pension Fund, the General Disease and Maternity Fund, the Professional Disease and Occupational Accident Fund, the Unemployment Fund, and the Non-Work-Related Pension Fund. Among them, only the last-mentioned fund was left without a separate social insurance contribution and was instead financed by state budget funds.

However, the most dramatic reforms were undertaken in pension security. In the late 1990s, it was obvious that the number of retired individuals would grow significantly in the coming decades, and it was rightly expected that the funds needed to pay pension benefits would put severe pressure not only on the budget of the newly formed Pension Fund but also on public finances as a whole. Following the recommendations of the World Bank, Bulgarian policymakers implemented a serious structural reform in pension security similar to those in many other Central and Eastern European countries7. The second and third pillars of old-age security were introduced, allowing insured individuals to save additional funds and receive supplementary pension benefits. The reform aimed address negative demographic trends and to raise the sustainability of the pension system in the medium and long

[7] Similar reforms were made in Hungary in 1998, Poland in 1999, Croatia in 2002, and the Baltic countries, among others.

term. Although fully funded pillars are not immune to the negative impact of population aging (Davis, 1995; Antolin, 2008), they have a significant advantage over the pay-as-you-go ones. By investing abroad and structuring globally diversified portfolios, pension funds can mitigate the effects of the country's deteriorating demographic structure.

This is expected to be even more true in a country like Bulgaria, whose domestic capital market is small and cannot meet the investment needs of the rapidly growing pension funds. Table 1 shows the portfolio structure of the biggest pension funds in the country, confirming the expectation that a significant part of the managed assets is invested in non-domestic instruments. Thus, all other things being equal, by diversifying assets with instruments issued in countries with more favourable demographic structures, pension funds could effectively support the pay-as-you-go part of the system in an environment of demographic crisis.

Table 1. Distribution of assets between foreign and domestic assets of the four biggest universal pension funds in Bulgaria as of 30.09.2024

N:	Universal pension fund	Foreign assets (%)	Domestic assets (%)	Total (%)
1	Doverie	93.54	6.46	100.00
2	Allianz Bulgaria	79.92	20.08	100.00
3	DSK Rodina	81.43	18.57	100.00
4	OBB	73.99	26.01	100.00

Source: own calculations.

By introducing mandatory pension schemes based on capital formation, the government was also trying to incentivize individuals to pay social security contributions on their real wages, thereby gradually reducing the significant grey sector in the economy at that time[8]. As a direct effect of the increased collection of taxes, it was expected to improve the financial condition of the state pension system. Within the so-called supplementary compulsory pension schemes, the reform envisaged the establishment of two different types of funds – universal and professional. The universal pension funds were designed for all persons born after December 31, 1959, while the professional pension funds were intended for those working in hazardous environments, such as miners, metallurgists, and public transport drivers. The initial rules required that all individuals who met the eligibility criteria for second pillar insurance participate in the scheme. However, a significant change in pension legislation was adopted in 2015, allowing insured individuals to opt out of the second pillar. The basic motive behind this reform was to take care of those who were not able to accumulate enough resources to finance a pension benefit. The new

[8] The grey sector in the economy in the late 1990's was estimated to be around 30%.

legislation gave the option of transferring resources between the universal pension funds and the state pension system many times until reaching five years before the legal retirement age in the country. Regarding the possibility of changing the insurance between the professional pension funds and the state pension system, the new rules allowed that option only once.

In 2021, Bulgarian universal pension funds entered a new stage of development – the period of pension benefits payout phase. The first insured individuals to be granted pension payments were women born at the beginning of the 1960s. There are two specific aspects of the insurance of these individuals – their coverage period in the second pillar is relatively short, 20 years, provided they have contributed regularly without gaps between 2002 and 2021. This is roughly half of the insurance period expected for individuals who entered the labour market in 2002, the first year of the reform. Secondly, these people have another 20-year period of paying contributions only to the state pension system. These two factors are quite important because they significantly affect the amount accumulated in individual accounts and the expected pension benefits. The discussions and proposals for the exact design of the distribution phase of the universal pension funds were quite intense. It is worth mentioning that the Bulgarian regulation of the pay-out stage is unique among European countries. It is the product of highly coordinated efforts among different stakeholders, including the regulator, the professional community of the pension funds, trade unions, and representative organizations of the employers. The adopted rules envisage the payment of three different types of benefits: an annuity without additional conditions, an annuity with a guaranteed period of payment, and an annuity with a deferred payment of part of the accumulated resources. There are important differences among the three types of benefits (Milev, 2022), but the most significant one concerns the inheritance possibilities in case of a pensioner's death. The first type of annuity does not offer the option of receiving the resources after the pensioner's death. This is the classic type of pension benefit intended to cover longevity risk at a cost that mostly affects the successors of the deceased person. The other two types of pension benefits, if chosen by the insured individual, include a scenario of paying amounts to the relatives, provided that the pensioner dies within the period of guaranteed payment or during the time of deferred payment of part of the accumulated resources. After that, these two types of pension benefits are transformed into the classic type of annuity. An important condition to be granted annuity payment is to have accumulated enough resources to finance at least 15% of the statutory minimum amount of the pension benefit. Individuals who were not able to accrue such an amount must receive their fund either as a lump sum payment or as a deferred payment. For the first three years of development of the pay-out phase, at least three basic problems emerged. First, the accrued resources for the first cohort of pensioners with individual accounts are relatively small. For most retired individuals, they are not enough to finance at least 15% of the statutory minimum pension benefit. That is why the number of insured individuals receiving deferred payments highly exceeds the number of those receiving annuity payments, as demonstrated in table 2.

Table 2. Insured individuals granted with annuity payments and benefits as periodic payments towards the end of 2023

Type of pension benefit	Number of individuals
Annuity payment	2 632
Periodic payments	18 024

Source: www.fsc.bg (Financial Supervision Commission).

Second, the minimum amount of the state pension benefit was significantly increased in the last three years, mostly on populist grounds due to the highly unstable political environment in the country. Once again, it was confirmed that the most important risk for the long-term stability of the pension system is the political risk to which it is exposed. Third, the yield realized by the pension funds in the last decade is not adequate and does not satisfy the needs of the insured individuals. While it is reasonably expected that the first two problems may fade out gradually in the coming years due to natural demographic and economic processes[9], the problem with the realized yield needs a more detailed analysis and potential new changes in the pension legislation.

3. THE REALIZED YIELD BY BULGARIAN PENSION FUNDS FOR THE PERIOD: 2004-2023 – CHALLENGES AND PERSPECTIVE REFORMS

Bulgarian second and third pillar pension funds have been operating for more than 20 years. Over such a long period, it is possible to identify some of the failings of the current legislation concerning the way pension funds invest and to outline the path for some future reforms in this field. This is even more important in the context of some reversal reforms that took place in countries like Hungary and Poland, where the role of the second pillar pension funds was significantly decreased. In the early 2000s, Bulgarian legislators adopted very strict investment rules for both the second and third pillar pension funds. There were serious reasons for such a regulatory framework, such as the lack of tradition in pension security based on a fully funded principle, a very poor and undeveloped stock market, complicated access to

[9] For new retirees, the period of contributing to the second pillar pension funds will increase with each successive year, which means that, all other things being equal, the accrued amount in their individual accounts will be greater than that of the first cohort of pensioners. At the same time, the possibility for future governments to increase state pension benefits at the growth rate seen in the last two years is expected to diminish since the base level will be much higher.

global stock exchanges, and a bad record with some financial pyramids that evolved in Bulgarian society in the mid-1990s. Therefore, during the initial years of their existence, pension funds in the country were required to invest predominantly in government securities issued by the Bulgarian government[10]. This normative rule was abandoned in 2006, mostly due to the expected accession of Bulgaria to the European Union and the implementation of some European regulations that forbid such privileged access of the government to the funds of the insured individuals. Following Bulgaria's accession to the European Union in 2007, Bulgarian pension funds were permitted to invest much more heavily in instruments denominated in euros and issued by EU-based governments and corporations. Thus, investment regulations were seriously liberalized during these early years. However, in the period after that, changes in the investment regulations were slight and insignificant.

In the following section, an analysis of the investment performance of the pension funds was made for the period between 1.07.2004 and 31.12.2023. The initial date was chosen for practical reasons – this is the date of introduction of the so-called pension units, which allow the observation of the value of pension funds' assets on a daily basis. There is data concerning the yield realized by the pension funds for the years before 2004, but it is not as transparent and comparable with the published statistics after that. The whole period is distinguished by two crises – the Global Financial Crisis of 2008 and the pandemic crisis of 2020-2022. After the second crisis, the inflation rate rose to unprecedented levels for the last two decades, which resulted in a significant increase in the interest rates by the major central banks (Fed, ECB, and some others). To accomplish a comprehensive analysis, a comparison is made between the realized yield by the pension funds in the country, the domestic inflation rate, the interest rate on ordinary bank deposits in Bulgaria, and the performance of some stock exchange indexes (Sofix index as representative of the local capital market, S&P 500, DAX, FTSE 100, and EURO Stoxx 500 as representatives of the global equity market).

Maybe the most important aim of pension security based on capital formation is to maintain the purchasing power of individuals' savings. All pension funds in the country have explicitly stated in their investment policies the goal of achieving a yield that exceeds the inflation rate in the long term. That's why the comparison between the realized yield and the inflation rate is of utmost importance when assessing the efficiency of the supplementary pension security. The economic complications caused by the COVID crisis during the period between 2020 and 2022 necessitated the implementation of numerous fiscal and monetary stimuli on a global scale. Central banks maintained interest rates at record-low levels, increasing their quantitative easing measures. This was followed by the war in Ukraine, which put

[10] The initial requirement for investments in domestic government securities was at least 50% of the assets for the second pillar pension funds and a minimum of 30% of the assets for the third pillar funds.

further significant pressure on inflation in Europe. Bulgaria was one of the leading countries in the EU in this regard. The pandemic, geopolitical tensions, and the lack of political stability had a substantial impact on inflationary processes.

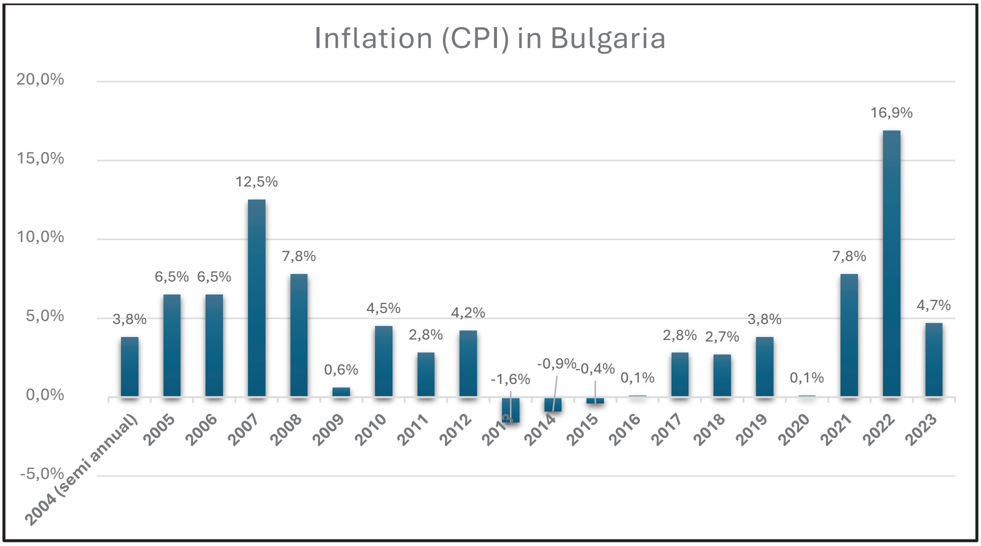


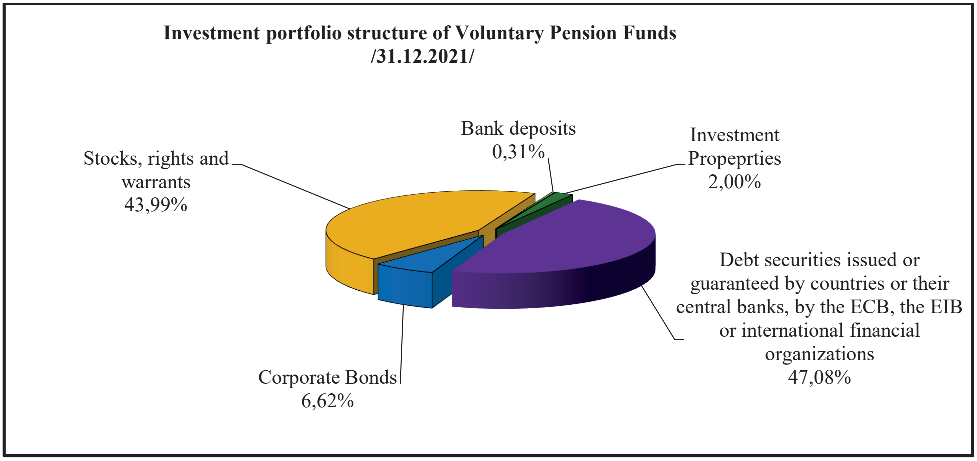
Fig. 1. Inflation data in Bulgaria for the period 30.06.2004-29.12.2023
(National Statistical Institute (NSI) – www.nsi.bg)

Figure 1 demonstrates the sharp increase in the inflation rate in the last few years. It is undoubtedly clear that 2022 was devastating for the pension fund industry in terms of realized real yield. From an analytical point of view, it is important to analyse the period until 2021 and after that to see the investment performance in normal times and then after the observed inflation shock. The data in table 3 show that for the period between 2004 and 2021, both universal and voluntary pension funds beat the inflation rate in the country. The performance of voluntary pension funds is much better than that of universal pension funds, which could easily be attributed to the more aggressive portfolio structure of the third pillar pension funds.

Table 3. Investment performance of voluntary pension funds and universal pension funds for the period 2004-2021 in Bulgaria

Indicator	Voluntary pension funds (VOLIDEX)	Universal pension funds (UNIDEX)
Nominal return	101.38%	86.64%
Inflation rate	84.70%	84.70%
Real return	9.03%	1.05%

Source: calculations.



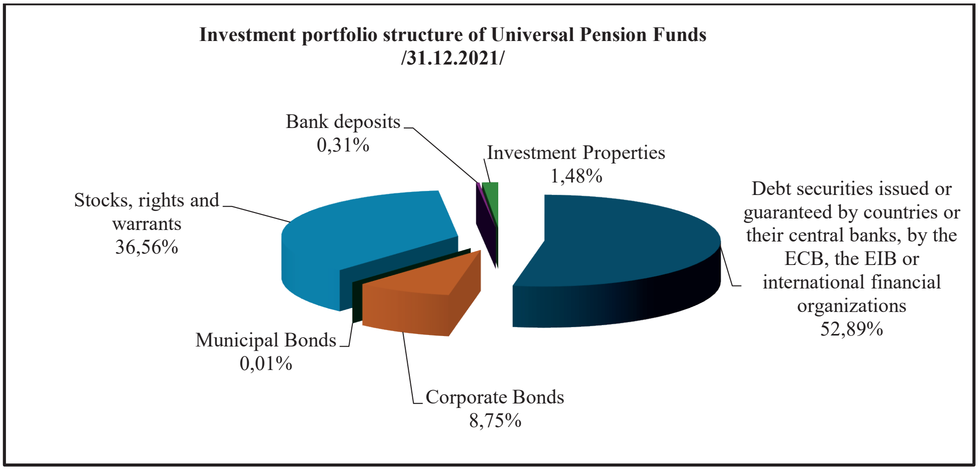


Fig. 2. Investment portfolio structure of Voluntary and Universal Pension Funds in 2021 (www.fsc.bg, Financial Supervision Commission)

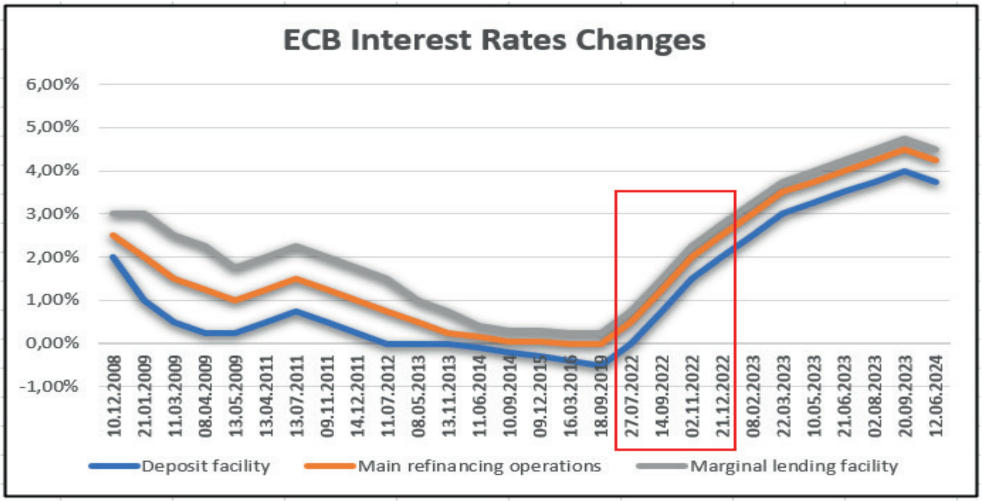
The performance of the pension funds in Bulgaria for the period until 2021 confirms the economic theory that in the long term, variable income instruments bring higher yields and are more suitable investment vehicles for long-term investors than fixed income securities, whose yield is not volatile but comparatively low and, in the long term, lags behind the inflation rate. It is worth noting that investment in ordinary bank deposits for the same period has brought yields somewhere between the performances of the voluntary and universal pension funds. However, this positive result is attributed mostly to the early years of the observed period when interest rates offered by Bulgarian banks were between 5% and 7%. After 2014, the interest rates dropped to almost zero and definitely were not an alternative to both universal and voluntary pension funds. The following table 4 demonstrates the return on an ordinary bank deposit in Bulgaria for the period between 2004 and 2021.

Table 4. Real return on an ordinary bank deposit for the period between 2004-2021

Indicator	Return on a bank deposit
Nominal return	91.70%
Inflation rate	84.70%
Real return	3.79%

Source: own calculations.

In 2022, the inflation rate surged dramatically, not only in Bulgaria but also worldwide. The major central banks reacted by reversing the policy of “easy money” to quantitative tightening. As a result, the interest rates increased sharply over a period of a couple of months, which negatively affected the values of both variable and fixed income instruments. Figure 3 shows the reversed monetary policy trend started in 2022 by the European Central Bank and the Federal Reserve.



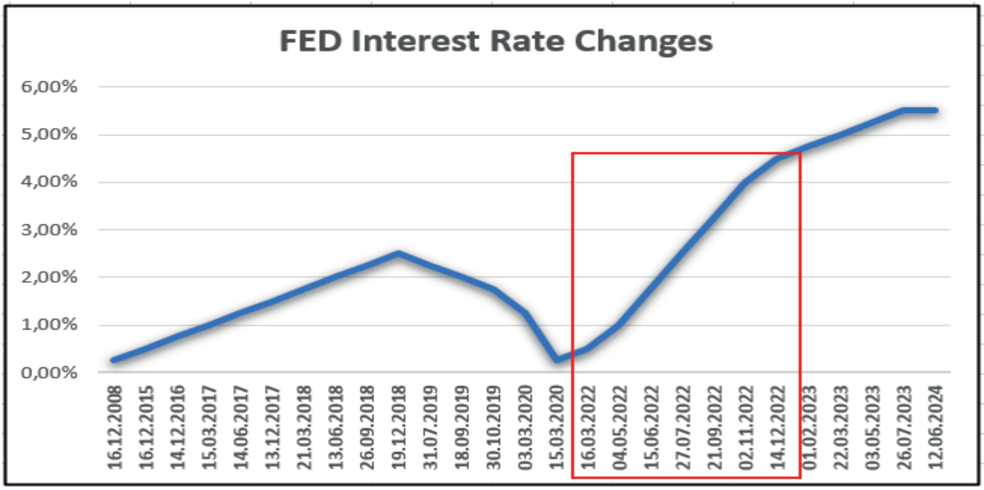


Fig. 3. European Central Bank and Federal Reserve interest rate changes from December 2008 until June 2024 (European Central Bank; Federal Reserve)

The losses for the pension industry in 2022 experienced double-digit losses in both universal and voluntary pension funds, as shown in table 5.

Table 5. Investment performance of voluntary and universal pension funds in 2022 in Bulgaria

Indicator	Voluntary pension funds (VOLIDEX)	Universal pension funds (UNIDEX)
Nominal return	–8.8%	–10.60%
Inflation rate	16.9%	16.9%
Real return	–22.0%	–23.52%

Source: own calculations.

What must be underlined and remembered by policymakers in the country is that fixed income securities, including investment-grade government bonds, cannot be considered safe instruments when the adopted approach of their evaluation is "mark to market" on a daily basis. The sharp increase in reference interest rates by the central banks adversely affected the prices of all fixed income securities. The pension fund industry, following the adopted rules of evaluating portfolio assets, was compelled to take into account the new price level of all government bonds. The "mark to market" approach of evaluating fixed income securities was revealed as unsuitable for pension funds that were not forced to sell their bond holdings and had the comfort to keep them until the date of maturity. In this way, the reported losses in 2022 have seriously hit only those insured individuals whose retirement is expected in the next few years. They would have no time to wait for the recovery of the value of their savings. This is also an important lesson for the currently discussed multifund system and the way it is expected to regulate the different risk profile portfolios.

The negative results reported in 2022 affected the performance of the pension fund industry for the whole period between 2004 and 2023, as shown in table 6. Although the last year was positive for both the universal and voluntary pension funds, they will definitely need a few more years to compensate for the losses in 2022 and to once again realize returns that exceed the inflation rate.

Table 6. Investment performance of voluntary pension funds, universal pension funds, and bank deposits for the period 2004-2023 in Bulgaria

Indicator	Voluntary pension funds (VOLIDEX)	Universal pension funds (UNIDEX)	Bank deposits
Nominal return	106.38%	84.11%	92%
Inflation rate	126.00%	126.00%	126.00%
Real return	–8.68%	–18.54%	–15.04%

Source: own calculations.

The pension fund industry in Bulgaria continues to look for the right balance among the different asset classes that may best suit all insured individuals. Pension companies are currently allowed to manage only one portfolio of assets for each of the pension funds they operate. It is becoming increasingly difficult to structure portfolios that could protect the interests of both those individuals who are entering the labour market now and those whose retirement is in the next few years. In this sense, it is quite important to see the performance of some equity indexes (tab. 7) for the same period, because there are many propositions that pension funds must be allowed to structure more aggressive portfolios of assets to raise the chance of realizing yields that exceed the inflation rate.

Table 7. Nominal return of some major stock indexes for the period 2004-2023

Equity index	Nominal return for the period 30.06.2004-31.12.2023
S&P 500	318.10%
DAX	313.34%
EURO STOXX 50	94.52%
FTSE100	73.23%
SOFIX	51.00%

Source: https://finance.yahoo.com; www.bse-sofia.bg; www.investing.com.

The table above shows that for the period between 2004 and 2023, the return on some of the world's leading equity indexes was much higher than the yield realized by the Bulgarian pension funds. However, for the time analysed, the domestic index Sofix lags significantly behind the returns achieved by both the universal and voluntary pension funds. In this sense, the renewed discussion in Bulgaria about the introduction of a multifund system that allows pension companies to structure and manage several different portfolios with different risk profiles can be seen as a positive development. As of May 2024, the Association of Pension Companies, together with the Financial Supervision Commission, has started discussions and is preparing a concept for the introduction of multifunds. If finalized and approved by the parliament, the change is expected to have a significant impact on Bulgaria's pension system.

In recent years, it has become obvious that the second and third pillars need a change that would recognize the different types of risk faced by the various groups of insured individuals. Within the defined contribution pension schemes, future retirees bear the investment risk during the entire accumulation phase. It is quite important to find and use asset classes that would maximize the return for the whole period of saving. For a developing economy such as Bulgaria, which is expected to grow at a faster rate in the coming years, the inflation rate could adversely affect the accumulated amounts in the long term. By investing predominantly in non-volatile assets with fixed returns, pension managers could seriously undermine the realized yield for the whole period of saving. On the other hand, pension companies must be allowed to efficiently protect those individuals approaching retirement. Most of them cannot afford to keep a portfolio of assets whose value may drop significantly, wiping out several years of accumulation just prior to retirement.

Life-cycle investment has positive features investigated in many papers over the last years (Bodie et al., 2007; Munnell, 2007; Antolin et al., 2009). It could take different forms, and a multifund system is just one of them. It has been introduced in a number of countries[11] in Central and Eastern Europe and Latin America and has proved effective (Milev, 2023) in many cases. Its introduction into Bulgarian practice could raise the adequacy of the pension payments and strengthen the long-term sustainability of the pension system. However, to have a positive final effect, the exact design is crucial. This should be a focus of future research.

4. CONCLUSIONS

Bulgarian pension funds were designed to be an important stabilizing factor for the country's entire social security system. The fully funded component in a pension system predominantly built on a pay-as-you-go principle was expected to raise its long-term sustainability and robustness. However, over the last 20 years, a number of problems concerning the structure and management of the pension funds have arisen and become a topic for heated discussions. The start of the pay-out phase proved the expectation that the accruals of the first retirees would not be sufficient to finance life-long pension benefits. As a result, pension funds cannot currently be considered as a stabilizing factor for the pension system.

There are some objective factors for this situation, such as a shorter period of accumulation for the first retirees, small contribution rates, especially during the first years, extremely low interest rates for almost half of the insurable period, and very low insurable income for many of the individuals subject to supplementary compulsory pension security. However, there are certain subjective factors as well, which must be addressed effectively and eliminated as soon as possible to raise the chances of the currently insured individuals to accumulate adequate funds in their individual accounts. Such subjective factors are as follows: very conservative investment behaviour assumed by a part of the pension companies, comparatively high fees charged on the resources accumulated in individual accounts, and low realized yield for the entire investment period.

[11] Estonia (2002), Slovakia (2005), Latvia (2003), Lithuania (2004), Croatia (2002), Chile (2002), Mexico (2004), Peru (2006).

The rate of return has always been considered one of the most important components for the insured individuals when the system is based on defined contributions. The past years showed that people face different types of risks during the insurable period. The structure of the managed asset portfolios must suit the interests of the insured individuals at different stages of their lives. By managing just one portfolio of assets, pension companies cannot fulfil this aim. They need more flexibility in their investment decisions to keep the right balance between different types of insured individuals. The level of satisfaction among them is crucial to preserve the fully funded component in the system in the long term and to let it play a stabilizing role in the whole pension system.

Acknowledgements: This work was financially supported by the UNWE research programme (Research Grant No. 13/2024/A).

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FUNDUSZE EMERYTALNE W BUŁGARII – CZY SĄ CZYNNIKIEM STABILIZUJĄCYM SYSTEM ZABEZPIECZENIA SPOŁECZNEGO W KRAJU?

Streszczenie

Bułgarski system zabezpieczenia społecznego przeszedł znaczące reformy pod koniec lat 90. i został przekształcony w strukturę trójfilarową. Wdrożone reformy miały na celu zaradzenie niekorzystnym zmianom demograficznym, które miały nastąpić w najbliższych latach, co wywarłoby poważną presję na krajowy system emerytalny. Ustanowienie drugiego i trzeciego filaru miało ustabilizować finansowo system i zwiększyć adekwatność świadczeń emerytalnych dla przyszłych pokoleń emerytów. Ponad dwie dekady później struktura demograficzna bułgarskiej populacji nadal się pogarsza, zgodnie z wcześniejszymi przewidywaniami. Kilka czynników negatywnie wpłynęło na drugi i trzeci filar, uniemożliwiając im pełne wsparcie pierwszego poziomu. Głównym celem niniejszego artykułu jest ocena reform przeprowadzonych w bułgarskim systemie zabezpieczenia społecznego na przestrzeni lat, napotkanych problemów i wymaganych rozwiązań. Skupiono się na systemie emerytalnym, ponieważ pochłania on najwięcej środków i dotyczy największej części populacji. W pierwszej części artykułu opisano reformy i ich oczekiwane rezultaty, w drugiej – zanalizowano obecne problemy systemu i możliwe przyszłe reformy, które mogłyby zwiększyć stabilność systemu emerytalnego w dłuższej perspektywie.

Słowa kluczowe: ryzyko, fundusze emerytalne, ubezpieczeni, bułgarski system zabezpieczenia społecznego