

THE SOCIO-ECONOMIC POTENTIAL OF VOLUNTARY PENSION INSURANCE IN BULGARIA

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Abstract: The aim of the study is to characterise the overall state and outline the development opportunities of voluntary pension insurance in Bulgaria. Research publications and officially disclosed empirical data for the period 2002 – 2024 have been used. The study examines changes in the number of insured individuals, the amount of the insurance contribution and the accumulated funds, the achieved returns, the share of net assets relative to GDP and to the total amount of household deposits, as well as the growth rates of managed assets and the amount of the insurance contribution compared to the growth rates of GDP, the average insurance income, and the amount of household deposits. It is concluded that voluntary pension insurance has not managed to provoke the desired widespread interest. The possible reasons for this are identified, and suggestions for its future development are outlined.

Keywords: voluntary pension insurance, voluntary pension fund, professional scheme, pan-European personal pension product

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Introduction

Achieving and maintaining the desired standard and quality of life after retirement is a problem of socio-economic development in every modern society, characterised by its permanent relevance and exceptional importance. Efforts in this regard are often decisive in terms of the social policy being implemented, giving a distinctive character to organised social protection and naturally corresponding with the proclaimed intentions to achieve adequacy, security and sustainability of multi-pillar national pension systems.

Voluntary pension insurance is one of the main elements of modern pension systems. Its functioning is associated with the systematic accumulation of resources from insurance contributions (installments) and the professional management of the accumulated funds with the aim of preserving and increasing their nominal and real value over time, thereby guaranteeing the subsequent payment of due benefits upon the occurrence of a covered social insurance risk and the fulfillment of the conditions and prerequisites provided by law or contract. From a socio-economic perspective, expectations are linked to the transformation of a portion of the undesignated pool of the insurance fund into a designated one, which would also enable the desired increase in the overall level of income compensation upon retirement.

The aim of the present study is to characterise the overall state and outline the development opportunities of voluntary pension insurance in Bulgaria, considering its general organisational framework, the dynamics of selected specific activity indicators and the systemic interaction within the multi-pillar pension insurance model.

1. Problem Statement

The organisation of insurance relationships and pension payments justifiably provokes research interest, and certain aspects of it often fall within the subject area of numerous studies with both theoretical-methodological and practical-applied characteristics.

Iv. Katsarov, summarising scientific research and methodological materials from the International Labour Organization, acknowledges the necessity of detailed study and valuation of pensioners' needs, while also

indicating 75% as the recommended target level of income compensation upon retirement (Katsarov, 1967).

Zdr. Georgiev links the emergence, development and establishment of organised forms of social security as elements of social protection systems with the gradual processes of segregating the insurance fund through the prior assigning of strictly targeted purposes to a specific portion of the generated product. He also comments on the significance of compulsory and voluntary aspects in their roles as fundamental principles of social insurance protection. According to him, they, without altering the essential characteristics and the general functioning scheme of social insurance, directly relate to and determine the specific organisational features of the formation and distribution of the respective portions of the segregated insurance fund (Georgiev & Yordanov, 2001).

Y. Hristoskov, commenting on the financial foundations of social security, highlights the capital-funded approach as the primary possibility for planning and covering the expenses of the insurance system. According to him, the characteristics of this approach are associated with the accumulation and capitalisation of current insurance contributions and the income from their investment, aiming to guarantee the undertaken commitment for future payments (Hristoskov, 2010).

N. Pavlov, in the context of liberalisation of insurance relationships, adopts as fundamental and unconditional the direct correlation between personal insurance contribution (as a comprehensive equivalent of the periods of coverage and the total amount of insurance installments) and the individual pension amount. According to him, supplementary insurance, as an activity involving the collection, financial management and expenditure of funds for making social payments under conditions stipulated by law or contract, expands the options for offering competitive social protection programmes in the social insurance market (Pavlov, 1998).

St. Kirov, commenting on the sustainable development of private pension schemes, points out that supplementary pension insurance is a source of a significant portion (reaching up to about 30-35% in certain countries) of pensioners' total income, which, in turn, generates certain expectations and provokes justified consumer interest, especially among individuals with high incomes (Kirov, 2010).

The development and functioning of capital pension schemes, within the context of demographic challenges and deepening issues of public pension insurance and public finances, are one of the strategic goals of the European Commission aimed at building adequate, secure and sustainable

pension systems (Eur-lex, 2010) with a lasting capacity to provide adequate, secure and sustainable pensions (Europa, 2012,), serving as a basis for the realisation of the European Pillar of Social Rights, at least in the "Income and Pensions in Old Age" section (Eur-lex, 2017).

In scientific literature, prevailing and shared views on the expected positive effects of the development of capital pension schemes are related to their favourable impact on employment and the stability of labour markets, the development of financial markets, and the achievement of sustained economic growth – opinions verified, in various aspects and to varying degrees, based on thorough theoretical analyses and empirical studies by Ashok Thomas and Luca Spataro (Thomas & Spataro, 2014), Taejin Han, Kyoung Gook Park and Dariusz Stańko (Han et al., 2018), Michiel Bijlsma, Casper van Ewijk and Ferry Haaijen (Bijlsma et al., 2014) etc. It should not be overlooked that the discrepancy between inflated expectations and achieved results justifies processes and policies that limit the role of capital pension schemes (Polakowski & Hagemeyer, 2018).

2. Data and methodology

The object of the study is the coordinated interaction within the Bulgarian multi-pillar pension insurance system, while the subject is the organisational and economic characteristics of voluntary pension insurance (VPI). The study is based on theoretical and methodological research as well as empirical data for the period 2002 – 2024, officially published by the Financial Supervision Commission (FSC), the National Social Security Institute (NSSI), the National Statistical Institute (NSI) and the Bulgarian National Bank (BNB). The study is in line with the regulatory framework as of 1 June, 2024. Traditional methods of scientific research have been used.

The characterisation of the state of VPI in each of its varieties is made based on key indicators reflecting the characteristics of the activity – the number of insured persons, the size of net assets, the amount of income from insurance contributions, the amount of accumulations on individual accounts of insured persons, the number of insurance payments made and the achieved annual return.

The evaluation of the level of development achieved in VPI is based on several indicators, identified during the research: the proportion of individuals insured in VPI compared to those in the state social security system (SSS), the relative monthly contribution inflow rate for VPI (as a percentage)

compared to the monthly contribution income for the country, the comparison of asset management yields achieved by VPI funds against the yields achieved in supplementary mandatory pension insurance (SMPI) in universal (UPF) and professional (occupational) (PPF) pension funds, the share of net assets of VPI funds (as a percentage) compared to the gross domestic product (GDP), the size of household deposits and deposits of non-profit institutions serving households (NPISH) and the comparison of the average growth rates of net assets of VPI funds, household deposits, NPISH deposits, GDP, contribution income for the country and monthly contribution inflows to VPI funds.

3. Research findings

The organisational and economic framework of voluntary pension insurance is contained in Part Three of the Social Insurance Code (SIC). It is implemented through the participation of insured individuals in supplementary voluntary pension insurance funds⁴, in supplementary voluntary pension insurance funds under professional schemes⁵ and in a voluntary pension fund for a pan-European personal pension product (PEPP), as well as through contracts with a PEPP provider⁶. The insurance is based on the capital-funded principle of financing, following the logic of defined contribution schemes and the personalisation of accumulations into individual accounts. The funds in the supplementary voluntary pension insurance schemes are managed by licensed pension insurance companies, with the care of a prudent trader, adhering to the principles of quality, reliability, liquidity, profitability and diversification in the interest of the insured individuals. The process of managing the accumulations must comply with the legal requirements for structuring investments, without being subject to requirements for achieving and distributing a minimum return or guaranteeing the gross total amount of the social insurance contributions made.

According to the FSC data, in 2024, ten pension insurance companies managing the VPF carry out supplementary voluntary pension insurance activities (FSC, 2024). The expectations are related to increasing the overall

⁴ Hereinafter referred to in the text as the voluntary pension fund (VPF).

⁵ Hereinafter referred to in the text as the voluntary pension fund under professional schemes (VPFPS).

⁶ At present, activities related to additional voluntary pension insurance under PEPP are not being carried out in the country.

level of income compensation upon retirement by making payments that supplement those from the public and supplementary mandatory pension insurance. Indicative of the state of voluntary pension insurance in Bulgaria and the results achieved are the statistics officially released by the Financial Supervision Commission, presented in Table 1:

- The total number of insured persons in the VPF at the end of 2023 is 642,459 persons compared to 484,791 persons in 2002, with the total increase being 32.5%. During the period, changes were observed in the structure of the insured persons depending on the type of contract under which their insurance is provided. The number of people insured through an employer contract decreased from 470,495 in the period from 2010 to 2023 to 413,011, but it continues to significantly exceed the number of people insured through personal contributions, which increased to 321,844 at the end of 2023 compared to 247,738 in 2010. The number of individuals insured through contracts with other insurance institution remained extremely small throughout the entire period, decreasing to 1,005 individuals at the end of 2023 compared to 1,515 in 2010.

- The size of the net assets of the supplementary voluntary pension funds increases by more than 7 times and reaches 1,417 832 thousand BGN at the end of 2023 compared to 195 519 thousand BGN in 2002.

- The average amount of accumulated funds per insured person during the period increases by over 5 times and reaches 2, 206.88 BGN at the end of 2023 compared to 403.31 BGN in 2002.

- The average monthly income from insurance contributions per insured person increased more than 9 times during the period and reached BGN 103.70 at the end of 2023, compared to BGN 11.38 in 2002.

- The total number of pensioners in the Voluntary Pension Funds decreases from 2,092 in 2010 to 873 at the end of 2023. In the total number of individuals eligible for payment at the end of 2023, the largest share is held by retirees with personal old-age pensions – 71.7% (626 individuals, 399 of whom receive lifetime payments and 227 receive fixed-term payments), while the share of individuals eligible for payment as heirs is 27.7% (242 individuals, 240 of whom receive lifetime payments and 2 individuals receive fixed-term payments). There are 6 individuals eligible for personal disability pensions, all of whom receive lifetime payments.

- The achieved average return of the VPF during the period 2002 – 2023 varies according to the trends and dynamics of economic development from 9.44% in 2002 to -6.44% in 2022, with a recorded level of return of 7.6% in 2023.

Table 1.
State of Voluntary Pension Insurance in Bulgaria during the Period 2002–2023

Indicators/year (as of 31.12.)	2002	2005	2010	2015	2019	2020	2021	2022	2023
Number of insured persons* – total, including:	484,791	549,851	597,968	597,683	640,105	645,569	646,027	643,582	642,459
- Insured persons under personal contribution contracts	-	-	247,738	277,095	316,481	322,914	324,001	325,481	321,844
- Insured persons under contracts with an employer	-	-	470,495	433,182	416,612	413,360	414,106	413,031	413,011
- Insured persons under contracts with another insurer	-	-	1,515	1,191	1,218	1,004	1,033	1,005	1,005
Net assets (thousand BGN)	195,519	417,966	558,943	837,050	1,194,677	1,230,514	1,382,349	1,289,555	1,417,832
Average amount of accumulated funds per insured person (BGN)	403.31	760.14	934.74	1 400.49	1 866.38	1 906.09	2 139.77	2 003.72	2 206.88
Average monthly income from insurance contributions per insured person (BGN)	11.38	44.6	53.53	102.05	93.06	87.41	122.27	96.70	103.70
Number of pensioners - total including:	16,340	2,092	1,449	1,268	1,138	1,078	1,000	922	873
- with a personal old-age pension:	-	1,681	1,112	957	851	800	736	670	626
<i>lifetime old-age pension</i>	-	749	668	580	500	484	451	410	399
<i>Fixed-term old-age pension</i>	-	932	444	377	351	316	285	260	227
- with personal disability pension:	-	34	11	6	5	4	4	4	6
<i>lifetime disability pension</i>	-	6	3	4	4	4	4	4	6
<i>fixed-term disability pension</i>	-	28	8	2	1	0	0	0	0
- with an inherited pension	-	377	326	305	284	276	262	250	242
<i>lifetime inherited pension</i>	-	319	308	298	298	273	259	248	240
<i>fixed-term inherited pension</i>	-	58	18	7	7	3	3	2	2
Average return (%)	9.44	8.60	5.13	2.43	5.20	1.66	6.39	-6.44	7.61

Note: * Individuals with an open account in a VPF. One individual may be insured in a VPF under more than one contract.
Source: (FSC, 2024)

Indicators for the state of voluntary pension insurance under professional schemes in Bulgaria and the achieved results are the officially published statistical data by the FSC, presented in Table 2:

- The number of insured persons in 2008, when the VPFPS actually started reporting results from its operations, is 4,259 individuals. Until 2020, this number continuously increases and reaches 10,138 individuals (5,879 more compared to 2008), after which a slight decrease is observed to 9,922 individuals at the end of 2023. The data indicate changes in the structure of insured persons depending on the type of contract through which their social insurance is conducted. During the period, there was a sharp increase (slightly over 60 times) in the number of individuals insured under personal contribution contracts – 907 at the end of 2023 compared to just 15 in 2009. The number of individuals insured under contracts with employer-insurers also increased (slightly over 2 times) – 9,806 at the end of 2023 compared to 4,769 in 2009.

- The amount of net assets of the VPFPS increased during the period, reaching 17,496 thousand BGN at the end of 2023 compared to 454 thousand BGN in 2008.

- The average amount of accumulated funds per account in the VPFPS increased during the period, reaching 1 763.35 BGN at the end of 2023, compared to 370.31 BGN reported in 2009.

- The average amount of receipts from insurance contributions increased, reaching 50.85 BGN at the end of 2023 compared to 29.81 BGN in 2009.

- Payments to entitled individuals during the period were made only to one retiree with a personal fixed-term old-age pension, and only in 2019 and 2020.

- The achieved return of the Supplementary Voluntary Pension Insurance Fund varied according to economic development trends and dynamics, from 8.85% in 2019 to -13.84% in 2022, with a reported return of 8.64% in 2023.

Achieving the set goal requires not only a characterisation of the current state but also an attempt to assess the level of development of voluntary pension insurance in Bulgaria. It is necessary to discuss issues related to its potential for real manifestation as a significant element in the multi-pillar pension insurance system, with a noticeable impact on forming individuals' income after retirement. This suggests that attention should be directed towards the key parameters of its functioning – the number of insured individuals, the amount of insurance contributions, the returns on investments, and the size of managed net assets (as a summarising characteristic of the accumulations in the insured individuals' accounts).

Table 2.
State of Voluntary Pension Insurance under Professional Schemes* in

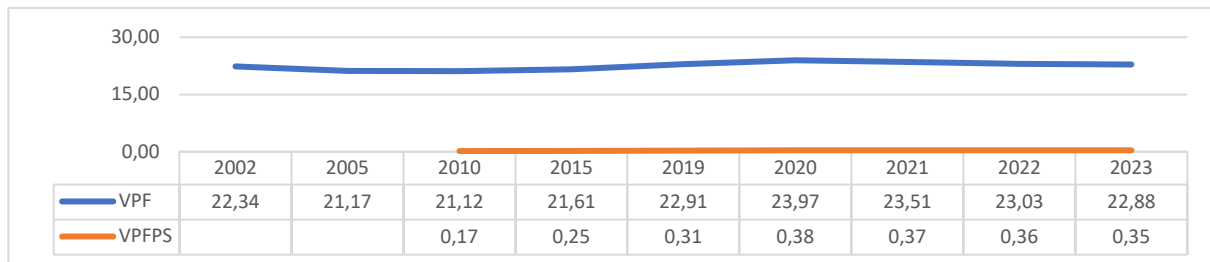
Indicators/Year (as of 31.12.)	2008	2009	2010	2015	2019	2020	2021	2022	2023
Number of insured persons** - total and by types of contracts, including:	4,259	4,769	4,894	6,802	8,653	10,138	10,032	9,994	9,922
- Insured persons under personal contribution contracts	-	15	14	43	59	197	936	937	907
- Insured persons under contracts with employer-insurers	-	4,769	4,894	6,802	8,652	10,136	9,948	9,897	9,806
Net assets (thousand BGN)	454	1,766	2,934	10,057	16,573	18,311	18,573	15,931	17,496
Average amount of accumulated funds per insured person (BGN)	-	370.31	599.51	1 478.54	1 915.29	1 806.17	1 851.38	1 594.06	1 763.35
Average monthly income from insurance contributions per insured person (BGN)	-	29.81	29.75	31.53	30.90	35.43	47.22	49.86	50.85
Number of pensioners - total including:	-	-	-	-	1	1	-	-	-
- with personal fixed-term old-age pension	-	-	-	-	1	1	-	-	-
Return (%)	-	6.03	4.30	0.76	8.85	2.95	4.67	-13.84	8.64

Note: * At present, only one fund for supplementary voluntary pension insurance under professional schemes operates on the Bulgarian social security market – the VPFPS “DSK-Rodina”.

** Individuals with an open account in a VPFPS. One individual may be insured in a VPFPS under more than one contract.

Source: (FSC, 2024).

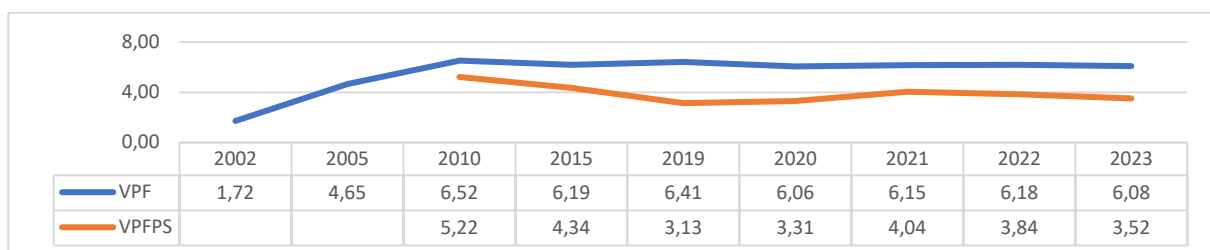
The number of individuals insured in voluntary pension funds from 2002 to 2023 has remained relatively low, which does not indicate achieving the desired extensive coverage of the active population in the country. At the end of 2023, this number, relative to the number of individuals insured in the State Social Security (SSS), is 22.88% for the Voluntary Pension Funds (VPF) and 0.35% for the Voluntary Pension Funds for Professional Schemes (VPFPS) (Fig. 1).



Source: Authors' calculations based on FSC data (Tables №№ 1 and 2) and NSSI (Social Security Indicators by Gender)

Figure 1. Individuals insured in VPF and VPFPS as a percentage of those insured in the State Social Security (%) during the period from 2002 to 2023.

The monthly amount of receipts from pension contributions at the end of 2023, relative to the average monthly amount of insurance income for the country, is at the level of 6.08% for VPF and 3.52% for VPFPS, respectively (Fig. 2). These are values that are comparable to the relative rate of the insurance contribution due when insuring in the Unified Pension Fund (UPF), and at the same time, they indicate the participation of individuals with sufficient disposable current income.



Source: Authors' calculations based on FSC data (Tables №№ 1 and 2) and NSSI (Social Security Indicators by Gender)

Figure 2. Average monthly amount of receipts from pension contributions per insured individual in VPF and VPFPS as a percentage of the average monthly amount of insurance income for the country (%) during the period from 2002 to 2023.

The achieved return on the management of assets of VPF and VPFPS reflects the characteristics that are typical of the more liberal restrictive investment regime (compared to the regime of restrictions established for second pillar funds), associated both with assuming greater investment risk and with the opportunities for flexibility, rapid recovery after losses and extraction of optimal results according to the phase of the economic cycle (Fig. 3).

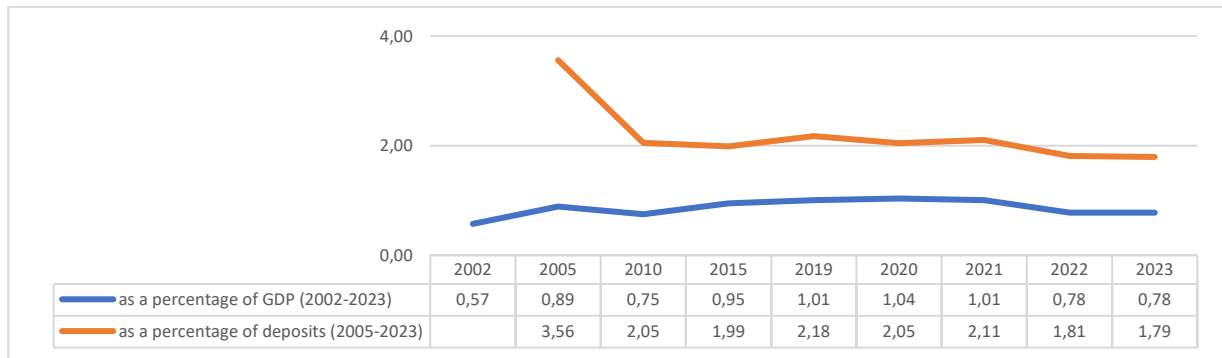
The total amount of net assets of the VPF and VPFPS relative to GDP remains at low levels and at the end of 2023 is 0.78%. Special attention should be paid to the fact that the level of net assets of voluntary pension funds relative to the total amount of household and non-profit institutions serving households (NPISH) deposits is decreasing and at the end of 2023 is 1.79% (Fig. 4).



Source: (FSC , 2024) and BNB (Basic interest rates and yields on government securities).

Figure 3. Average annual return achieved when managing the assets of the supplementary pension insurance funds, effective annual interest rate on deposits in BGN and yield on government securities⁷ over the period 2002 - 2023.

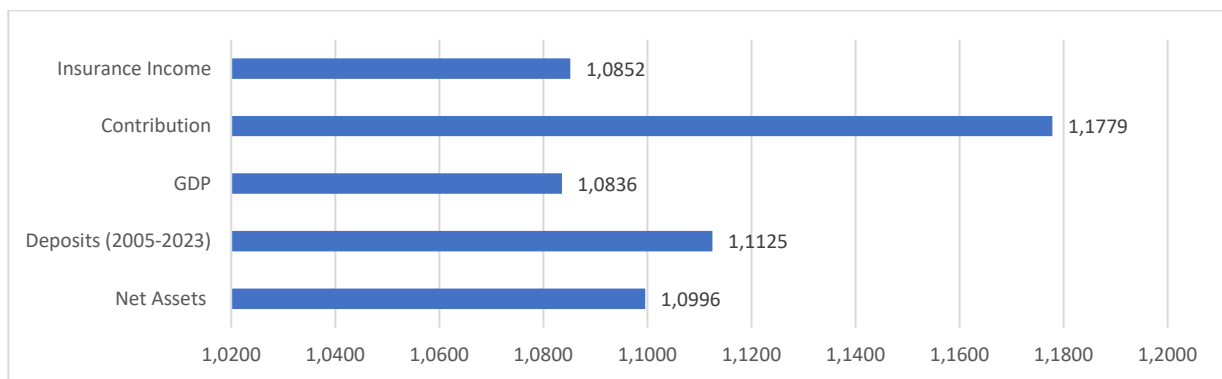
⁷ For the year 2002, the declared yield of government securities with a 3-year maturity, achieved on the primary market in December, as announced by the BNB, was utilized. For subsequent years, the long-term interest rate was used to assess the degree of convergence, determined based on the yield to maturity on the secondary market for long-term government bonds issued by the Ministry of Finance and denominated in the national currency, announced for December of the respective year.



Source: Authors' calculations based on data from the FSC (Tables 1 and 2) and the BNB. (Statistics on credits and deposits by quantitative categories and economic activities.) and the NSI (GDP - expenditure for final use, national level).

Figure 4. Total amount of net assets of VPF and VPFPS relative to GDP and deposits of households and NPISH (%)

The average annual growth rate of the total net assets of the voluntary pension funds during the period 2002 – 2023 (1.0996) is higher than the GDP growth rate (1.0836), but lower than the growth rate of household and NPISH deposits (1.1125). This occurs alongside an accelerated growth rate in the average monthly amount of contributions to voluntary pension funds compared to the growth rate of the average insurable income (Fig. 5). This is evidence of consumer preferences (beyond mandatory participation in the state social security and supplementary mandatory pension insurance) for unsegregated forms of savings over segregated pension funds.



Source: Authors' calculations based on data from the (FSC,2024; BNB-Statistics on credits and deposits by quantitative categories and economic activities; NSSI-Social Security Indicators by Gender; NSI-GDP - expenditure for final use, national level).

Figure 5. Average growth rate of the total monthly contributions and net assets of voluntary pension funds, average monthly insurable income for the country, GDP, and household and NPISH deposits during the period 2002 – 2023.

4. Discussion

It is obvious that voluntary pension insurance in its various forms fails to provoke the expected and desired mass interest, indicating available organisational and institutional capacity combined with untapped market potential. The reasons for this are complex and may be related to the regulated mandatory participation in the first and second pillars of pension protection, existing deficits in the standard and quality of life in Bulgarian society due to income levels and pronounced income inequality, difficulties in current financing of economic entities, and importantly, the insufficient popularity and limited financial literacy of the general public regarding investment opportunities.

We believe that unlocking the market potential of voluntary pension insurance requires product innovations in the realm of offered protection, thereby redirecting the financially viable consumer interest from traditional and easily understandable basic forms of savings and asset acquisition towards modern mechanisms for actively managing temporarily available financial resources in voluntary pension funds, offered by pension insurance companies in their role as major institutional investors. This could be achieved through precise, targeted and tangible tax preferences, providing opportunities for structuring investment portfolios according to individual profiles, financial capabilities and preferences of insured persons and granting the right to choose for high-income individuals, allowing them to opt out of additional mandatory pension insurance in Universal Pension Funds (UPFs) while simultaneously participating in Voluntary Pension Funds (VPFs) if they remain mandatory insured in the "Pensions" fund of the state social security system.

Conclusions

The results of the study indicate that, so far, voluntary pension insurance in Bulgaria does not meet expert forecasts and expectations of becoming a significant component of the Bulgarian pension system. The number of insured persons, the sizes of managed assets and the funds in individual accounts are all extremely insufficient to achieve a significant share in the overall income replacement level during retirement for the majority of members of Bulgarian society.

Regardless of the opportunities offered in the process of professional asset management, financially capable consumers still prefer deposits over participation in the VPF. Suitable product innovations, combined with specified tax incentives and the provision of opportunities for personalised selection of structured investment portfolios and alternative participation in UPF or VPF, are prerequisites for unlocking the socio-economic and market potential of voluntary pension insurance in Bulgaria.

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