SUSTAINABILITY OF PRIVATE ADMINISTRATED PENSION FUNDS IN ROMANIA

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Abstract
At the level of the European Union, pensions from redistributive public systems are the main source of income for the elderly. A quarter of the European Union's population is made up of retirees, and their numbers have been steadily rising in recent years. In the last decade, in Romania, the issue of sustainability of the public pension system has become more and more acute and solutions have been sought for the transfer of responsibility for the payment of pensions from the state to the individual through privately administered pensions. In the field of social policy, the constant concern has been to ensure a decent income for the elderly. The paper aims to identify the financial sustainability of private pension systems, the investment strategies used by these funds, the structure of investment portfolios, the profitability achieved by fund managers. The research method used will be statistical-mathematical. The research data are processed based on the reports and data of the Financial Supervisory Authority (ASF), the Private Pension System Supervisory Commission (CSSPP), the Romanian Association of Private Administrative Pensions (APAPR), the National Institute of Statistics (INS) and those from EUROSTAT. The results of this research consist in highlighting the problems of the current private pension management system and the economic developments of the Romanian economy in the coming decades.

Keywords
Privately managed pensions, investment portfolio, profitability, participant

JEL Classification
G52, H55

Introduction

The unsustainability of the pension system and the dramatic decline in living standards are determined on the one hand by the reduction in the birth rate and the aging of the population, and on the other hand by the increase in life expectancy due to advances in

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medicine and old marriages with limited births child. Therefore, we can say that the world of pensions is a complicated thing!

It is up to the state to take measures for economic development and social protection, in order to ensure a decent standard of living for its citizens. According to Chapter II of the Romanian Constitution, Article 47, paragraph (2) “citizens have the right to a pension, paid maternity leave, health care in state health facilities, unemployment benefits and other forms of public social insurance or private, provided by law. Citizens also have the right to social assistance measures according to the law". In Romania there are two types of pensions: public and private. Among the types of public pensions, we can list: old-age pension, disability pension, early retirement pension, partial early retirement pension and survivor's pension. A public system works very well as long as there is a flow of young generations, in a normal age pyramid, but the demographic evolution after 1989 has determined the search and identification of new solutions to maintain the sustainability of the pension system in Romania.

The objectives of our research are: (1) analysis of the harmonization of the pension system; (2) analysis of the privately administered pension system in Romania; (3) analysis of the evolution of private pension fund managers; (4) analysis of the value of net assets of pension funds; (5) analysis of the return on investments of pension funds in Romania.

1. Review of the scientific literature

Analysis of the harmonization of the pension system

The financial difficulties faced by public pension systems, present in most European Union countries, are due to factors such as: demographic and pension system evolution, increasing the share of the elderly population (Boldrin et al., 1999), providing protection for the elderly (HAI, NASI & IPD, 2002). The development of a specific market regulated at EU level and balanced by an efficient distribution of risks between Member States explains the dependence of the capital market on private pension funds (Bovenberg & van Ewijk, 2011).

Population prediction methods used by researchers and international bodies consist of formulating a set of hypotheses about births, deaths and migration based on expert opinions based on analyzes of previous trends in driving forces and population changes (Lanzieri, 2006). In the international practice of demographic projections, multiple combinations of hypotheses are developed for three components (birth rate, mortality and migration), with three highlighted options regarding the results obtained (lower, middle and upper option) (Ghețău, 2004, 2007). Using key indicators of the pension system (number of retirees, average pension, dependency rate of the public pension system and replacement rate of earnings by pension) a demographic forecast was also made based on the long-term evolution of the demographic (birth rate, life expectancy, migration) (Ghețău et al., 2010). In this sense, a mathematical modeling tool called PROST (Pension Reform Options Simulation Toolkit) developed by the World Bank can be used to promote the development of sound policies, able to reduce the gap between qualitative and quantitative analysis of pension systems.

Based on the European Union methodology on statistical indicators on social protection (including pensions) and simulations carried out using the PROST model, the “Country sheet on pension projections in Romania” was developed for the European Commission's Economic Policy Committee (Sheitan et al., 2012) which are presented according to Table 1 as follows:

Table no. 1. Projections of public pension expenditures

Indicator	2005	2010	2020	2030	2040	2050	2060
Gross expenditure on public pensions	6.19	9.82	9.21	10.25	11.63	12.76	13.52
Net expenditure on public pensions	5.88	9.33	8.75	9.74	11.05	12.12	12.84
Contributions to public pensions	#N/A	7.15	8.07	9.66	11.13	12.47	13.72

Source: "Country factsheet on pension projections in Romania", prepared for the European Commission's Economic Policy Committee.

Using the Eurostat database for the period 1960-2005, studies were carried out to estimate the demographic situation at EU level, which continued in the period 2017-2019 (Lanzieri & Corsini, 2006). Studies on the harmonization of policies to address the aging population in UNECE Member States were conducted between 1987 and 2022 (EC, 2010) and were based on trends and convergence. Extensive studies on the long-term demographic evolution and sustainability of the pension system were also conducted in Romania and the beneficiaries being the National Forecast Commission (Șeitan et al., 2012).

A study on the evolution of social policies in the EU on supplementary or private pensions and the impact of an aging population was carried out and the results obtained indicated the need to develop sustainable, combined/multi-pillar pension systems, creating financial balance on each component, ensuring individual medium and long-term viability (Vasile et al., 2012). The multi-pillar system is used in many countries and the EU has promoted a policy of coordination to ensure financial flows between national funds and streamlining systems (EC, 2004) and EC Regulation no. 883/2004 of the European Parliament and of the EC of 29 April 2004 on the coordination of social security systems.

At the level of our country, there are some important contributions regarding the public and privately administered pension system (Mărginean, 2000; Constantinescu & Constantinescu, 2005.; Dobrescu & Şeitan, 2005; Frunzaru, 2007; Dragotă & Miricescu, 2009; Popa, 2011; Colomeischi, 2014; Tănăsescu și Ionescu, 2020). A report on private pensions confirms the general trend at EU level to develop the private pension sector in response to the lack of long-term sustainability of the redistributive system (SPC, 2008). Also in this report were some warnings about the need to develop a mass education of the population specific to the field to better understand the opportunities and risks of the private pension system.

The private pension system in Romania can have a positive impact on the national economy due to the long-term method of saving and investing. These advantages include: the creation of new jobs in the field, the stabilization of the capital market, the reduction of volatility caused by speculative investments and the generation of liquidity in the economy (Dragotă & Miricescu, 2009). The efforts of the EU Member States to reform the pension system were carried out in accordance with the parametric reform of the public system, pillar I (EPC/SPC, 2010).

The Romanian pension system and its reform

The pension is defined based on legal norms, as the amount of money paid periodically to former employees (within social insurance), both in case of exceeding an age limit established by law or in situations of illness or disability, and in case of employees' descendants or deceased retirees. The purpose of granting the pension is to withdraw from the labor market, with dignity, the elderly and those who have become unfit for work (Ghintuială, 2011). The pension system is characterized by the fundamental social function of universal coverage, in terms of providing decent pensions to retirees, those suffering accidents at work, the descendants of those who contributed to maintaining the pension system and last but not least, those who for some reason or else they could not contribute to the pension system in any way, never having their own income. Applying the same conditions to everyone is unfair and wrong, given the multitude of factors that influence the living conditions of each of us differently. Peter Diamond, an American economist, believes that pensions depend in particular on each person's history and less on the level of taxes and fees collected, with age playing an important role in determining a person's pension level.

The World Bank initially suggested the idea of dividing the burden of the financial future into pillars, and was later taken over by several European countries, including Romania. Countries such as the Czech Republic and Slovenia later introduced and substantially modified the mandatory private pillars, while Hungary and Poland, despite putting them into practice, abandoned them when the pressure on public debt increased sharply. In Croatia, Bulgaria and Romania, the rule that each person must compose his or her pension from several sources, including a mandatory pillar, still applies. The value of the pension depends on the contribution period and on the income earned by each person, in the form of salary, as a basis for calculating the social security contribution.

In most countries, however, pensions are organized by the "funds" method. Thus, the contributions are accumulated and managed (invested) by an autonomous organization. This can be a joint organization of employers and employees, an insurance company, an open-end investment fund, varying from country to country. An optimal solution has been identified by countries such as Switzerland, the Netherlands, Ireland and Sweden which have entrusted the contributions of an independent institution in charge of the professional management of the amounts offered by employers and employees. The architect of pension reform in Chile, Jose Pinera, PhD in economics, was the promoter of this system (Ionescu, 2020).

The pension system in Romania was a different system compared to those in Europe. The pension system in Romania has focused on security and social protection and on its support by the state. For this reason, there is a need to reform it, in the direction of the emergence of additional sources of income to support the payment of pensions. There were four periods of reform: period I (1990-2000), period II (2001-2005), period III (2005-2010) and period IV (2010-2011).

In the first period, legislative measures were taken that allowed the separation of the state budget from the social insurance budget, the differentiation of contributions according to the working group, early retirement, the flexibility of retirement conditions. There have also been negative effects of taking these measures: doubling the number of pensioners, increasing contribution rates and reducing the purchasing power of pensions. In the second period, a new pension law appeared (Law 19/2000), the calculation of pensions was modified, the retirement age was increased and the minimum contribution period was increased in order to increase the sustainability of the public pension system. In the third period, the pension reform was carried out by introducing the second and third pillars of pensions and the minimum guaranteed pension was introduced. The fourth stage brought a new pension law (Law 263/2010), the retirement age was increased, the procedure for determining the value of the pension point was modified, new criteria were introduced to discourage early pensions, the Guarantee Fund was set up of rights in the private pension system (Law 187/2011) (National Forecast Commission, 2016).

Pension reform means expanding the foundations of the pension system by adding two more pension sources (Pillar II and Pillar III), in addition to the state public pension (Pillar I). Pillar II is the name given to the privately administered pension system, with defined contributions, mandatory for people up to 35 years old and optional for people aged between 35 and 45 years. Pillar III is the name given to the system of voluntary pensions, managed by private companies, system based on individual accounts and optional membership (ASF, 2020). These plans are aimed at people with high incomes and those who want to have higher pensions than those that would result from the application of only the two mandatory systems. These schemes are intended to allow participants to have their own savings plans, flexible and regulated according to their individual requirements, called individual pension plans, but of course there are different other types of schemes. There is an interdependence between the three components of the current pension system. If the first two are based on the collection and distribution of contributions collected by the National House of Public Pensions, the components based on capitalization and private administration (the second and third) are supervised by a single institution, respectively by the Supervisory Commission of the Pension System.

Landmarks regarding privately administered pensions

The privately administered pension is an accumulation product, in which the characteristics are strictly regulated by law, both in terms of the commission system and in terms of benefits. The product is a defined contribution pension, in which part of the contribution to the social security system is distributed to a privately managed pension fund. In Romania, the privately administered pension system allows the structuring of these pensions on two pillars, respectively: (1) Pillar II: compulsory state pension administered privately and (2) Pillar III: Optional pension administered privately.

The increase in the number of emigrants and the dramatic reduction in the birth rate have generated in Romania a sharp decrease in the number of the population, which has led to a diversification of the pension system. At the same time, as a result of these phenomena, there was both an increase in the number of retirees and an increase in the unemployment rate. The financial crisis of 2008 also amplified the effect of these phenomena.

In order to protect the savings of the participants in the private pension funds, the private pension system in Romania has several security elements, such as: (1) the supervision and control of the fund managers by the Supervisory Commission of the Private Pension System (CSSPP); (2) the separation in the creation of assets, respectively one for the administrator and another for the private pension fund; (3) the existence of a legal provision, according to which the pension fund cannot go bankrupt; (4) the establishment of strict administration and supervision procedures by the Financial Supervisory Authority (FSA); (5) involvement of depository banks in the pension system; (6) the presence of financial auditors for both the administrator and the pension funds created; (7) the establishment for the market of a minimum share capital by each administrator and guarantees of net contributions and technical provisions; (8) determining the minimum rate of return once every quarter; (9) the elaboration of periodic reports based on prudent actuarial calculations and their submission to the FSA; (10) the establishment of the Guarantee Fund in the private pension scheme.

In Romania, by Law no. 41/2004, the term privately administered pension was introduced at the recommendation of the World Bank and the European Union, which regulates both the establishment, organization and operation of the system of privately managed pension funds, of administrators of privately managed pension funds, as well as the distinct coordination of the activity of the entities involved in this field. The privately managed pension system supplements the pension provided by the public pension system, based on the collection and investment in the interest of the participants, of a part of the individual contribution to social insurance. Although the law was enacted in 2004, the privately administered pension scheme became operational in 2007 and contributions have been collected since May 2008. Compared to the public pension system called Pillar I, mandatory private pension funds, called Pillar II, and voluntary pension funds, called Pillar III, have been added.

Pillar II of pensions is correlated with Pillar I of pensions, i.e. the state pension. The contribution for this privately administered pension is allocated from the Social Security Contribution (CAS). CAS is a contribution that the employee is obliged to pay to the state, under certain conditions, in order to benefit from a state pension in accordance with the law upon reaching retirement age. This contribution is paid monthly by the employer into a single account called Amounts collected for the state budget, the state social insurance budget and the budget of the Single National Health Insurance Fund, which is being distributed. The account is opened at the State Treasury. The related amounts are transferred to the state budget, by payment order, until the 25th of the month following the month for which the salary rights are due. Until January 1, 2018, the social security contribution was divided between employee and employer, but differentiated according to working conditions. Thus, for normal working conditions, the employee paid a monthly contribution of 10.5% of the gross salary income, and the employer paid 15.8% of the employee's gross salary income (a total of 26.3%), for special conditions the employee paid a monthly contribution of 10.5% of the gross salary income, and the employer paid 20.8% of the gross salary of the employee (a total of 26.3%) and for special working conditions 25.8%, and of the employee was also 10.5% of the gross salary income.

From January 1, 2018, the provisions of Government Emergency Ordinance no. 79/2017 for the amendment and completion of Law no. 227/2015 on the Fiscal Code, by which the government reduced the number of compulsory social contributions for employee and employer from three to two, namely: pension contribution (CAS) and health contribution (CASS), both borne entirely by the employee, if working conditions are normal. CAS represents 25% of the gross salary received by the employee, paid exclusively by him, under normal working conditions, but for special and special working conditions, the CAS value is 29% or 33%, the difference being paid exclusively by the employer. Thus, for special working conditions the employer will pay to the state, for each employee 4%, and for special working conditions, 8%. Of the percentage owed by the employee, of 25%, at present, 3.75% is distributed to the private pension fund, Pillar II according to Law no. 411/2004 republished, with subsequent amendments and completions. The state transfers this amount to Pillar II of pensions. Figure 1 shows the evolution of the percentage contribution to Pillar II of pensions in the period 2008-2022.

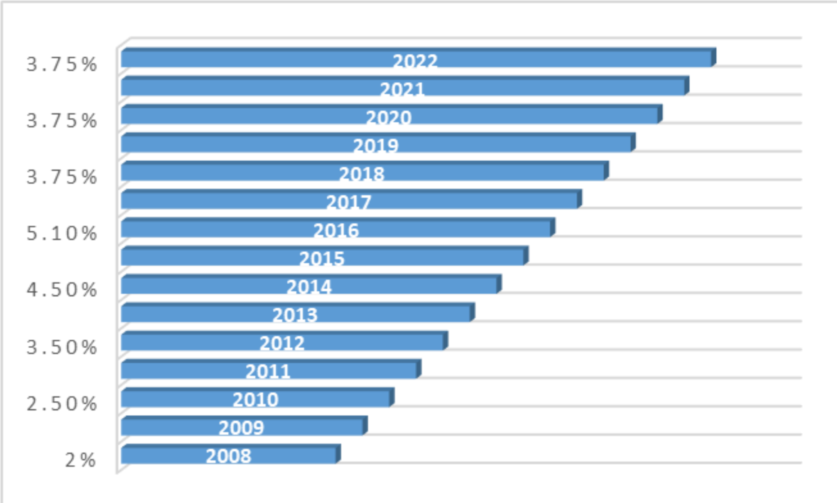

Figure 1. Evolution of the percentage contribution to Pillar II of pensions in the period 2008-2022

Source: Authors processing

2. Research methodology

The information provided by the reports of the Commission for the Supervision of the Private Pension System (CSSPP), the Authority of Financial Supervision (ASF), the National Institute of Statistics (NIS), the Association for Privately Administered Pensions in Romania (APAPR) and EUROSTAT were the basis of the research methodology. Characteristic of Pillar II, privately administered pensions - is the monthly allocation of a share of the personal social insurance contribution paid monthly in the public system to privately managed pension funds. During the entire period in which the person is a taxpayer in the public pension system, the respective contribution is paid. The Commission for the Supervision of the Private Pension System (CSSPP) is the institution for the supervision and control of the privately administered pension system. This institution authorizes each pension fund separately, constituted by civil society. If the CSSPP finds a decrease in the minimum number of participants (50,000) for a quarter, it may withdraw the authorization of the respective pension fund. The administrators of privately managed pension funds invest the capitalized funds set up, each participant having an individual account with a clear record of the nominal contributions, these being the property of the participant, in view of the immediate transfer, in the personal account, of the amounts from the pension fund. The transfer between funds is allowed after choosing a pension fund with the statement that one person cannot participate in several privately managed pension funds at the same time.

The standard retirement age in the public pension system is the age at which a person can receive a pension, i.e. the age at which a participant has the right to use their personal assets to receive a private pension, or to receive a private pension as a single payment or to benefit by managing the assets in the account further. In case of death of the participant, the amount from the personal fund is inherited. The whole circuit of privately administered pension is shown in Figure 2.

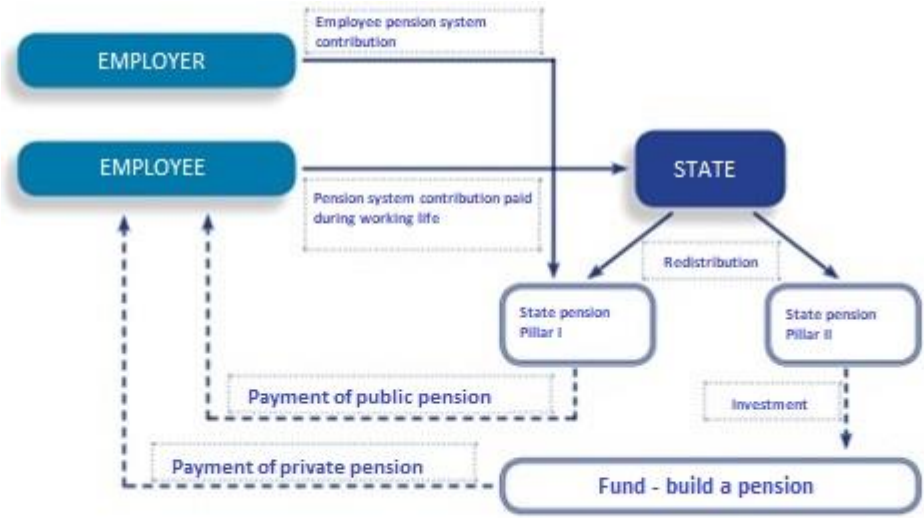

Figure 2. Scheme for establishing the privately administered pension according to ASF

Source: Guide for the participant in the privately administered pension system (https://asfromania.ro/)

In the following will be analyzed: the evolution of private pension fund managers in Romania, the value of net assets of pension funds and the return on investment of pension funds.

3. Results and discussion

Analysis of the evolution of private pension fund managers

If a person wants to know how much he has saved in his personal account as a result of the monthly contribution, he can access the fund manager's website and find out the information. If in May 2008, there were a significant number of 18 companies authorized to operate according to the regulations of privately managed pension funds, over time, their number decreased considerably, reaching in 2021 to operate only 7 pension funds privately administered. These are shown in Table 2. Although the number of pension funds has decreased, the number of participants, the participants' contributions and the total assets of the funds have increased.

Table no. 2. Situation of pension fund managers in the period 2008-2021

Administrator (fund name)	Year	Average number of participants	Contributions transferred (lei)	Annually made payments (lei)
NN (NN)	2008	4,210,417	821,977,642	673
ALLIANZ-TIRIAC (AZT Viitorul tau)	2009	4,771,622	1,324,924,385	45,991
METROPOLITAN LIFE (Metropolitan Life)	2010	5,065,331	1,564,017,424	405,796
AEGON (Vital)	2011	5,351,267	1,976,162,266	796,088
GENERALI (Aripi)	2012	5,663,632	2,501,282,966	2,373,895
BCR (BCR)	2013	5,917,336	3,128,587,814	3,654,781
BRD (BRD)	2014	6,172,266	3,877,181,560	7,970,427
EUREKO (Eureko)	2015	6,427,491	4,936,376,803	11,742,695
AVIVA (Pensia viva)	2016	6,692,378	5,882,753,449	21,398,691
OMNIASIG (Omniforte)	2017	6,927,404	7,142,634,998	42,660,290
BANCPOST (Bancpost)	2018	7,153,324	7,717,775,523	51,739,800
OTP (OTP)	2019	7,353,501	8,487,264,335	76,449,277
PRIMA PENSIE (Prima pensie)	2020	7,559,508	8,912,201,861	178,349,914
KD (KD)	2021	7,711,630	9,768,633,129	287,901,406

Source: Data processed by authors based on APAPR (https://apapr.ro/utile/statistici/) and CNPP (www.cnpp.ro)

The graphical evolution of private pension fund managers is as follows (Figure 3):

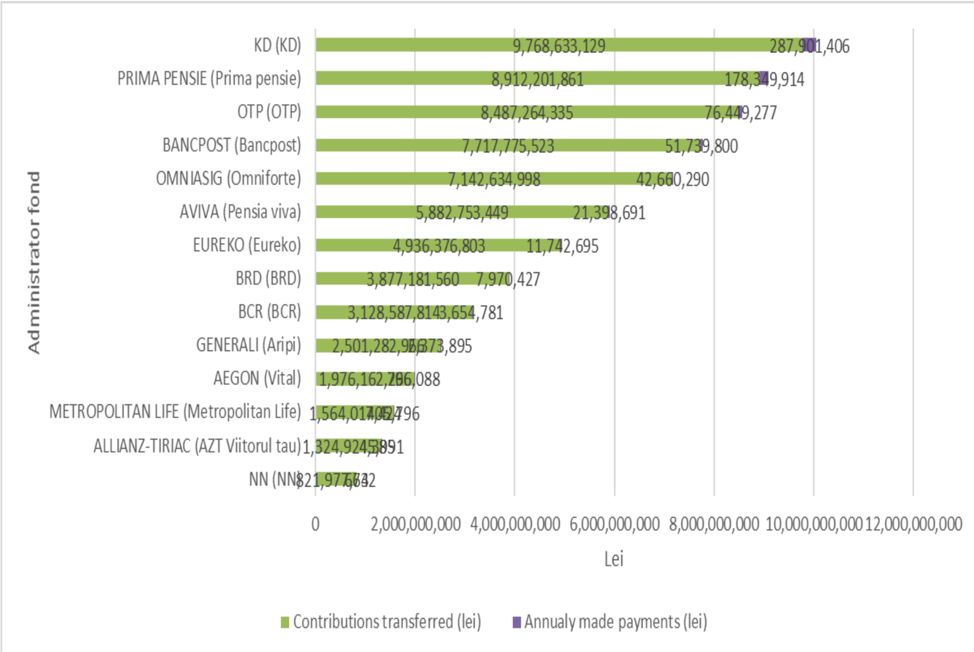

Figure 3. Evolution of private fund managers (contributions transferred - payments made) in the period 2008-2021

Source: Authors processing

At the end of 2021, the market of compulsory pensions administered privately reached 9.7 billion lei, registering an increase of 856,431,268 lei compared to 2020 and an increase of 8,946,655,487 compared to 2008, representing a spectacular increase of 1,088%. It can be seen that the average number of participants increased from 4,210,417 in 2008 to 7,711,630 in 2021, by 83%.

Analysis of the value of net assets of pension funds

According to the law, the net assets of the pension fund are the total value obtained by deducting from the value of the fund's assets the amount of obligations related to the fund. The assets of a privately managed pension fund consist of financial and cash instruments resulting from the investment of the personal assets of the participants in that fund. The Commission for the Supervision of the Private Pension System (CSSPP) issued in 2009 the norm no. 5, which includes the calculation of the net assets and the value of the fund unit for privately managed pension funds. It was completed and modified in 2011 with norm no. 6, which came to specify the method of calculating the assets of the pension fund in the case of the shares of the issuing companies in insolvency proceedings. This indicator is monitored daily by the CSSPP because fund managers are required to provide this information on a daily basis, along with the total asset value and the number of fund units. The statement of assets of private pension fund managers for the period 2008-2021 is shown in Table 3.

Table no. 3. Statement of net assets of private pension fund managers in the period 2008-2021

Administrator (fund name)	31.12.2008	31.12.2009	31.12.2010	31.12.2011	31.12.2012	31.12.2013	31.12.2014	31.12.2015	31.12.2016	31.12.2017	31.12.2018	31.12.2019	31.12.2020	31.12.2021
NN (NN)	321.6	938.0	1,697.8	2,458.3	3,652.5	5,239.5	7,140.5	9,135.9	11,510.2	14,346.7	16,961.3	21,827.0	26,161.1	31,158.0
ALLIANZ-TIRIAC (AZT Viitorul tau)	195.2	557.6	1,012.8	1,506.7	2,240.5	3,186.2	4,244.1	5,411.0	6,856.5	8,618.3	10,317.0	13,377.9	16,215.1	19,069.3
METROPOLITAN LIFE (Metropolitan Life)	60.4	168.9	306.4	454.3	682.4	1,955.1	2,714.3	3,490.3	4,449.6	5,619.7	6,783.1	8,774.4	10,462.0	12,309.6
AEGON (Vital)	23.0	63.4	115.1	177.3	276.3	416.3	1,709.9	2,263.7	2,946.7	3,780.6	4,594.8	6,112.2	7,494.7	8,931.0
GENERALI (Aripi)	66.8	192.6	348.3	520.4	788.5	1,160.4	1,595.0	2,074.3	2,671.7	3,400.7	4,064.5	5,375.7	6,687.9	7,988.0
BCR (BCR)	26.1	101.7	221.9	341.4	540.1	802.0	1,141.7	1,522.9	1,987.5	2,599.5	3,123.9	4,156.6	5,149.4	6,080.7
BRD (BRD)	20.6	57.8	107.4	166.9	254.7	390.1	572.1	775.5	1,043.7	1,375.6	1,732.2	2,343.0	2,935.2	3,532.8
EUREKO (Eureko)	*41.0*	*127.1*	*237.5*	*358.5*	*539.3*	*789.7*								
AVIVA (Pensia viva)	*55.9*	*158.3*	*284.7*	*432.5*	*663.0*									
OMNIASIG (Omniforte)	*9.8*													
BANCPOST (Bancpost)	*4.5*													
OTP (OTP)	*3.5*	*9.2*												
PRIMA PENSIE (Prima pensie)	*2.1*	*6.4*												
KD (KD)	*1.2*	*3.2*												
TOTAL	**831.9**	**2,384.4**	**4,331.9**	**6,416.4**	**9,637.3**	**13,939.1**	**19,117.6**	**24,673.6**	**31,465.9**	**39,741.2**	**47,576.6**	**61,966.8**	**75,105.4**	**89,069.4**

Source: Data processed by authors based on APAPR *(https://apapr.ro/utile/statistici/) and CNPP (www.cnpp.ro)*

The graphical evolution of the net assets of private fund managers is as follows (Figure 4):

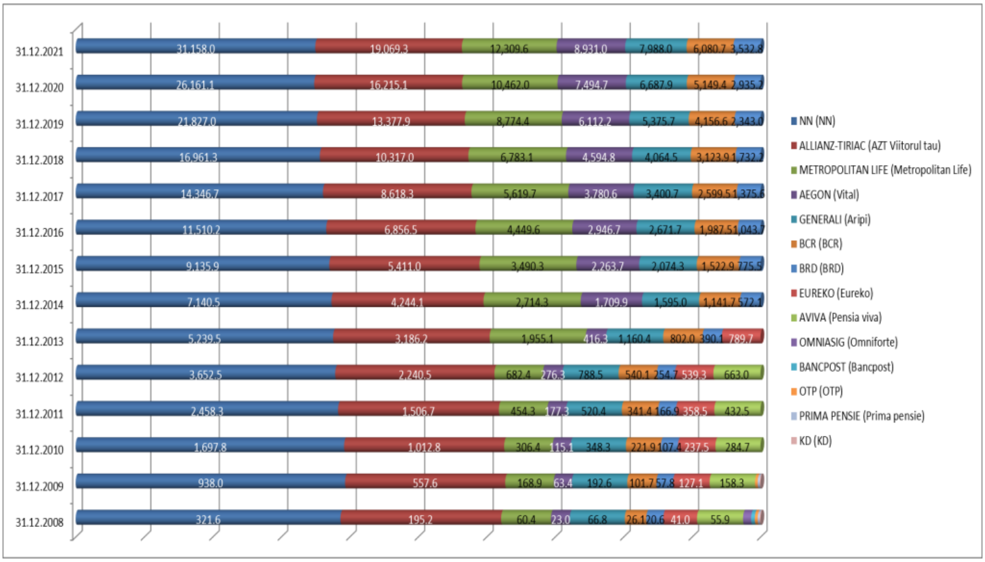

Figure 4. Evolution of the net assets of private fund managers in the period 2008-2021

Source: Authors processing

The total value of the net assets of privately managed pension funds was 89.06 billion lei at the end of 2021, increasing by approximately 19% compared to the same date of 2020. From the data presented, the value of the net assets of fund managers increased by 10606% compared to the beginning year (2008).

Analysis of the return on investment of pension funds

Fund managers invest the contributions of individuals in various portfolios based on: government securities, over 58-76%; listed shares, with a percentage of 25%; bank accounts with a percentage of 2 3% during the entire analyzed period. Smaller shares are allocated for: municipal bonds, supranational bonds, mutual funds, derivatives, alternative instruments. Table 4 shows the portfolio structure of mandatory private pension funds.

Table no. 4. Portfolio structure of mandatory private pension funds in the period 2008-2021

Date	Bonds	Municipal bonds	Supranational bonds	Corporate bonds	Bank accounts	Listed shares	Mutual funds	Derivative instruments	Alternative instruments	TOTAL	Return on funds	Average annual yield
12/31/2008	58.20%	2.30%	3.40%	21.10%	12.80%	1.70%	0.50%			100%	7.00%	7.00%
12/31/2009	64.70%	1.30%	3.80%	13.20%	6.70%	9.30%	0.90%	0.00%		100%	25.90%	17,7%
12/31/2010	66.40%	1.30%	1.70%	11.00%	6.90%	12.20%	0.50%	0.00%		100%	44.90%	15,1%
12/31/2011	66.40%	1.00%	1.30%	7.10%	12.20%	10.70%	1.30%	0.00%	0.10%	100%	49.40%	3,1%
12/31/2012	76.30%	0.40%	0.90%	4.90%	4.80%	11.20%	1.20%	0.20%	0.10%	100%	65.10%	10,5%
12/31/2013	67.00%	0.30%	0.60%	4.70%	9.00%	15.40%	2.90%	0.00%	0.00%	100%	84.50%	11,8%
12/31/2014	68.10%	0.40%	1.30%	4.20%	4.00%	19.10%	3.00%	-0.10%	0.00%	100%	100.50%	8,7%
12/31/2015	65.90%	1.50%	1.00%	3.80%	4.80%	19.20%	3.90%	0.00%	0.00%	100%	107.90%	3,7%
12/31/2016	64.60%	1.20%	1.10%	3.30%	7.10%	18.70%	3.70%	0.00%	0.10%	100%	115.70%	3,7%
12/31/2017	61.40%	1.00%	2.30%	3.00%	8.80%	19.70%	3.60%	0.00%	0.10%	100%	124.80%	4,2%
12/31/2018	63.80%	0.60%	3.40%	3.40%	8.20%	17.40%	3.00%	0.00%	0.10%	100%	127.10%	1%
12/31/2019	61.10%	0.50%	2.20%	7.30%	3.60%	22.00%	3.30%	0.00%	0.10%	100%	154.00%	11,8%
12/31/2020	67.50%	0.20%	2.00%	4.00%	1.20%	21.60%	3.30%	0.00%	0.10%	100%	169.70%	8,01%
12/31/2021	59.90%	0.20%	1.80%	7.00%	2.00%	25.70%	3.40%	0.00%	0.10%	100%	185.60%	5,9%

Source: Data processed by authors based on APAPR (https://apapr.ro/utile/statistici/) and CNPP (www.cnpp.ro)

From a graphical point of view, the evolution of the net assets of private fund managers is as follows (Figure 5). The data presented were reported in December of each year between 2008-2021.

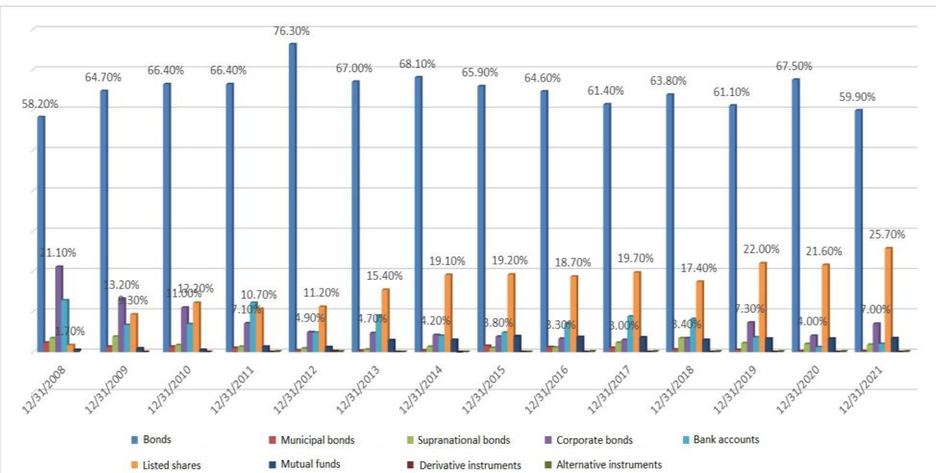

Figure 5. Evolution of the net assets of private fund managers in the period 2008-2021

Source: Authors processing

From May 20, 2008, until the end of 2019, there was a total return achieved by the Pillar II funds of 154%, respectively an average annualized return of 8.35% for the entire period of operation of this pillar. Basically, the respective indicator is much higher than the total inflation rate in the analyzed period (41.8%), respectively the average annualized inflation rate for the same period being 3.05% (APARP, 2020). In 2021, the total yield was 185.60%, and the average annual yield was 5.9%.

Conclusions

At the level of 2022, the Pillar II pension funds accumulated assets worth approximately 90 billion lei, consisting of participants' contributions and capitalized investment gains. The distribution of the value of the participants' accounts shows a high concentration, of 62% of the assets held by 20% of the participants, the largest account having a value of 1,469,858 lei, and the smallest, of 1 lei. At the same time, over 20% of the participants have assets below the value of 1,000 lei. In the case of Pillar II compared to Pillar I, individuals hold fund units in individual accounts. These fund units are the property of the participant in the Second Pillar of the pension and produce a return for him, even inheriting himself, unlike the points in the First Pillar which are lost on death.

Currently this topic is a very important and controversial one. During 2017, this pension pillar was threatened by the possibility of its abolition. The impossibility of repealing the specific law governing the operation of the system saved this pension system, but the contribution rate was reduced to 3.75% (from 5.1%). There are still threats to the existence of these pension funds because some people want to abolish Pillar II and transfer the amounts in their personal accounts to the calculation of the state pension (Pillar I).

The issue of resilience of the pension system is also taken seriously in the National Recovery and Resilience Plan of Romania (PNNR) approved by the EU Council on October 28, 2021. PNNR includes in part II, component 8 Pension system reform. According to this plan, the aim is to increase by one percentage point the contribution related to the privately administered state pension, from 3.75%, as it is now, to 4.75% by 2024. This proposal comes to support the sustainability of the pension system if find measures to bring together the two major institutions that play a key role in making this decision, namely the Financial Supervisory Authority (ASF) and the National Pension House (CNNP). The proposal is even more interesting as the World Bank should provide technical assistance in this direction.

Thus, the objectives of a future research will include the impact that these measures will have on the sustainability of the Romanian pension system and the profitability of new investments in the newly created context.

In conclusion, a sustainable pension system must be adequately regulated, including the prudential regulation of pension funds, transparency requirements in communication and a certain level of protection of participants in the pension system. It must also be supported by a system of digital applications and services.

The authors' contribution is relevant because the analyzed period is extended over a period of 14 years and the information presented is important for investors in privately managed pension funds. Thanks to the successive presentation of clear and centralized information, investors can choose the most appropriate pension fund. Also, the analysis of the profitability of these funds presents information related to the gains made in the analyzed period. The limitations of the article are determined by the analyzed period for which the study was conducted (2008-2021), which may be exceeded by future research and may include simulations regarding the effect of increasing the percentage of contribution to be applied and the evolution of pension funds and reorienting investments to other asset classes.

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