ANALYSIS OF THE ROMANIAN PRIVATE PENSIONS EVOLUTION AND INVESTMENTS

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ABSTRACT: *Transformation of the Romanian pension system into a three-pillar system was one of the most important decision regarding the evolution of pensions. This action was taken as a measure to prevent some of the negative effects generated by the deficits of the public pension fund because of population ageing. Evolution of the second and third pillars in the period 2008-2017 are analyzed under the perspective of the total assets, investments structure or number of participants. Based on data provided by Financial Supervisory Authority (ASF), the evolutions of the two pillars analyzed are relatively similar from the investment structure point of view, but very different as regards the total assets and the number of participants. In our opinion, some of the explanations for such evolutions could be low income of many households or lack of trust in this system from a part of the population.*

KEY WORDS: *private pension funds, mandatory private pensions, facultative private pensions, investment policies, investment structure.*

JEL CLASSIFICATIONS: *G00, G230.*

1. INTRODUCTION

Pensions represent an important social and financial aspect of the society. Pensions needs to be sustainable, meaning that financing of the pensions need to insure a suficient level, but not to afect other destinations. As European Union say, "the adequacy and sustainability aspects of pensions are thus inextricably linked". (European Union, 2010, p. 5)

On these considerations, the pension system in Romania was reformed during 2004-2006 period to prevent some of the negative effects generated by the deficits of the public pension fund as a consequence of population ageing. The solution adopted

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by Romania was to introduce the private pension system (Ionescu, 2013, p. 161) by establishing a multi-pillar system of pensions:

- first pillar include the public pensions system;
- second pillar include the mandatory private pensions (introduced by the law 411/2004). According to the law, contributions to this system is mandatory for all persons that are under 35 and are insured in the public pension system, but voluntary for the persons of 36-45 years old insured in the public pension system. The value of contributions is direct related to the income raised from salary or independent activity. Once the person become insured in the mandatory private pensions system, he/she remains until the conditions to obtain the pension is reached;
- third pillar include the voluntary private pension (law 204/2006). The contribution for this pillar is limited to 15% of the gross salary or assimilated revenues obtained by employees or persons with independent activity.

The Romanian system is a defined contribution one, so the amount of the pension is not predetermined, but the attractiveness of the third pillar is determined by the realization of a suficient rate of return each year. This generate a focus on the short-term performance of funds by managers and beneficiaries and influence the portfolio structure (Stewart 2014, pp. 4–5). Stańko (2017, p. 20) argue that portfolio restrictions generate the adoption of too conservative asset allocation investment policies, but for improving their short-term investment results, managers could invest to the upper limits of risky assets and generate too risky portfolio. Another factor of influence on the portfolio structure for transition countries to a multi-pillar system of pensions it was the state involvement in stimulating the investments in governments bonds, necessary to finance the debt generated into the public pension fund by the reform of the pensions system (Stańko, 2017, p. 20). The reglementations on the private pension funds in the same countries were built with a short-term view (Stewart 2014, pp. 5). Because private pension funds need to assure at the end of active life of the person a suficient value of the individual pension, during the time of contributions made by persons to the fund the managers of the fund have to decide to invest in such a way to insure liquidity all the times, but to assure the beneficiaries at the end with a suficient level of individual pension. For this, the strategy of investment is essential.

The importance of private pension funds in the economy result from the fact that they are included in the category of institutional investors, that compete with banks for household savings and corporate financing (Impavido et al., 2001), but „may also be complementary to banks" through purchaising long term debt securities issued by banks or investing in long term bank deposits (Davis, 2005, p. 13). In a more recent study, Bijlsma et. al. (2018, p. 353) found that firms relying most on external finance are the most important beneficiaries of the increased total assets of pension funds and the financial markets become more efficient along with the increase of the total assets of private pension funds. Also, there are countries where private pension funds are one of the most important investors in government bonds (Andritzky, 2012, p. 9), insuring by this the financing of some activities of the government. Also, depending of the legislation on the instruments allowed for private pension funds' investments, these could finance directly infrastructure investments (Sy, 2017). But an important factor that affect the investment policy of the private pension funds is the legislation.

Analyzing the private pension funds market from Baltics, Medaiskis and Gudaitis (2017) suggest that various investment strategies of the funds are very limited because of the legislation barriers, but also because of the limited number of funds in specific risk categories. Regarding legislation, OECD (2018, p. 6) highlighted that „over time, most of the legislative changes regarding investment regulation of pension funds led to a softening of the limits and allowed more discretion to pension funds".

Our paper try to analyze some of the data that characterize the investments in the Romanian private pension funds market in the period 2008-2017 and to identify the trends and some of the causes in this evolution.

2. LITERATURE REVIEW

Some analyses on the evolution of Romanian private pension funds market were developed over the years and some of them are trying to analyze it from the investment point of view.

An analysis developed in 2007, based on the issuance prospects of authorized pension funds, Horobet et. al. (2008, p. 9-10) found not very significant differences between the investment policies adopted by the private pension funds, but generally their investment policies are quite similar with those from developed countries. Also, Horobeţ et al. suggest some effects that private pension funds could induce in the Romanian economy: the development of the stock market by forcing new companies to list on it for obtaining financing or by stimulating the second market for government, municipal and corporate bonds, the development of good corporate governance practices. Some of the first analyses after the introduction of private pension funds in Romania were realized by Şeulean and Moş (2009, 2010), one for the mandatory private pensions and other for the voluntary private pensions.

As regard the mandatory component, they conclude that even the contributions are small and there were registered some gaps, the results of investments were better than in countries from the region, giving confidence in the future evolution (Şeulean and Moş, 2009). For the voluntary pension funds, the results of the analysis show that all the instruments for investment influence the rate of return, the most important effect on the return was generated by deposits, government bonds and listed equity (Şeulean and Moş, 2010). In a later analysis, Moş et. al. (2013) found that, even the investment strategies of the funds from the two pillars are at some extent quite similar, the strategies adopted by the second pillar funds are safer. Investments in supranational bonds were identified as affecting the most the return of the mandatory funds, and government bonds the return of the voluntary funds. Also, they found that municipal and corporate bonds induce negative effect on the performance of the portfolio in the case pf second pillar. Durac (2016) realized an analysis regarding the evolution of the total assets and investments made in different categories of financial instruments by the funds of private pensions from pillar III. In a thorough analysis on the entire Romanian pension system, Balteş et al. (2018) show the low number of participants to pillar III of the pension system and suggest that for a better development, besides the insurance system, measures must be introduced into the taxing system, educational system and labor market sector. Darmaz-Guzun (2018) analyze the investments made on the romanian capital market by the mandatory private pensions in Romania for the period 2008-2017 and identified the low liquidity of the stock market in Romania as one of the most important barrier for investments of the mandatory private pensions.

3. METHODOLOGY

The paper realizes an analysis of the pillars II and III of the public pensions system, highlighting the importance of the funds raised by these pillars.

For this reason, we used the following indicators:

- total assets of the funds, reflected by their value, absolute change and weight in the total assets of the all private pension funds;
- the weight of the total assets of private pension funds in GDP, as a measure of the importance of these funds for the economy;
- the weight of the financial instruments in the total portfolio of investments realized by private pension funds, as a reflection of the structure of investments;
- participation rate to private pensions, as an indicator reflecting the proportion of participants to private pensions in the total population of working age.

4. RESULTS

The evolution of the total assets of the private pension pillars is reflected by data in the table no.1.

Table 1. The evolution of total assets of the private pension funds

Year	Total asset - pillar II			TOTAL Asset - pillar III		
	Value (lei)	Absolute change (lei)	% of total assets pension funds	Value (lei)	Absolute change (lei)	% of total assets pension funds
2008	832429063		90.79	84421050		9.21
2009	2385772716	1553343653	92.11	204402071	119981020	7.89
2010	4334303106	1948530390	92.95	328606292	124204221	7.05
2011	6420680882	2086377776	93.63	436484619	107878327	6.37
2012	9642253619	3221572737	94.14	599971396	163486777	5.86
2013	13946203419	7223649736	94.49	812958736	212987340	5.51
2014	19127206362	5181002942	94.84	1041517099	228558363	5.16
2015	24686028833	5558822472	95.16	1254317222	212800123	4.84
2016	31483775680	6797746846	95.44	1504188259	249871037	4.56
2017	39765561432	8281785753	95.71	1783542762	279354503	4.29

Source: authors' processing after data on the Financial Supervisory Authority (ASF) of Romania site, online at https://asfromania.ro/csspp/evolutie-indicatori/

As the data from table no. 1 show, total assets of the private pension funds, either mandatory or voluntary ones, registered a continuos growth. The explanations are, in our opinion, that new contributors added to the pension funds as new persons became employees, the growth of the salaries registered during last years in many economic sectors, but also few persons left the system because of death or leave, and not paying anymore. Started at the beginning of 2008, the second pillar attracted, because it is mandatory, more than 90% of the money for private pensions in Romania. On the opposite, the third pillar atracted in 2008 just 9,21% of the total assets of private pension funds, but at the end of 2017 their importance in the pension system declined even more, its assets being just 4,29% of the total assets of the private pension funds.

The importance of private pension funds for the national economy is reflected by their weight in the GDP and the evolution of this indicator, detailed by the two pillars, is reflected in the table no.2.

Table 2. Weight of private pension funds in GDP

Year	total asset pillar II / GDP (%)	total asset pillar III / GDP (%)	total asset private pension funds / GDP (%)
2008	0.15	0.02	0.17
2009	0.45	0.04	0.49
2010	0.82	0.06	0.88
2011	1.14	0.08	1.22
2012	1.62	0.10	1.72
2013	2.19	0.13	2.32
2014	2.86	0.16	3.02
2015	3.46	0.18	3.64
2016	4.11	0.20	4.31
2017	4.63	0.21	4.84

Source: authors' processing after data on the Financial Supervisory Authority (ASF) of Romania, online at https://asfromania.ro/csspp/evolutie-indicatori/ and data on the National Institute of Statistics of Romania (for GDP), online at http://statistici.insse.ro:8077/tempo-online/#/pages/tables/insse-table

The importance of the private pension funds in the economy is reflected by their weight in GDP. Based on data from table no.2., we could see that from a weight of 0.17% of GDP in 2008 the private pension funds reached a weight of 4.84%, becoming an impotant source of financing in the economy. It has to be noted that starting with 2012 the growth was more important because of the mandatory component of private pension funds. As regards the voluntary component of the private pension funds, it has to be noted that its' growth was really slow, so the weight of these funds reached just 0.21% of GDP in 2017, after 10 years of implementation. Such evolution is determined, through other things, by the fact that the salaries increases were not followed by adequate adjustments of the own contributions to the facultative pensions. The importance of this evolution is that through changes affecting the second pillar, the private pension funds market could be affected in a substantial way.

These funds were invested in different financial instruments, but in accordance with the limits established by the law. Tables no. 3 and 4 reflect the investment structure of the two pillars for every year during 2008-2017 period.

Table 3. Investment structure – pillar II (% to total assets)

Pillar II	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Bank deposits	13.43	4.90	7.18	12.08	11.48	8.55	3.97	4.70	7.17	8.80
Government Securities	59.23	64.70	66.35	66.37	66.47	67.03	68.07	65.86	64.64	61.43
Municipal Bonds	2.33	1.28	1.27	1.00	0.97	0.26	0.37	1.48	1.21	0.99
Corporate Bonds	21.12	13.23	11.00	7.13	6.76	4.72	4.17	3.75	3.34	3.03
Supranational Bonds	3.44	3.82	1.70	1.26	1.22	0.58	1.31	1.04	1.14	2.33
Shares	1.75	9.34	12.22	10.72	11.90	15.37	19.12	19.20	18.73	19.72
UCITS	0.46	0.91	0.52	1.29	1.40	2.94	3.03	3.88	3.73	3.63
Other financial instruments	0.00	1.83	-0.24	0.15	-0.21	0.55	-0.04	0.09	0.04	0.07

Source: authors' processing after data on the Financial Supervisory Authority (ASF) of Romania site, online at https://asfromania.ro/csspp/evolutie-indicatori/

Table 4. Investment structure – pillar III (% to total assets)

Pillar III	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Bank deposits	12.85	6.09	8.48	8.93	6.94	7.93	4.60	3.71	4.68	5.62
Government Securities	56.92	68.91	65.85	65.78	68.14	64.21	66.10	63.91	62.26	57.50
Municipal Bonds	10.42	3.43	1.65	1.71	1.00	0.56	0.39	2.52	2.33	1.94
Corporate Bonds	14.97	6.89	6.58	7.24	5.60	5.48	4.69	4.50	4.40	6.17
Supranation al Bonds	2.87	1.50	2.94	2.87	2.02	1.57	1.78	1.44	1.64	2.39
Shares	4.40	12.61	14.10	12.51	15.06	18.95	21.46	21.00	21.12	22.37
UCITS	0.91	0.54	0.57	1.22	1.14	1.05	1.12	2.77	3.23	3.71
Other financial instruments	0.00	0.04	-0.16	-0.25	0.11	0.25	-0.13	0.15	0.34	0.31

Source: authors' processing after data on the Financial Supervisory Authority (ASF) of Romania site, online at https://asfromania.ro/csspp/evolutie-indicatori/

The structure of investment of pillar II of private pension funds show a clear orientation towards instruments with low levels of risk. It has to be noted that, except 2008, all other years are registering more than 60% of the total asset invested in government securities. Despite this, municipal bonds remain at low levels in the funds portfolios, all the years, excepting 2008, being under 1.5% of the total asset. An interesting evolution is of the corporate bonds, that started at 21.12% in 2008 and arived in 2017 at the value of 3.03%. A reverse evolution is registered by shares, that started at 1.75% and arived in 2017 at 19.72% as an attempt of the pension funds to register higher rate of return because of the positive evolution of the shares in times of economic growth. As regards bank deposits, the evolution is sinous, but could be seen that, with some exceptions, the weight of this investment is below 12%, and the investment in UCITS remain relatively low, at no more than 4% of the total asset.

As regard the structure of investment of the private pension funds from pillar III, the general picture is quite the same as for the second pillar. There could be highlighted some small diferences: the investments in bank deposits and government securities, even it have the same trend, register a little low values as in the case of second pillar, but in the case of municipal bonds, corporate bonds and shares the weights are higher than the other pillar. Also, the investments in UCITS and supranational bonds have low weights for the two pillars.

After analyzing the structure of investments, we could note that diferences in the investment strategies are not very important.

An aditional analysis is realized for highlighting the importance of investments in foreign markets or in supranational financial instruments for the private pension funds.

Table 5. Investments' structure, detailed by origin of financial instruments

Year	**Pillar II**		**Pillar III**	
	Romanian financial instruments	**Foreign and supranational financial instruments**	**Romanian financial instruments**	**Foreign and supranational financial instruments**
2012	93.64%	6.36%	93.64%	6.36%
2013	94.14%	6.86%	91.68%	8.32%
2014	93.24%	6.76%	92.69%	7.31%
2015	92.43%	7.57%	93.00%	7.00%
2016	92.58%	7.42%	91.51%	8.49%
2017	90.85%	9.15%	87.76%	12.24%

Source: authors' processing after data on the Financial Supervisory Authority (ASF) of Romania site, online at https://asfromania.ro/csspp/evolutie-indicatori/

Analysis of the investment from the point of view of the financial instruments' country of origin show a slightly increase of the investments in foreign and supranational financial instruments, as a solution of diversification of the portfolio, which is a general rule of investment of pension funds.

The participation rate in the private pension system reflects the importance of this mechanism for the population of the country. This indicator is reflected, for the two pillars, in tables no. 6 and 7.

Table 6. Participants to mandatory pension funds/population, detailed by age

Year	15- 34 years old	35 -64 years old	Total 15-64 years old
2008	54.0250%	18.8628%	32.5590%
2009	57.1040%	21.8965%	35.5667%
2010	57.9677%	24.9565%	37.7323%
2011	59.9211%	28.0553%	40.3531%
2012	61.5534%	30.6583%	42.3756%
2013	62.9764%	33.5595%	44.5512%
2014	64.4025%	36.6594%	46.9148%
2015	66.4246%	39.7359%	49.4507%
2016	68.1940%	42.8012%	51.9294%
2017	69.9345%	45.8569%	54.4428%

Source: authors' processing after data on the Financial Supervisory Authority (ASF) of Romania site, online at https://asfromania.ro/csspp/evolutie-indicatori/

Because of the availability of data about the participants to mandatory pension funds detailed by age (ages between 15 – 34 years and, respectively between 35 – 64 years), we analyzed how many persons of that ages are covered by mandatory pension funds. It is a positive fact that the proportion of the population between 15 and 34 years that is covered by mandatory pension is growing constantly and reached at almost 70%. As regard the population between 35 and 64 years, as a consequence of entering in this category of the persons under 35 years old in 2008 (that were obliged to have such a pension), but also of leaving from this category of persons at the upper limit (that were not insured in the private pension system), the weight of the persons insured grew also with about 27%. But for this category it can be seen that the weight is still under 50%, because of the demographic evolution, which register a high number of persons of 55 years and more at this moment (not insured at the moment of 2008).

Table 7. Participants to voluntary pension funds/population, detailed by age

Year	16 – 29 years old	30 – 44 years old	45 – 64 years old	Total 16-64 years old
2007	0.26%	0.54%	0.39%	0.40%
2008	0.70%	1.56%	1.26%	1.21%
2009	0.83%	1.95%	1.61%	1.51%
2010	1.02%	2.37%	1.83%	1.80%

2011	0.88%	2.76%	2.50%	2.13%
2012	1.23%	3.18%	2.56%	2.41%
2013	0.93%	3.28%	3.30%	2.61%
2014	0.85%	3.45%	4.08%	2.92%
2015	0.92%	3.76%	4.67%	3.27%
2016	0.92%	4.02%	5.18%	3.56%
2017	0.99%	4.36%	5.72%	3.92%

Source: authors' processing after data on the Financial Supervisory Authority (ASF) of Romania site, online at https://asfromania.ro/csspp/evolutie-indicatori/

Analyzing the participants in the third pillar of private pension funds grouped by age as a weight of the total population of that age, we can notice that this pillar has a very low penetration for all the ages, but especially for the age between 16 and 29, where the weight is 0,99% of the total population at that age. Even for the persons older than 45 years, the weight is very low, the higher value being 5,72% in 2017. In our opinion, one of the most important cause of such evolution is because of the lack of financial education, but also of the fact that an important part of population count on the state intervention for solving problems in this area.

5. CONCLUSIONS

The analysis reflect that, during time, private pensions became in Romania important financial actors for national economy, as their total assets account for almost 5% of GDP. Regarding their investment policy, the analysis show that there are not important differences between the two pillars. Most of the total assets were invested in government securities and growing destinations of funds were the investments in shares and, also, in foreign and supranational financial instruments. Analysis of the participants in the private pension system reflect a totally different situation between the two pillars: more than 50% of the persons between 15 and 64 years contribute to the second pillar (which is mandatory), but just about 4% of the persons between 16 and 64 years contribute to the third pillar (which is voluntary). This huge difference could be the result of low income of many households, of lack of trust in this system or of lack of financial education of the population and need to be investigated further.

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