# THE IMPACT OF FEES ON THE RETURN OF THE SECOND PENSION PILLAR IN ROMANIA

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#### Abstract

Setting an adequate level for the fees charged by pension fund administrators is a key design element for policymakers when establishing a second pension pillar. A proper balance between the interest of future pensioners and the ones of administrators is required, but an optimal level of fees is not straightforward. The main objective of this paper is to provide the public and policymakers a numerical reference when judging the level of fees charged by pension funds administrators in relationship with the returns generated for the participants. In this respect, the paper assesses the impact of fees on the money weighted rate of return of the second pension pillar in Romania calculated since its inception in May 2008 until December 2020. The results point to a 1.06 pp reduction in the return attributable to the two types of main fees existent in Romania, while the net return in the absence of commissions is found to have been at a level of 6.99%. The overall reduction of the return of the second pension pillar in Romania attributable to the fees is expected to further decline given the recent reduction in fees decided by the Government.

Keywords: pension funds, fees, money weighted rate of return

JEL Classification: G23, J26, J32

#### 1. Introduction

Population aging poses a number of important challenges in many countries throughout the world, both in terms in ensuring fair and

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adequate benefits to pensioners, but also coping with the budgetary impact of public pensions. At the level of the EU, the 2021 Aging Report elaborated by the European Commission points to unfavourable developments in terms of demography. More exactly, the old-age dependency ratio defined as the ration between people aged above 65 and people aged 20-64 advanced in the EU between 2010 and 2019 from 29% to 34%, being projected also to gradually increase to 59% in 2070. In Romania the situation is projected to be even worse, with the old-age dependency ratio expected to rise from 31.1% in 2019 to 62.1% in 2070.

The pension incomes represent the main source of income for the elderly and the unfavourable demographic developments mentioned above will definitely exert strong pressures on public pension systems. In these conditions, it is difficult to imagine that public pension systems will be able to ensure the same level benefits as today (i.e. the same replacement rate), which will generate challenges for ensuring a decent standard of living for future pensioners. Moreover, some pension systems are characterized by inefficiencies like for example the one of Romania. To this point, Dumitrescu and Draghia (2019a) have showed that the introduction of the correction index in the determination of pension benefits in Romania in 2013 has led to different pensions for people with the same number of points that retired in different years.

In this context, many institutions and stakeholders like for example the World Bank in the report "Averting the Old Age Crisis" (1994) proposed the creation of a pension system composed of three pillars: public pensions as the first pillar, mandatory privately managed pensions as the second pillar and voluntary, privately managed pension as the third pillar.

In Romania the second pension pillar was created in 2007, with the first contributions being transferred to pension fund administrators in May 2008 – corresponding to salaries earned by participants in March 2008, the system operating with a lag of 2 months. Through law, entering the system was mandatory for people aged 35 or less and optional for people aged 35 to 45, with the option being final. The contribution to the second pension pillar in Romania was set to reach 6% of the gross wage, starting with 2% in 2008 and increasing at a yearly pace of 0.5 pp onwards. Thus, in 2008 the ratio of contributions transferred to Pillar 2 out of total pension contributions was around 6.4% while the final target was 19.2%. However, the initial calendar of increasing the contributions transferred to Pillar 2 was not respected due to budgetary constraints, with the contribution reaching 5.1% in 2016. Moreover, the level of contributions to the second pension pillar was reduced to 3.75% in 2018 (corresponding to a share of pension contributions transferred to the second pension pillar of 15%), but it has to be taken into consideration that this change was operated in the context of modifying labour taxation in Romania (transferring the social contributions from the employer to the employee) which meant that the reduction was in fact only about 10%. Basically, in the new context the initial target of 6% of the gross wage corresponds now to a target of 5% of the gross wage (20% of the amounts collected as pension contributions).

The level of fees charged by pension funds administrators is an important parameter of a privately managed pension pillar. A high level of fees can have a significant negative weight on the total level of assets which will be distributed to participant upon retirement. However, an adequate level of fees is necessary for the pension funds administrators to be profitable and also to create proper incentives in terms of risk taking. An adequate balance is therefore required in terms of level of fees to ensure that both the interests of future pensioners and those of pension funds administrators are rightfully met. In general, the impact of fees on the performance of investment funds is not negligible.

In Romania the main fees charged by pension funds administrators - those having the greatest impact of administrators' revenues and on participants - are represented by the fees applied to gross contributions transferred and the monthly fees applied to assets. Over the long term, more important for the participants are the fees on assets as they are applied recurrently, while the fees on contributions are applied only once. The law establishes the maximum level of fees, but so far in the quasi-totality of cases administrators chose to charge this maximum level. Regarding the level of the fees applied on gross contributions, the maximum level was set at 2.5% from May 2008-February 2019 (all administrators charged this level except for market share leader during April 2018-Feburary 2019 who charged 1.7%), to 1% from March 2019-February 2020 and to 0.5% onwards. Thus, this type of fee was significantly reduced in Romania recently, a decision which has some ground in the fact usually this type of fee is more important when assets are low, but as the system develops it becomes less important or justified. In what concerns the fees applied monthly

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on assets, the maximum level was set at 0.05% (equivalent to a yearly level of 0.6%) during May 2008-February 2019 while onwards its level became variable, between 0.02% and 0.07%, being linked to the real return – measured as the evolution of the net asset value per share corrected by the level of inflation. More precisely, it starts from 0.02% per month for a negative real return and then adding 0.01% for each percentage point of positive real return, the maximum level of 0.07% being achieved when the real return exceeds 4%.

Against this background, this paper is proposing to assess the impact of fees charged by the pension administrators active on the second pension pillar in Romania in terms of returns generated to the participants to the system. This will allow to put in balance the costs supported by the participants in conjunction with the return obtained so far. Although, the return must be judged over the long term, almost 13 years of existence of the second pension pillar in Romania allows us to have a reasonable picture of the cost-benefits ratio for the participants. Therefore, the main contribution of the paper is to provide a reference for policymakers and the public when judging the level of fees applicable on the second pension pillar.

The rest of the paper is organized as follows: next section provides references in relation with the studied topic, section 3 presents the data and methodology, section 4 discusses the results while section 5 concludes and refers to future directions of research.

#### 2. Literature review

The literature regarding pension funds is quite extensive, the ways to ensure for the elderly persons the minimum living standard or the living standard similar with the one from the active period being a concern for both economists and policy makers. After the issuing of 1994 World Bank study regarding the ageing of population, the interest regarding pensions pillars increased tremendously. The article proposes the 3 pillars pension scheme, having non-contributory (basic pension), contributory (mandatory savings) and contributory (voluntary savings) pensions for ensuring decent standard of living.

The role of the first pillar is to ensure a minimum living standard (sometimes only at the border of poverty), while the second and third pillar role is to maintain actual (or near actual) living standard. The difference between the second and third pillar is the way in that contribution is paid: voluntary for the third pillar ang mandatory, as part of monthly wages taxes for the third pillar.

Even if the contribution is mandatory and part of the country system of taxes, the second pillar is privately administrated and this mixture between public and private rises a lot of controversy. Willmore (2000) concludes that the second pillar is needed, but a voluntary second pillar must be in place. He argues that is not necessary that the state should not care whether a worker has the means to consume well above subsistence levels during retirement. Orszag and Stiglitz (1999) point out that the underfunded public pension systems represent a potential threat to the fiscal health and to the economic stability of a country. The Orszag and Stiglitz opinions are in line with the vision underlined by the World Bank: the second pillar can contribute to the increase of economic growth, to the easing of burden for public pension and to the protection of pensioners against the political decisions.

Orszag and Stiglitz (1999) examine ten myths regarding to the old age pensions in a "deliberately provocative manner" and demonstrate that, for a dynamically efficient economy, even if the returns obtained by the private pensions fund administrators seems to be higher than for the public pension system it is not always the case. The displayed rate of returns often are not considering the administration fees for the privately managed pension funds. The administrative fees reduce the returns offered for the privately administrated individual accounts and, according to the authors, competition between the providers will not necessarily have as a result a fees reduction.

Analysing the second pension pillar for seven Central and East European countries, including Romania, Fultz and Hirose (2018) point out that the development of the second pillar is the reflection of the transition from the former socialist economic system to the market economy. For all the analysed countries, the pensions monthly payments are guaranteed for the entire lifetime of the pensioners (with no risk of outliving of the benefits), are equitable for man and women (equal pension for equal contribution) and the monthly payments are indexed according to the medium wage and the price index evolution. The requirement of the lifetime benefits should also be maintained also for the second pillar pensions (exception in the case of anticipated withdraws accepted in Croatia, Estonia, Latvia, Macedonia and Slovakia). The weakness of the second pillar comparing to the public pension is that the monthly payments are not adjusted with the inflation and wage evolution (exception Croatia) and the contribution to the second pillar is not guaranteeing the same living standard as in the active period. In this light, the analysis of the second pillar returns and fees which decrease the return is more and more interesting for the subscribers.

On the charged fees are focusing also Tapia and Yermo (2008). Using data from Latin America, Central and Eastern Europe, Australia, and Sweden, they demonstrated that fees are influenced by many factors including the size and maturity of the system, market structure, competition, investment strategy and regulations. Even if Romania is not included into the data, the conclusions obtained for the Central and East-European countries, can be extrapolated for our country. The fees in our Region (like the ones from Latin America) were higher than the fees from the rest of the analysed countries. The explanation can be the fact that a newly established system needs higher funds in order to cover the costs and also that scale economies are not achieved. Once the system reaches its maturity, the fees will decrease, and higher returns will be achieved. The competition existing in a mature market will be also a factor which will generate higher returns. An impediment to obtaining higher returns in newly established markets can be represented also by the limits imposed by the local supervisory authorities for the risk assumed by the pension funds managers; limits that have the scope to prevent benefits loosing for the pensioners.

A comprehensive analysis on fees charged by the pension founds is the one prepared by Han and Stanko (2018) which uses 88 pension schemes from 145 countries, including Romania. The paper is, in fact, the follow up for 2008 and 2014 papers. According to the authors, for the majority of countries, the fees decreased since 2014, with four exceptions, including Romania for which the fees for voluntary pensions plans slightly increased from 1.79% to 1.85%). Using the charge ratio, the actual account return is compared with the return obtained in hypothesis of no charges and considering a 3% investment return, the results for Romanian second pillar are 8.7% for 20 years projection period, 12% for 30 years and 15.3% for 40 years. The paper draws once again an attention signal for the supervisory authorities about the fees on the pension plans and about the returns that must be computed not only using the assets development, but also considering the fees charged.

The common indicators used to assess the performance of investments in general and of pension funds in particular are

represented by the time weighted rate of return (TWRR) and the money weighted rate of return (MWRR). Considering pension funds, the first indicator refers to the increase in the net asset value per share, while the second is an internal rate of return, taking into consideration also the flow of contributions. Feibel (2003) shows that TWRR reflects the decision of fund managers to select various assets and is a good measure to assess the return obtained these administrators, while MWRR is a better indicator for assessing the return generated to participants as it considers also the moment of investment. TWRR can be used to compare the performance of various fund managers while MWRR cannot be used for that purpose as it is influenced by the moment of investment. Considering the characteristics of the two return indicators and the objective of the current paper, we will opt to use the MWRR as a return indicator in order to assess the impact of fees paid by the participants on the second pension pillar in Romania.

Dumitrescu and Draghia (2019b) have computed the TWRR and MWRR of the second pension pillar in Romania for the period 2008-2018 and pointed the advantages and limitations of each indicator but the impact of fees charged by pension fund administrators on these indicators was not assessed.

#### 3. Data and methodology

This research uses monthly data having as source the Financial Supervisory Authority (FSA), while the covered period is May 2008-December 2020, as the second pension pillar in Romania became operational in May 2008. The raw data monthly series used are represented by the gross contributions transferred on behalf of the participants, the net asset value per share of the pension funds, total assets at end of each period. The data are compiled at the aggregate level, with the average net asset value per share being calculated as a weighted average and for weights are used the market share of each fund administrator. Other inputs are represented by the fees charged by fund administrators, and they are established through laws.

In order to determine the impact on fees charged by administrators active on the second pension pillar in Romania on the returns obtained by the participants we will calculate the MWRR in 3 variants: 1) in the presence of both fees on gross contributions and fees on assets – the actual return generated to the participants; 2) in the absence of both types of fees – to investigate the negative impact

on returns generated by the fees; 3) in the absence of fees on gross contributions – to quantify separately the impact on returns of both types of fees.

The 3 MWRR indicators will be calculated in a couple of steps, which will involve calculating some intermediate indicators like the compounding factor and the final amount at the end of the period generated by each monthly contribution. The general formulas used for these indicators are described in relationships (1) and (2) below, while the MWRR is the solution of the equation from relationship (3) below:

$$Compounding \ factor_t = \frac{Average \ NAVPS_{december \ 2020}}{Average \ NAVPS_t}$$
(1)

Final amount 
$$_t = Compounding factor_t x Contributions_t$$
 (2)

Total final amount = 
$$\sum_{t=1}^{N} Final amount_{t}$$
  
=  $\sum_{t=1}^{N} Contributions_{t} x (1 + MWRR)^{n_{t}}$  (3)

Where NAVPS stands for net asset value per share, N is the total number of months until December 2020, t represents the month, with t being from 1 to N,  $n_t$  is the investment period measured in years from month t until December 2020.

In essence, MWRR is an internal rate of return, i.e. the interest rate at which must be invested the monthly contributions for their sum to equal the accumulated amounts at the end of the period.

In order to calculate MWRR in variant 1 the contributions net of the fees applied on them are used, while for MWRR in variant 3 the gross contributions are used in the computations. Variant 2 of the MWRR is more complicated to be determined as, besides using the gross contributions, a solution must be identified in order to eliminate the fees on assets which are already embedded in the data as the average NAVPS is already net of these fees. Thus, we have computed subsequently the average NAVPS in each period in the absence of the fees on assets – by dividing by (1 – the monthly commission) -, while these values were used further to compute the compounding factor of each contribution in the absence of the management fee applied on assets.

### 4. Results

The data and the intermediate indicators used in computing the 3 MWRR are presented, in a synthetized manner, in the next tables:

#### Table 1

Month	Gross monthly contributions (mil. RON)	Net monthly contributions (mil. RON)	Investing period until December 2020 (years)	Compounding factor December 2020 / month t	Compounding factor December 2020 / month t (no fee on assets)
may 08	88	86	12,58	2,6827	2,8844
jun 08	103	101	12,50	2,6747	2,8744
july 08	98	95	12,42	2,6394	2,8351
aug.08	109	106	12,33	2,6171	2,8098
sep.08	105	103	12,25	2,6057	2,7961
oct.08	104	101	12,17	2,6114	2,8008
nov 08	104	102	12,08	2,5481	2,7316
dec.08	111	108	12,00	2,5215	2,7017
jan 20	704	697	0,92	1,0558	1,0612
feb.20	795	787	0,83	1,0720	1,0769
mar.20	782	778	0,75	1,1346	1,1394
apr.20	729	725	0,67	1,1161	1,1203
may 20	749	745	0,58	1,0809	1,0845
jun 20	664	661	0,50	1,0700	1,0730
july 20	658	655	0,42	1,0743	1,0769
aug.20	849	845	0,33	1,0526	1,0547
sep.20	747	743	0,25	1,0439	1,0454
oct.20	733	730	0,17	1,0483	1,0494
nov 20	753	749	0,08	1,0172	1,0178
dec.20	748	744	0,00	1,0000	1,0000
Total	58.273,1	57.114,1	-	-	-

## Computation of MWRR in variants 1,2,3

Source: Financial Supervisory Authority and own calculations

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#### Table 2

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dec.08 272,0 227,0 248,8 220	
	5,0
jan 20 736,2 738,0 749,3 742	 2 5
feb.20 843,9 828,9 841,2 834	
mar.20 883,2 815,5 823,0 816	
apr.20 809,6 756,0 762,6 757	
may 20 805,6 772,7 779,1 774	
jun 20 707,4 681,9 687,3 683	
july 20 703,6 672,1 677,0 674	
aug.20 889,4 862,5 868,5 868	,
sep.20 775,7 754,7 759,5 757	
oct.20 765,0 737,3 741,7 740	
dec.20 744,0 744,0 747,8 747	6,2
Total 75.317,4 75.317,4 79.011,2 75.3	6,2 7,8

#### Computation of MWRR in variants 1,2,3 (continued)

Source: Financial Supervisory Authority and own calculations

During May 2008-Dec 2020 for the participants to the second pension pillar in Romania were transferred gross contributions amounting around 58.3 billion RON, out of which were invested around 98% or 57.1 billion RON, the difference of 1.2 billion RON being represented by the fees applied to gross contributions. Total assets at the end of the analysed period amounted approximately 75.3 billion RON, higher with 29.2% compared to the gross contributions and with 31.9% compared to the net contributions. It has to be mentioned that the level of assets at the end of 2020 is net of the paid fees on assets, those being deducted each month. In fact, for the calculations of MWRR was determined the hypothetical level of assets at the end of the analysed period in the absence of all fees and the result was roughly 79 billion RON, higher with 35.6% compared to the gross contributions. From a different perspective, the assets accumulated by the participant in the absence of commissions charged by administrators would have been with about 4.9% higher compared with the existing situation.

Based on an internal rate of return calculations - described in equation (3) - we have obtained for the 3 MWRR values of 6.4%, 6.99% and 5.93%. Thus, the return generated to the participants by investing their contributions, after deducting the fees applied to them, in the period May 2008 - December 2020 was about 6.4% per year. However, one might argue that the actual return generated to the participants must take into consideration the gross contributions, as they represent the amounts actually transferred. This is obtained by determining MWRR 3. Thus, we can conclude that that the return considering gross contributions was about 5.93% per year in the analysed period, with the fees on commissions contributing negatively to the yearly return with 0.47 pp. By also eliminating the fees on assets, already included in the monthly calculation of NAVPS, we obtain a value of 6.99% for variant 2 of MWRR, which is a hypothetical return generated to the participant in the absence of all fees. It can be concluded that the monthly fees on assets negatively contributed with 0.59 pp to the overall return generated to the participants. Summing the impact of both commissions on the return of the second pension pillar in Romania during May 2008-December 2020 we obtain a negative contribution of 1.06 pp. As the fees on contributions are charged only once and also considering their reduction in recent years, the relative importance of this category of fees in the reduction of return is expected to gradually decline, while the one of the fees on assets will depend on the level of real returns generated as their level depends on that factor.

#### 5. Conclusions and future research

This paper assessed the impact of fees charged by fund administrators on the return of the second pension pillar in Romania, by using the money weighted rate of return. The results point to a 1.06 pp reduction in the return attributable to the two types of main fees existent in Romania – 0.47 pp due to the fees applied on gross contributions and 0.59 pp due to the fees applied on assets. The overall reduction of the return probably will further decline given the recent reduction in fees decided by the Government. Appreciating in a qualitative manner the level of fees charged by fund administrators operating on the second pension Pilar in Romania is beyond the scope of this paper and constitutes directions for future research. However, it is important to find a proper balance between a level of fees which does not weighs disproportionately on the level of the future pension received by the participants to the system, while also ensuring a fair environment for fund administrators, allowing them to operate efficiently and creating proper incentives for the well-functioning of the system.

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