
SCENARIOS REGARDING THE EVOLUTION OF THE PRIVATE PENSION SYSTEM IN ROMANIA

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Abstract

In the world social security systems, moving from the defined benefit pension scheme to a defined contribution scheme is the most important transformation. In many countries the universal pension scheme has been supplemented with another scheme based on individual accounts or accounts based on theoretical contributions. Since the establishment in Romania of the compulsory private pension scheme, Pension Pillar II has reached 10 years this year, sufficient to be able to substantiate a scientific analysis. In the current context, amid the failure to find solutions for raising pensions in the Public System, ideas are being circulated and scenarios are set up, which are impossible in several respects. In this article, the author presents an analysis of the Private Pension System in Romania.

Keywords: *private pensions, Pillar II, defined benefits, defined contributions, social security*

JEL Classification: H55, J32

Introduction

The method of calculating benefits is a defining feature underlying the classification of social security systems. From the defined benefit pension scheme, based mainly on the principle of solidarity, new types of schemes emerged when the promise of benefits found that it can no longer provide for the large mass of the population benefits at the same levels.

The first transformation of the universal pension scheme was to link the benefits of contributions directly or through the calculation base, or revenue. Thus, the defined contribution pension scheme was outlined.

The most common form of redistribution is intergenerational resource transfer. This is the main feature of DB public schemes (defined benefits) and consists essentially in the fact that current active generations pay contributions for their future pensions. At the same time, the resources collected from employees and other individually insured individuals are not currently stored, but they are converted into retirement pensions for current generations of beneficiaries.

There is a tacit, consensual agreement between generations. The basic rule of redistribution is that children now pay for parents and grandparents.

Children do not have the problem of calculating how much they transfer to their parents and grandparents, and they do not claim to be paid as much as they paid to their parents and grandparents, because they have never made any calculation to that effect. This is the form of the „intergenerational agreement”.

The financial constraints and development needs of current active generations raise natural questions: How much do we pay? What is the share of contributions needed?

These questions raise so many problems. A perfectly fair intergenerational transfer would be when the contribution rates remain the same throughout the lifecycle of a national pension plan, ie continuously. This perfect balance between accumulations and redistributed resources would imply that the influence factors of the social security system maintain their values at a constant level, which is practically impossible.

Actuaries have argued that redistributive pension systems should also form a reserve fund, which would contribute to the safety of people that the promised benefits will be respected. The existence of the reserve fund and its financing lies at the basis of the characterization and classification of social security systems.

The relationship between the financing method and the pension scheme can be deepened by analyzing the definitions of „defined-benefit” and „defined-contribution” schemes.

In Romania, the mandatory effect of Law no. 411/2004 included in 2008 the persons under 35 years of age who owed social insurance contributions to the Public Pension System. Those generations have covered up to 1/3 of the duration of their contribution, requiring a further contribution period of 20 years.

From 2008 until now on the level of the social insurance contribution to this fund, interventions were made through legislative means in order to reduce the contribution percentage.

Literature review

Anghelache, Manole, Carp, Sacala (2016) conducted a comprehensive analysis of trends in the evolution of the private pension system in Romania. The possibilities of increasing income from wages and pensions was dealt with by Anghelache, Carp (2017). Anghel, Anghelache, Carp (2016) addressed the issue of the correlation between the main macroeconomic indicators. Ortenstein (2008) questioned the privatization of pension systems in Central and Eastern Europe. Carp (2010) conducted analysis of social security systems in the Balkan countries and Eastern Europe. Anghelache, Carp (2016) proposed the voluntary contribution model in Romania within the Public Pension System.

Research methodology, results and discussion

• Retirement benefit scheme - defined contributions (DC)

In the DC schema, the total of contributions is generally accumulated in an individual account. The accumulation container comprises the contributions paid during the active life.

In theory, the scheme may be liquidated at any time. Retirees receive the actual amounts of paid contributions. The simplified scheme of the scheme (Chicon, 2004) DC is:

$$PENS_{t,x} = BAL_{t,x} / a_x, \text{ unde } a_x = \sum_{t=0}^{\infty} (L_{x+t} * (1+W)^t) / (L_x * (1+i)^t)$$

where $BAL_{t,x}$ is the balance of individual accounts at age x in year t ; L_x is the number of people who survive up to age x ; W is the salary level.

Defined contribution pension schemes are mainly characterized by:

- Individual contributions paid by employees and / or employers
- State expenditures are fixed and represent a well defined part of the budget
- Contributions are predetermined during the accumulation period
- Contributions may be increased by supplementing the percentage applied to the base
- By changing the type of accumulation the administration costs are higher
- administration is complex and requires professionals specialized in insurance and financial activities
- the transfer of ownership of the accumulated account value to the heirs
- Relief from demographic and investment risks
- insurance management specialists.

The scheme is seen as the second pillar in Bulgaria, Latvia, Lithuania, Switzerland, Hungary, Slovak Republic.

• Evolution of the legislative framework in Romania

In accordance with the provisions of Article 42 of Law No 411/144, the contribution to the privately managed pension fund is part of the individual social insurance contribution due by the insured to the public pension system.

At the time of collection, the contribution was 2% of the calculation basis. Collecting the contribution to Pillar II started in May 2008, under the conditions of application of the Law no.19 / 2000 in the Public Pension System. Thus, from the individual contribution to social insurance in the amount of 9.5% of the calculation base, 2 percentage points went to Pillar II, while the difference of 7.5% remained in the Public Pension System.

Although initially an increase of 0.5 percentage points per year was envisaged, ie an increase of the contribution rate to 6% within 8 years, by derogation from these legal provisions, in 2009 the share of the contribution to the second pillar of pensions remained 2%. Thus, the 8-year deadline for reaching the 6% quota was increased to 9 years and the percentage increase of the percentage share was changed in the direction of 0.5 percentage point per annum by 2015 inclusive and by 0.1 points in 2016 and 0.9 percentage points respectively in 2017.

In 2016, the contribution rate was 5.1%, which was also retained in 2017.

For the year 2018, the contribution rate was reduced to 3.75%, in the context of including the employer's contribution to the calculation base and gross earnings.

• **Evolution of the number of participants**

From the point of view of the number of participants in Pillar II of pensions, it is noted that in May 2008 there were 4,156.32 thousand persons. At 31 December 2017, the number of participants was 7,042.18 thousand. At present, Pillar II comprises 7,111.26 thousand people, according to data published by the Financial Supervisory Authority. The graphical representation in Figure 1 shows that the number of participants in the second pillar of pensions had a linear evolution. The evolution of the number of participants is given by the regression model 1.1. Regarding the number of participants who have paid contributions, the resulting equation is according to the relation no.1.2.:

$$y = 0.7696x - 26043 \quad (1.1)$$

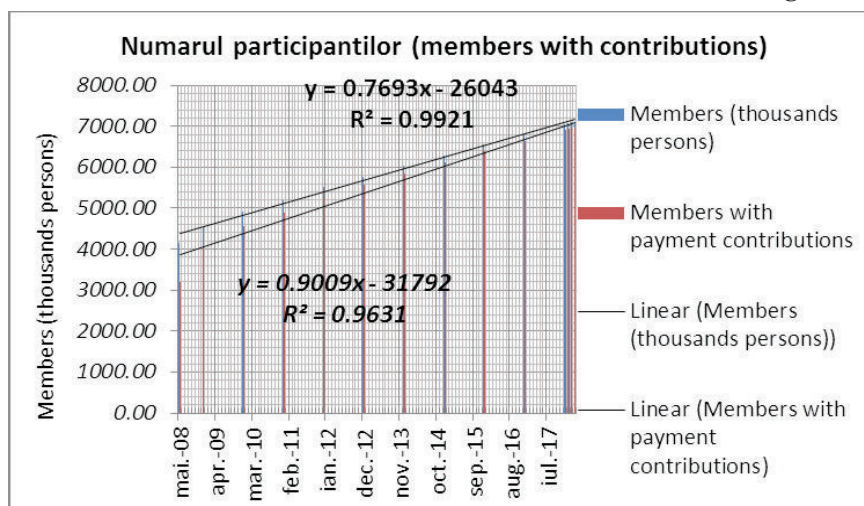
$$\text{where } R^2 = 0.9921$$

$$y = 0.9009x - 31792 \quad (1.2)$$

$$\text{where } R^2 = 0.9631$$

Number of participants (members with contributions)

Figure no.1



• Monthly average contribution and contribution collection

To estimate the amount of a pensioner's pension in this pension pillar it is important to analyze the amount of the monthly average contribution. The analysis of ASF data shows that between May 2008 and February 2018, the average monthly / participant contribution increased from 27.6 lei to 174.98 lei per participant. Due to the inclusion of the employer's social insurance contribution in the calculation of the social security contribution and the decrease in the contribution to Pillar II, in March 2018 the collection of contributions was lower than in February 2018, and 146.82 lei, respectively.

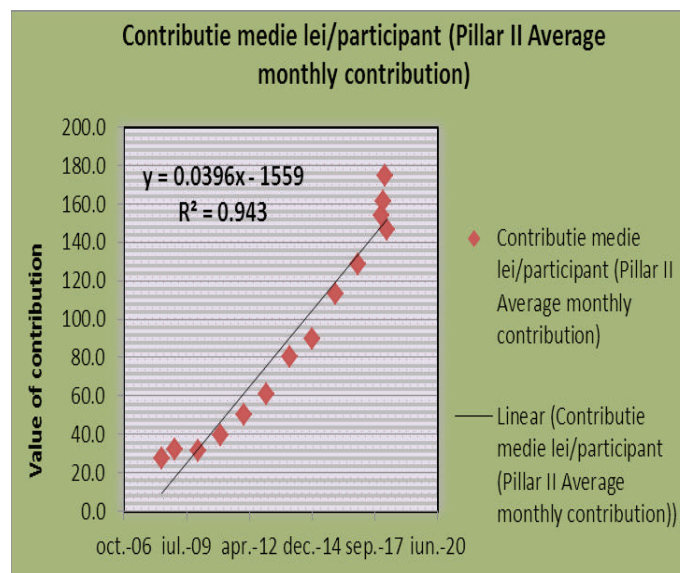
In Figure no. 2 - The average monthly contribution is shown in graphical form the evolution of the average contribution / participant, from which it follows that the regression model is illustrated by the relation 1.3.:

$$y = 0.0396x - 1559 \quad (1.3.)$$

where $R^2 = 0.943$

Average Leu / Participant Contribution (Pillar II Average monthly contribution)

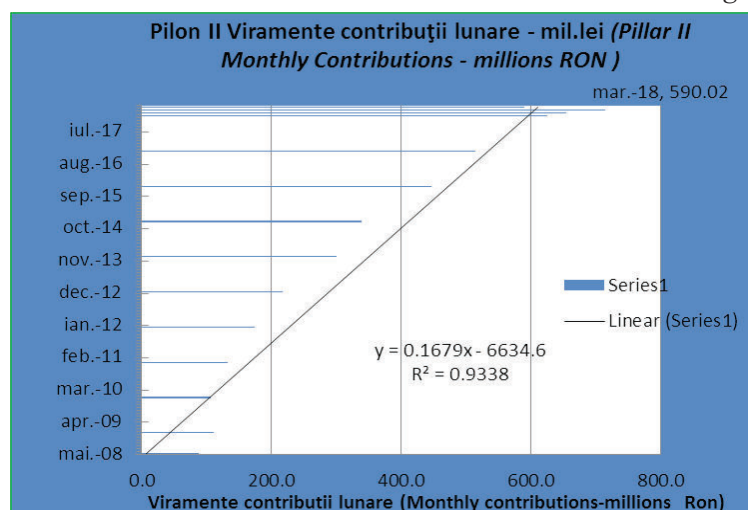
Figure no. 2



Collecting contributions to Pillar II is made from the monthly contributions of the individual social insurance contribution made by the participants to Pillar I, in accordance with the legal regulations. At February 2018, a collection of contributions for the reference month of December 2017 was recorded in the total amount of 713.55 million lei, which is the maximum level recorded in May 2008 - February 2018. For January 2018, the collected contributions, recorded in March 2018 amounted to a total of 590.02 million lei, although the number of participants was increasing.

Pillar II Payments Monthly Contributions - millions RON

Figura nr. 3



• Total asset and profitability

The private pension fund is assessed on the basis of formula no. 1.4:

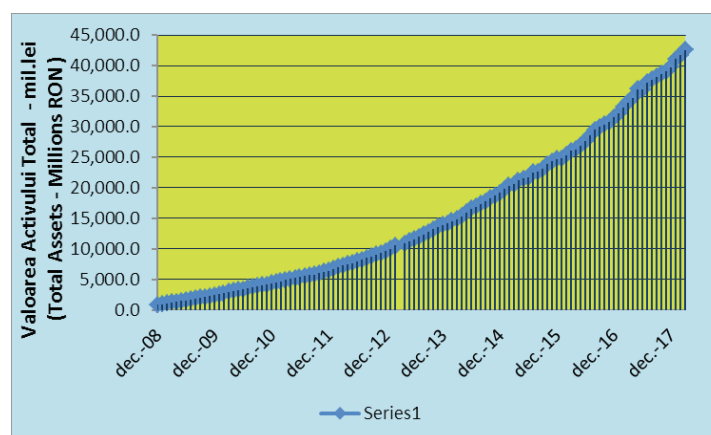
$$VA = N \times P \quad (1.4)$$

where: VA = the present value, N = the number of units in the portfolio;

P = closing price.

Total Asset Value - Millions RON

Figure no. 4

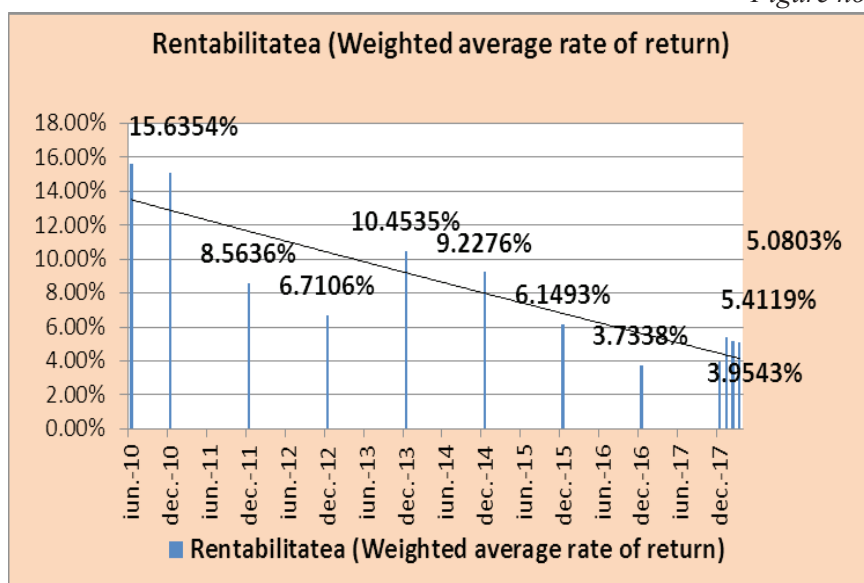


The graphical representation illustrated in Figure 4 shows that the total assets of private pension funds had an upward trend. On 31 March 2018, the total assets of the funds amounted to 42,529.77 million lei.

Each private pension fund was associated with a degree of risk. Overall, the return on funds was 5,0803% in March 2018. From the graphical representation illustrated in Figure 5 - The weighted average rate of return of all private pension funds for the last 24 months (Weighted average rate of return for mandatory private pension funds for the last 24 months) results in fluctuating fluctuations in the rate of return on funds.

The weighted average rate of return of all private pension funds for the last 24 months

Figure no. 5



Conclusion

Pillar II is a pillar complementary to the social security system.

Although the theoretically defined defined contribution pension scheme may be wound up, the refund of contributions paid to the participant in the context of the existence of the social security system involves the use of restituted contributions.

Over the past 10 years, contributions to Pillar II have been extracted from the benefits of generations over the current 70-75 years, and virtually all possible scenarios require extensive analysis.

The financial effort to set up the second pillar of pensions was virtually supported by all generations, which is why its removal or transformation only to find funding solutions for Pillar I is inappropriate.

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