

DYNAMICS OF ASSETS AND INVESTMENTS IN ROMANIA VOLUNTARY PENSION FUNDS

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ABSTRACT: *In most countries, private pensions have an increasingly more important place in the current pension systems. Their importance consist on the one hand, by their contribution that have to preserve a level of income in retirement, comparable to the active period, and on the other side, by the amounts collected from the participants and investments in various investment instruments. In this article I analyze the overall evolution of total assets and net assets on 30 September 2007 - September 30, 2016, and dynamics of the main investment instruments in which pension funds have made investments optional.*

KEY WORD: *voluntary pension funds, pillar III, net assets, placements.*

JEL CLASSIFICATION: *G23.*

1. DYNAMICS OF ASSETS AND INVESTMENTS IN ROMANIA VOLUNTARY PENSION FUNDS

Since the beginnings of 2007, voluntary pension funds in Romania were in second position in terms of the attention paid by pension fund managers, as Pillar II managed to attract a larger number of participants and therefore most important assets.

In the nine years of existence, on voluntary pension market (Pillar III), they were administered 14 funds, but at the end of September, 2016 Pillar III consisted of 11 funds and 9 fund managers listed in the following table:

Table 1. Privately managed voluntary pension funds and pension companies authorized as administrators on September 30, 2016

Pension fund	Pension company that manages the pension fund
PENSIA MEA	AVIVA PENSII PRIVATE - SOCIETATE DE ADMINISTRARE A FONDURILOR DE PENSII PRIVATE S.A.
AZT MODERATO	ALLIANZ-ȚIRIAC PENSII PRIVATE SOCIETATE DE

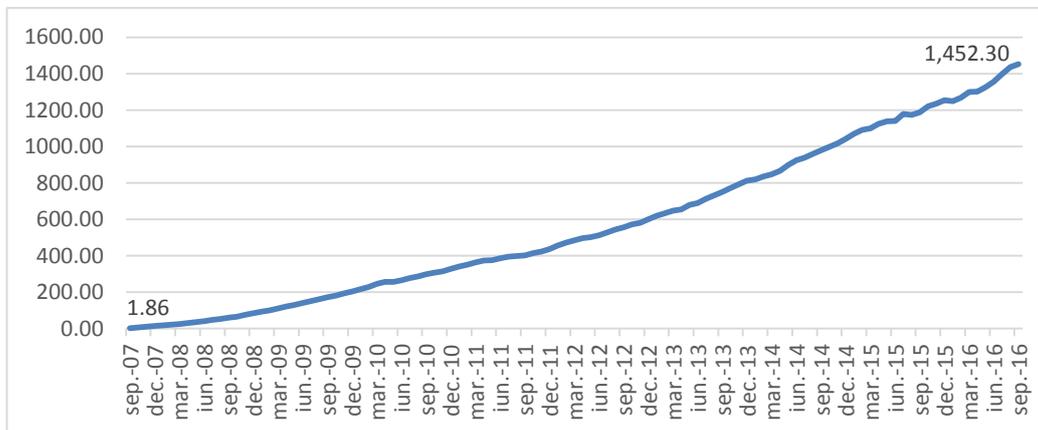
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	ADMINISTRARE A FONDURILOR DE PENSII PRIVATE
AZT VIVACE	ALLIANZ-ȚIRIAC PENSII PRIVATE SOCIETATE DE ADMINISTRARE A FONDURILOR DE PENSII PRIVATE
NN ACTIV	NN ASIGURĂRI DE VIAȚA S.A.
NN OPTIM	NN ASIGURĂRI DE VIAȚA S.A.
STABIL	GENERALI SOCIETATE DE ADMINISTRARE A FONDURILOR DE PENSII PRIVATE S.A.
BRD MEDIO	BRD SOCIETATE DE ADMINISTRARE A FONDURILOR DE PENSII PRIVATE S.A.
BCR PLUS	BCR PENSII, SOCIETATE DE ADMINISTRARE A FONDURILOR DE PENSII PRIVATE S.A.
RAIFFEISEN ACUMULARE	S.A.I. RAIFFEISEN ASSET MANAGEMENT S.A.
AEGON ESENTIAL	AEGON PENSII SOCIETATE DE ADMINISTRARE A FONDURILOR DE PENSII PRIVATE S.A.

Source: Created by author based on data published on www.asfromania.ro

Figure 1 and Figure 2, taken based on total asset value and net asset value data from Pillar III at the end of each quarter published on www.asfromania.ro, shown the continuous growth that has had both this values in this pillar

Growth in assets Pillar III was much slower compared to that of Pillar II assets, the main reason being different funding sources, frequency and amount. Just as in the number of participants in Pillar III, the value of assets had a modest debut in 2007. On the debut year, the voluntary pension funds were able to attract in assets of nearly 14.38 million lei (approximately 3 million euro), while initial estimates amounted to between 30 and 40 million.



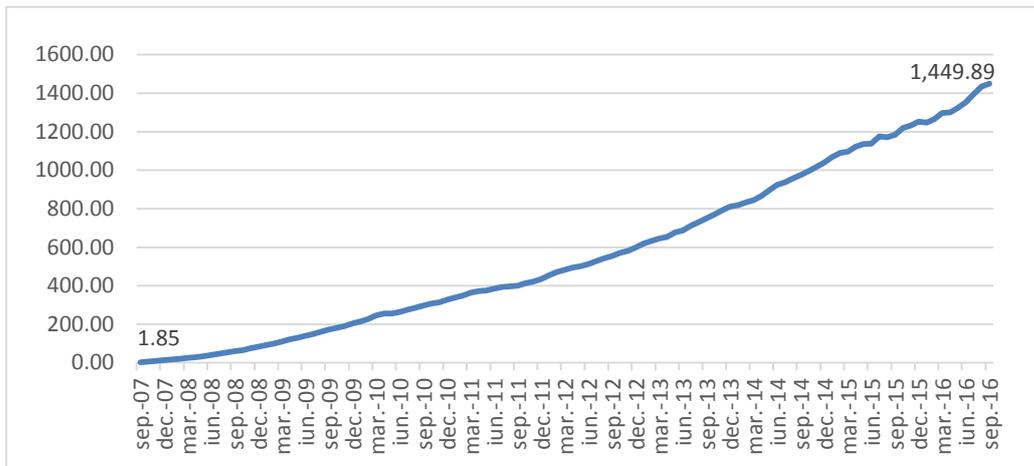
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Figure 1. Quarterly evolution of total asset value of Pillar III (million lei)

In the following I will consider only the evolution of the net asset value because the difference between value and the total asset is very small and it is represented by directors' fees. On 30 of September, 2016, Pillar III's net asset value

increased more than 781 times compared to the baseline/reference value since September 2007. The increase was 1,448.04 million from 1.85 million to 1,449.89 million.

The biggest absolute increase annual development of net asset value of Pillar III took place in 2014, being 228.18 million lei (from 811.61 million lei to the 1,039.79 million lei), while in 2007 recorded the largest relative increase of 672.00% (from 1.85 million to 14.32 million lei), but at the same time the weakest absolute annual increase of 12.46 million lei. The lowest relative growth was recorded in 2016 (September) and was 15.97% (from 1,252.22 million lei to 1,449.89 million lei).



Source: Created by author based on data published on www.asfromania.ro

Figure 2. Quarterly evolution of the net asset value of Pillar III (million lei)

The third quarter of 2016 was the quarter with the largest absolute increase in net asset value, with an additional 96.27 million lei (from 1,353.62 million to 1,449.89 million lei), while the largest relative increase, of 672.00%, occurred in the fourth quarter of 2007 (from 1.85 million lei to 14.32 million lei). The net asset value registered the lowest growth in the first quarter of 2008, with only 10.51 million lei (14.32 million lei to 24.83 million lei) and in the first quarter of 2016 had the lowest increase relative of only 3.63% (from 1,252.22 million lei to 1,297.66 million lei).

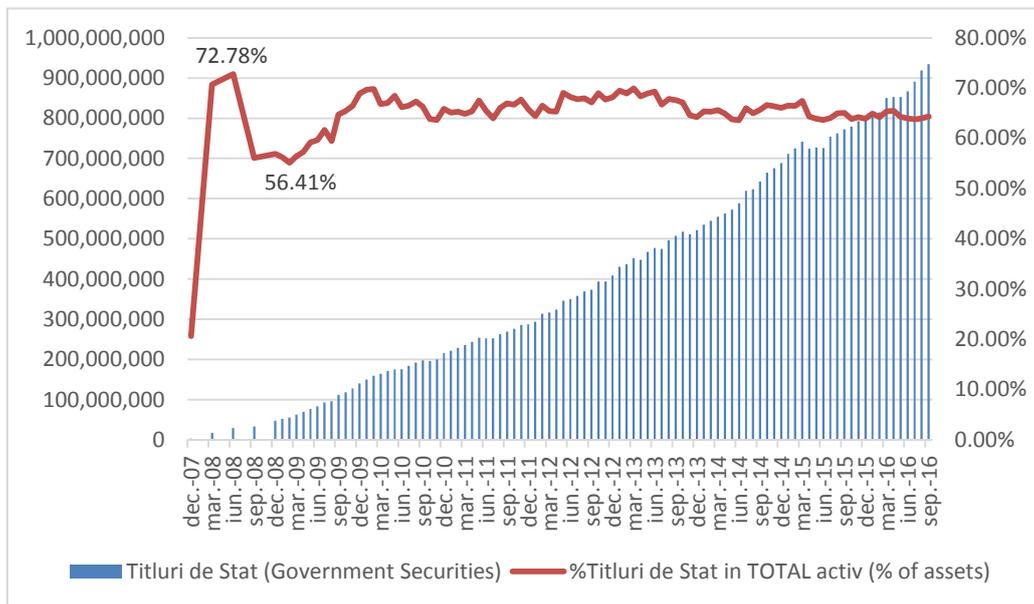
We can say that in terms of the evolution of the net asset value of Pillar III, it was disappointing compared to Pillar II. Thus, on September 30, 2016 net asset value of Pillar III was 1449.89 million, representing only 4.84% and is over 20 times lower than the net asset value of Pillar II on the same date, amounting to 29928.76 million

In Figure 3, I represented the evolution of the value of government securities in the portfolio and their share of Pillar III, which is currently the best investment tool for Pillar III in most of the period which I analyzed.

First of all, there is a general trend, which in the period under review, in almost every quarter of the value of investments in government securities has grown constantly to Pillar III. Overall, it has grown more than 315 times, from 2,963.52

million lei on December 31, 2007 up to 934,650.613 on 30 September 2016, which means 931,687,093 lei. This represented the largest absolute increase of investment in a financial instrument the entire period.

The annual change in value of investments in government securities experienced in 2014, the largest absolute increase of 166,466.938 lei (from 521,966,405 lei to 688,433,343 lei) and the highest percentage increase of 1,521.52 % in 2008 (from 2,963,520 lei to 48,053,970 lei). The increase in 2014 was the largest absolute increase annual investment instrument in the whole period. 2007 saw the lowest absolute increase of 2.96352 million lei, while the minimum relative growth was recorded in 2015 by 16.45% (from 688,433,343 to 801,668,969 lei).



Source: Created by author based on data published on www.asfromania.ro

Figure 3. Changes in the value of government securities in the portfolio and their share of Pillar III

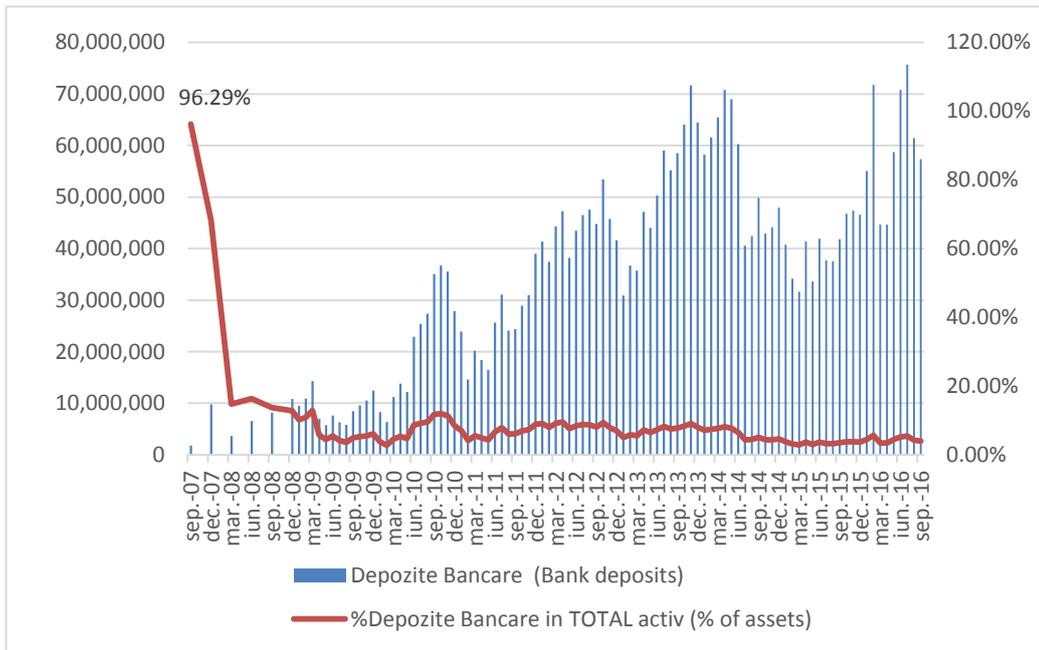
With few exceptions, the most important were the holdings of government securities. Their share in the portfolio has increased overall, with 43.74%, from 20.62% at 31 December 2007 to 64.36% at September 30 2016 and represented the best overall development of all instruments investment during the period.

If we refer to the annual change in the share of government securities, it began after three years of growth alternating with two-year growth by two years of decline. The largest increase was the 36.3% in 2008 (from 20.62% to 56.92%), the largest decrease occurred in 2013 and was -3.93% (from 68.91% to 65.85%). Annual growth of -36.3% in 2008 actually represented the highest annual growth of all financial instruments and the whole time

In the following three figures (Figure 4, Figure 5 and Figure 6.) are plotted the time evolution and their share in total assets of Pillar III of other three favorite instruments, which is bank deposits, corporate bonds and shares.

As seen from 30 September 2007 to September 30 2016, investments in bank deposits increased more than 32 times and with 55.5897 million lei, from 11,788,034 lei to 57,377,735 lei

Regarding the annual evolution we notice it increases, except the years 2014 and 2015. The largest increase in absolute terms was in 2013, with 22,884,599 lei (from 41,620,578 to 64,505,177 lei lei), while the relative increase was the largest in 2010, with 123.74%. In 2014 we recorded the largest decrease in the amount of -16,599,139 lei (from 64,505,177 to 47,906,038 lei lei) and -25.73%.



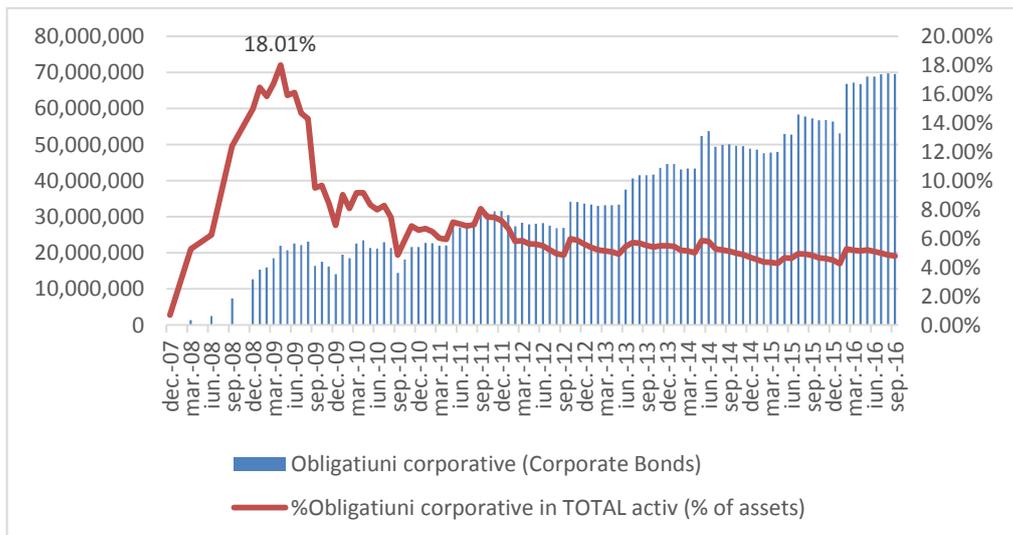
Source: Created by author based on data published on [www. asfromania.ro](http://www.asfromania.ro)

Figure 4. Changes in the value of bank deposits and weights of the investment portfolio of Pillar III

In early 2007, the voluntary pension funds have placed most of the money available from contributions in bank deposits (96.29%), waiting to reach a critical mass to diversify their investments and move towards the target portfolio. Under the law, voluntary pension funds were exempt from the requirement to diversify investment until the value of one million lei net assets, for a maximum period of one year from the date of first collection of contributions. After reaching the one million lei, administrators were available within 90 days in which they had to diversify their investments accordingly and to align the portfolio target, so as to avoid excessive reliance on a particular asset, issuer or group of companies and risk concentration on

overall assets. In late 2007, four of the seven funds already exceeded the threshold of one million lei.

Pillar III of total investment, the share of bank deposits declined overall by - 92.34%, from 96.29% on 30 September 2007 to 3.95% on 30 September 2016. Although at the beginning of the weights this type investment values were high and very high during the review period, it fell heavily, with overall by value - 92.34%, the largest decrease of all instruments total investment over that period.



Source: Created by author based on data published on www.asfromania.ro

Figure 5. Changes in the value of corporate bonds and weights of the investment portfolio of Pillar III

As for the annual evolution of the weight of this instrument, we note a decrease in the first two years, most in 2008 from 68.18% to 12.85% (-55.33%), then a slight rise in the next two years, since the most favourable as the weight increased by 2.39% (from 6.09% to 8.48%). Reducing weight in 2008 (by -55.33%) was the weakest yearly dynamics of a financial instrument in the period under review. This is fully justified, since at the beginning of 2008, seven of pension funds had reached the threshold of one million lei net asset and were, by law, required to align to the target portfolio by diversifying investments.

In the analyzed period, September 2007 to September 2016, investments in corporate bonds increased more than 690 times namely 69,451,564 lei, from 100,675 lei on 31 of December 2007 until 69,552,239 on 30 of September 2016.

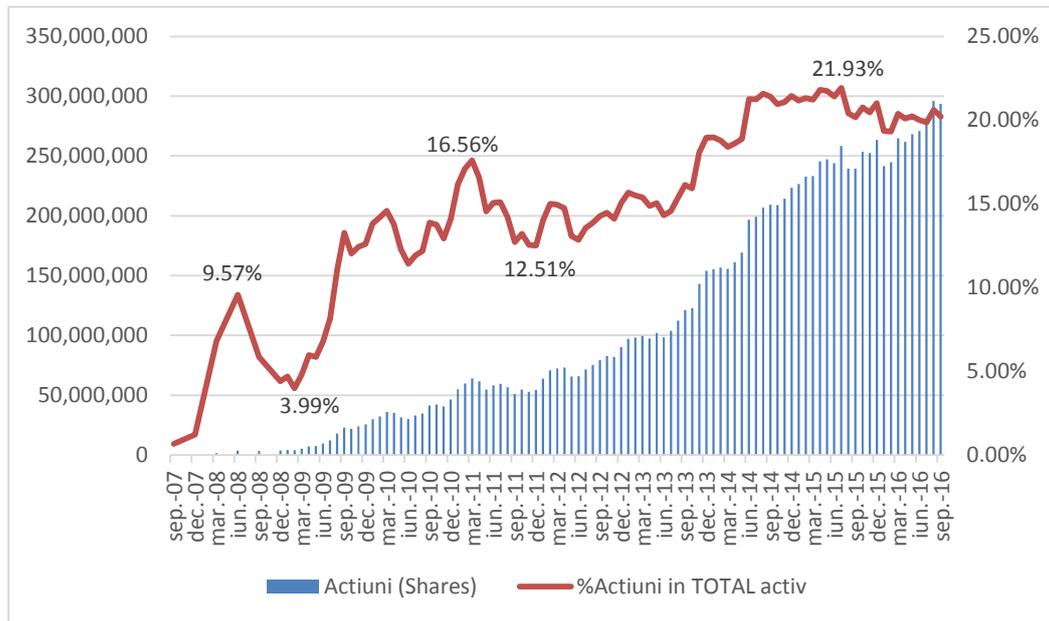
The year 2016 brought the highest growth of these investments, value, amounting to 13,147,131 lei (from 100,675 lei to 69,552,239 lei), but increasingly significant percentage increase was 12,454.96% in 2008. This percentage increase from 2008 was also the highest increase relative annual financial instrument on the entire time interval.

In 2009 we recorded the lowest increases of 1,453,082 lei in absolute and relative terms to 11.5% (from 12,639,735 to 14,092,835 lei). The total investment, the share of corporate bonds was increased from 0.7% at 31 December 2007 to 4.79% at September 30 2016, representing 4.09%. The years 2007, 2008, 2011 and 2016 brought increases in share these tools with a maximum addition of 14.27% in 2008 (from 0.7% to 14.97%), with reductions in other years the share. The biggest fall was in 2009 when the decreased percentage was -8.08% (from 14.97% to 6.89%).

If we analyze the amount of shares purchased, we note an increase of over 23 310 times, which increased by 293,468,394 lei, from 12,590 lei in September 2007 to 293,480,984 lei in September 2016. This relative increase represented throughout the life of the pillar III, the best overall relative development of a financial instrument.

Regarding the annual evolution noted that the value of investments in shares increase in every year, the biggest increase in value was 69.39995 million lei in 2014, (from 154,060,099 lei to 223,460,049 lei) and the significant relative increase was in 2008 from 174.490 lei to 3,713,075 lei ie 2,027.96%. The year with the lowest value growth, in the amount of 161,900 lei was 2007, and the one with the lowest relative increase was 2016, with an addition of 11.40% (from 263,455,733 lei to 293,480,984 lei).

Fairly significant share in investment portfolios and pension funds have investments in shares, which increased overall by 19.53% from 0.68% in September 2007 to 20.21% in September 2016.



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Figure 6. Changes in the value of the shares and weights of the investment portfolio of Pillar III

The most significant annual increase in the share in total portfolio actions Pillar III was in 2009 from 4.4% to 12.61% ie 8.21%. Shares decreases were registered in only three years (2011, 2015 and 2016), the strongest decline was in the year 2011, with 1.59% (from 14.1% to 12.51%).

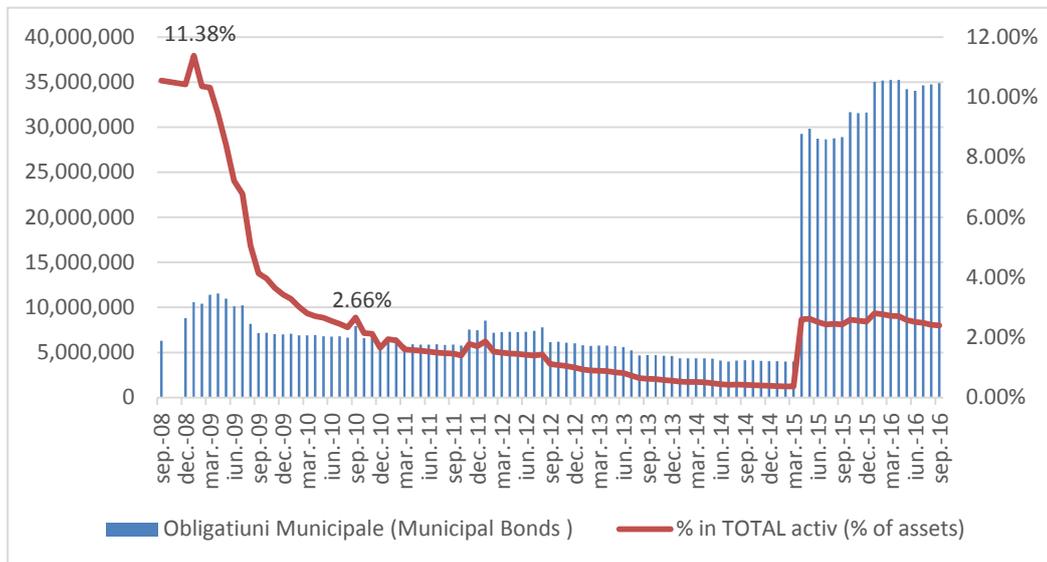
In Figure 7 and Figure 8 I represented changes in the value of investments in financial instruments used and the less their share in total assets of Pillar III.

Municipal bonds globally increased over 5.5 times, their value increased by 28,591,333 lei from 6,295,672 lei on 30 September 2008 until 34,887,004 lei on 30 September 2016.

Annual evolution of these instruments recorded decreases in years: 2009, 2010, 2012, 2013 and 2014, and increases in 2011 and 2015. The largest decrease in value was in 2009 of -1,790,993 lei (from 8,797,864 lei to 7,006,871 lei), while the largest percentage decrease in 2013 by -23.56% (from 5,995,284 lei to 4,583,051 lei). 2015 was recorded its best annual trend, with an increase in value of 27,595,564 lei (from 4.03976 million lei to 31.635324 million lei) and a relative increase of 683.10%.

The ratio of investments in municipal bond funds in total investments decreased overall by -8.14% from 10.55% on 30 September 2009 to 2.4% at September 30, 2016

Except for two years (2011 and 2015) were declines in the share of such investment instruments, the decrease being most of -6.99% in 2009 (from 10.42% to 3.43%), and in 2015 the share increased by 2.13% (from 0.39% to 2.52%).



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Figure 7. Changes in the value of municipal bonds and their weights in the investment portfolio of Pillar III

As can be seen from Figure 8, investments in UCITS unit values were quite low, increasing nearly 39 times overall and 39,039,078 lei, from 1,029,883 lei in December 2007-40068.962 lei in September 2016.

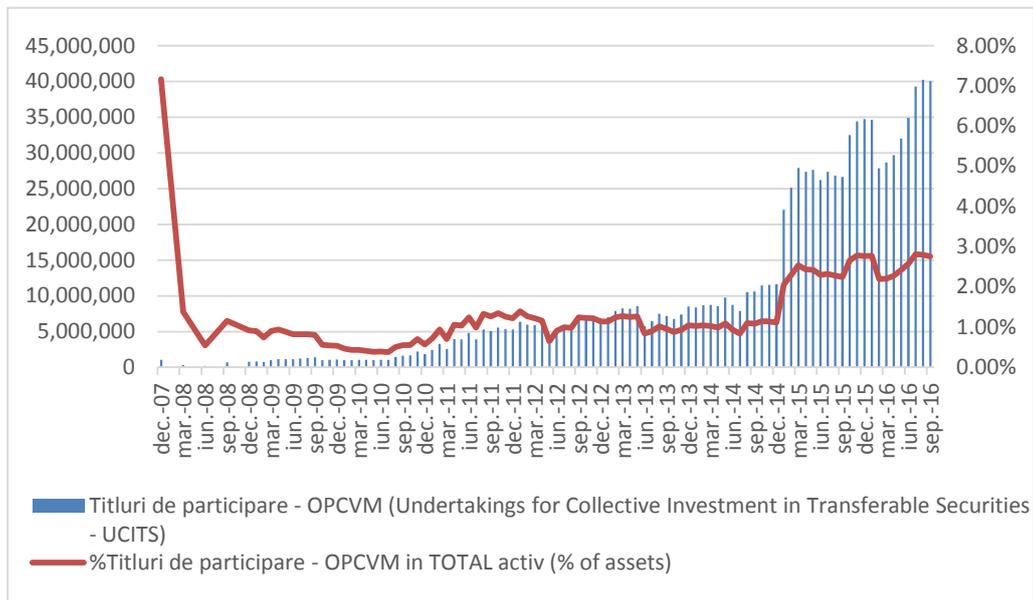
UCITS investment in the units began in 2008 marked a reduction of -258.266 lei and -25.08% (from 1,029,883 lei to 771.618 lei), followed by eight years of growth, of which the most important held in 2015 was 23,113,027 lei in absolute and relative terms 198.82% (from 11,625,210 lei to 34,738,237 lei).

A decrease was registered in the total share of total portfolio and for the UCITS. This was -4.41%, from 7.17% at 31 December 2007 to 2.76% at September 30 2016. In the first two years we recorded decreases in weight, then alternated every two years of growth and decline, the largest decrease being of -6.26% in 2008 (from 7.17% to 0.91%). The highest increase being 1.65% in 2015 (from 1.12% to 2.77%).

Investments in bonds increased foreign bodies during December 2008 - September 2016 more than 10 times and 22,202,747 lei, from 2,423,381 lei to 24,626,127 lei.

Bonds foreign bodies were constant evolution of the share of total investments, overall it dropped by -1.17%, from 2.87% at 31 December 2008 to 1.70% at September 30, 2016.

Years 2010, 2014 and 2016 were annual increases in the share, the highest was the 1.44% in 2010 (from 1.5% to 2.94%), in other years the share decreasing, the maximum decrease was of 1.37% in 2009 (from 2.87% to 1.5%).



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Figure 8. Changes in the value of the UCITS and their weightings in the portfolio of Pillar III

Year after year were increases and decreases in this type of investment, the best year was 2016 with an absolute increase of 6,611,525 lei and a relative increase of 215.26% (from 3.06118 million lei to 9.650608 million lei), while the weakest year was 2015 with an absolute decrease by -554,491 lei and a relative decrease by -3.3% (from 12,508,166 lei to 12,095,071 lei).

Among the latest tools introduced voluntary pension funds' portfolios, with particularly low values have been hedging instruments.

I will proceed to an analysis of investment portfolio by years. Thus, we find that in 2008 the absolute best performers have had investments in government securities, their value increased by 45,090,450 lei, while the largest relative increase had corporate bonds, to 12,454.96%. The weakest units in UCITS have evolved, they being the only ones fell both in value with -258,266 lei and percentage of -25.08%.

The next year we recorded the largest absolute increase in the amount of 92,790,547 lei in government securities investments, while the largest relative increase of 594.03% in the case of shares. The only investment tool that has experienced a setback in 2009 was municipal bonds, lowering their value with -1,790,993 and the percentage with -20.36%.

The largest absolute increase among all financial instruments was in case of bonds, with 75,529,394 lei, in 2010, while the largest relative increase of 215.26% was recorded in bonds of foreign NGOs. The unfavourable developments was, as in the previous year, on municipal bonds, which have declined in value with -1,569,993 lei and percentage of -22.40%

In 2011, in the first place on value increase, in all types of investments, was government bonds, with 70,756,819 lei, and in relative terms, the maximum increase of 184.81% was recorded in the case of the UCITS. The lowest increase was that of municipal bonds, which is only 2,018,125 lei. In percentages, the lowest growth had her shares, being 17.83% of

2012 brings the largest absolute increase in investments amounting to 121,669,695 lei, in government securities and the largest relative increase of 65.44% in the case of shares. Municipal bonds experienced the largest decline in 2012, dropping them to -1.46017 million lei value and percentage of -19.59%

The securities had the largest absolute increase of any financial instruments in 2013, amounting to 113,165,482 lei, while the largest relative increase of 70.53% was recorded in the case of actions. The worst evolution was again in the case of municipal bonds, which fell in value with -1,412,233 lei and percentage of -33.66%

In 2014 the highest growth in value was, once more, in government securities, with 166,466,938 lei, which is the largest annual increase in absolute value of a financial instrument in the entire period. In terms of relative, the maximum growth was recorded in 2014 on bonds of foreign NGO's, amounted to 45.75%, while the largest absolute decrease, in the analyzed period, were on bank deposits -16,599,139 lei and the same time, they recorded the strongest relative decline of an investment instrument in 2014, with a percentage by -25.73%.

As in other years, in 2015 government securities recorded the largest absolute increase amounting to 113 235 625 lei, while the largest relative increase of 683.1% was for municipal bonds. The biggest value decrease was recorded in the case

of investments in bank deposits which were -1,340,318 lei and the relative maximum decline by -2.93% was in bonds of foreign NGO's.

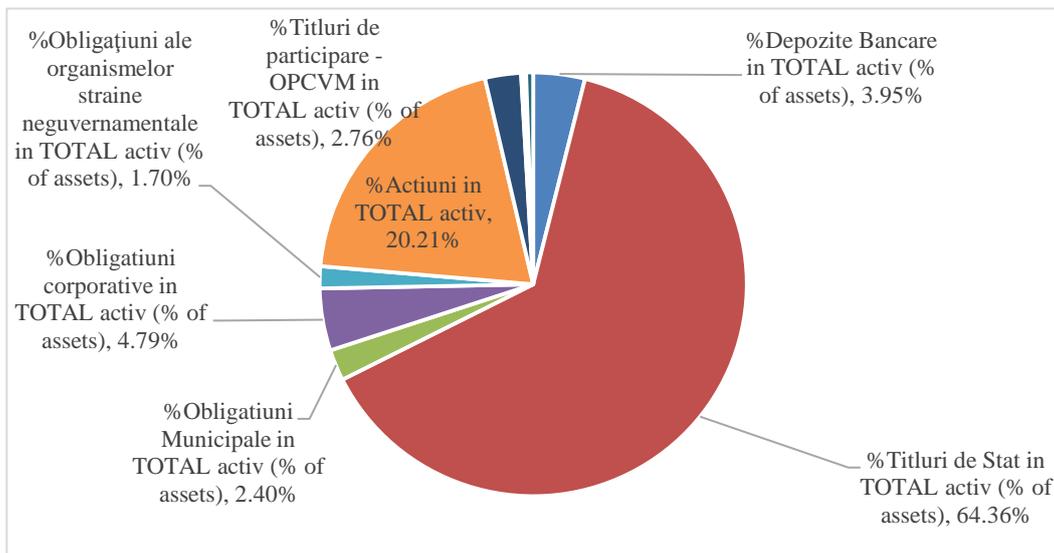
In the first 9 months of 2016, the investment tool with the most significant value growth it was also represented by government bonds, with growth of 132,981,644 lei, while the strongest growth in relative terms was 36.70% and it was passed into bonds of foreign NGP's. Municipal bonds registered the strongest decline in both value and percentage of -3.25168 million lei, respectively -10.28%

Analyzing the share of investments each year individually, we note that the best developments in 2008 had a government securities, whose share increased by 36.3% (from 20.62% to 56.92%), while the weakest had evolved the bank deposits, their share declined by -55.33% (from 68.18% to 12.85%)

The following year, on the first place we find again investments in government securities, which recorded the highest increase in the share of 11.99% (from 56.92% to 68.91%), while bonds corporate had the largest decrease in the rate of -8.08% (from 14.97% to 6.89%)

In 2010 the highest growth was recorded on the bank deposits, with an increase of 2.39% (from 6.09% to 8.48%), while the largest decrease took place on the case of securities State, they declined by -3.06% (from 68.91% to 65.85%)

Corporate bonds had, in 2011, the best performance with a plus of 0.66% (from 6.58% to 7.24%), while the worst developments have had shares, which weight decreased by 1.59% (from 14.1% to 12.51%)



Source: Created by author based on data published on www.asfromania.ro

Figure 9. The structure of the investment portfolio of Pillar III 30 September 2016

The best developments in 2012 have had shares, whose share increased by 2.55%, while the weakest evolved bank deposits, their share declined by -2.00%

In 2013 the shares have recorded, once more, the largest increase in the share of 3.89%, while bonds had the biggest decrease in the rate of -3.93%

Next year, 2014, the weight of shares had the best evolution with an addition of 2.50%, while the largest decrease of -3.33% was recorded for bank deposits. 2015 recorded the largest increase in share of municipal bond with an addition of 2.13%, while the worst developments have had bonds, they declined by -2.19%. In the first 9 months of 2016 bonds recorded the biggest increase in the share of 0.44%, while shares had the biggest decrease in the share of -0.80.

Thus, on 30 September 2016, the structure of the investment portfolio of Pillar III was the one shown in Figure 9.

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