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## THE DEVELOPMENT OF VOLUNTARY PENSION FUNDS IN SERBIA

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***Abstract:** Developed systems of retirement insurance operate in three stages, but in our country the second one has been left “for better days”. The third stage is based on voluntariness. That is how the operating of retirement system is being done in three connected stages: payment in pension fund, the investment of unrestricted balances, programmed payment- pension. The stability of inflow in voluntary pension funds and predictability of payment make quality portfolio investment and long-term return of investment possible. The key of success of Serbian pension fund is in making trust of citizens in this kind of saving.*

***Keywords:** retirement system, voluntary pension funds, financial market*

### 1. Introduction

The reform of retirement system, which has been done in recent years, does not give expected results, because the state takes part in financing of retirement, where average pension in February 2018 was 26,738 RSD. (CROSO, 2018)

In Serbia there are obligatory and voluntary retirement insurance.

“Pay as you go system of financing can operate well if national economy is rising and when the number of the employed is much higher than the number of the retired. If there is no economical self- preservation of public pension fund, financed in *pay as you go* way, the state must intervene as a financier using budget funds, and if they are insufficient, it uses special taxes on tobacco, alcohol, petrol, luxury goods etc”. (Kočović et al., 2010 a, p. 493 )

“Private pension funds operate as a fully funded system of financing which is often called the system of accumulation of capital, or the system of capitalized funds. The level

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of retirement depends on the level of accumulated premium funds (contribution) and on the return of premium investment (contribution)". (Kočović et al., 2010 b, p. 493)

"At the end of the third quarter of 2017 in the phase of accumulating, there were 185,445 users. It should be said that the membership in fund is divided in two phases - the phase of accumulation (period in which means are paid) and the phase of withdrawal of money (period when a member withdraws accumulated means)". (NBS, 2017)

"Strategic goal in this area is introducing healthy retirement system on numerous bars". (Radojković, 2012, p.41)

## 2. Characteristics and importance of voluntary pension funds

The law about voluntary pension funds and pension plans was instituted in September 2005 and was enforced on April 1st, 2006. The first amendment of rules was done on May 7th, 2011, when the legal frame was given for the reform of retirement system in Serbia. By this law the third bar of retirement system has been given. Private pensions have been completely independent from state pensions and are based on the principle of personal accounts. The means of private pension fund have been invested in financial instruments which bring to the optimization of portfolio, by giving the best relationship between the investment risk and the rate of drawing profit. The means of private pension fund are invested according to the following investment principles regulated by the law:

1) the principle of security, which is implemented by investing in effects of issuers with high rating;

2) the principle of portfolio diversification, which is implemented by investing in different financial instruments (government bond, corporative bond, vault notes, shares, bank deposit, hypothecary bond etc.) By using different quantitative methods horizontal diversification is being done, which means that the selection of concrete effects in the frame of different kinds of instruments is offered. The most important eminence of financial instruments: the state, business banks, firms, local government.

3) the principle of maintaining solvency, which is implemented by investing in effects which can be sold and bought in a short period of time and for good prices. The aim of the fund is to have enough percentage of solvent financial instruments in its portfolio, so that it can accomplish its obligation at any time. (DPF Dunav, 2017)

In articles 31, 32, 33 i 34 of The law about voluntary pension funds and pension plans („Sl. glasnik RS“ , br. 85/2005 and 31/2011), it is strictly defined where you can invest estate of voluntary pension funds.

The members of The Fund choose the funds they will pay money into, the way and the hight of the subscription and the way of discharge, as well.

In Serbia, there are four companies that have voluntary pension funds which manage seven voluntary pension funds. (NBS, 2017)

### The Development of Voluntary Pension Funds in Serbia

We should mention that the members of the Fund may start withdrawal of the money at the age of 53 or 58 depending on the age when they entered the Fund. (DPF Dunav, 2017).

**Chart 1. The number of members, estate and contribution rate of voluntary pension funds in Serbia**

Company	Number of members	Estate (in millions RSD)	Contribution 2017	Contribution 2017
Generali Basic	43,147	9,020.8	4.68%	13.10%
Generali Index	4,672	531.1	-1.09%	8.48%
Raiffaisen Future	22,518	3,848.9	4.54%	10.59%
Raiffaisen Euro Future	1,488	34,8	-1.48%	-
DDOR Garant Ekvilibrio	60,048	5,247.3	4.13%	11.16%
DDOR Garant Štednja	15,587	658.6	5.62%	12.17%
DUNAV	83,672	13,448.7	5.10%	12.19%

*Source: Statistical Annex of NBS for December 2016.*

In the chart, one can see that the whole number of members at the end of the fourth quarter of 2016 is 231,132 (the member of the Fund can have more contracts in the same fund, but in different funds as well, so the number of contracts is higher- 250,460) which means that less than 5% of citizens of Serbia are members, the part of pension fund users in total number of the employed is 9.5%. Previous data show that there is a great potential for this kind of saving in the future. (Stanković, 2017)

Also, data in the chart show solid returns of funds and well placement of accumulated means.

The return rates of voluntary pension funds are favorable when talking about last year's exchange rate. On January 4<sup>th</sup> 2016, 1 euro was 121.145 RSD, but on December 30<sup>th</sup> 2016, it was 123.4723 RSD.(www.mojnovac.rs, currency rates)

Proportionally, growth of euro was 1.61% for the entire 2016, while inflation was 1.2% in 2016. On January 3<sup>rd</sup>, 2017, 1 euro was 123.8216 RSD, but on December 29<sup>th</sup>, 2017, 1 euro was 118.8281 RSD. Proportionally, the decline of euro was 4.2%, while inflation in 2017 was 3%.

According to data in the Chart 2 one can see positive movement in growth of net Funds estate from 16 billion RSD in 2012 to 33 billion at the end of 2016. The number of users in previous five years has increased from 179,868 in 2012 to 190,492 in 2015, but at the end of 2016 there were 6,000 users less.

In Serbia, the height of saving deposit in banks rises, although interests have been lower recently. Average interest in euros for a year in 2010 was 5.5%, while at the end of the last year it was less than 1%. According to the data of NBS, in the first nine months in 2016, foreign exchange savings increased for 208 million euros, so it was 8.5 billion euros (without saving of non-residents), at the end of September in 2017 foreign exchange

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savings was 9.3 billion euros, which means the increase of 0.3 billion euros. RSD savings in domestic banks was 49.3 billion RSD, which is triple than saving at the end of 2012. (NBS, 2018)

**Chart 2. Key indicators of voluntary pension funds in Serbia development**

Indicators	2010	2011	2012	2013	2014	2015	2016	2017
Number of comp. for managing voluntary pension funds	6	6	5	4	4	4	4	4
Number of voluntary pension funds	8	9	9	6	6	7	7	7
Number of users	166780	174868	179823	183508	187997	190492	183553	185445
Number of contracts	220451	234405	240369	244462	252072	25868	250460	253900
Net estate of funds in millions RSD	9,862.7	12,452.3	16,011.3	19,007.7	23,565.3	28,874.8	32,790.1	36,200.0

*Source: National Bank Serbia*

**Chart 3: Profitability of savings in a year period**

Kind of savings	Date of making fixed-term dep.	Init. dep.	Middle RSD course on 30 Sept. 2016	Dep. rate in % in a year	Date of maturity	Middle RSD course on 30 Sept 2017	Deposit at the end of fixed-term	Deposit at the end of fixed-term	
								In RSD	In EUR
1 Savings in RSD	30.9.16	100	123.29	3.0	30.9.17	119.36	102,99	102,99	863
2 Savings in EUR	30.9.16	811	123.29	0.5	30.9.17	119.36	814	97,185	814
3 Difference (1-2)								5,805	49
*Average weighted interest rate on RSD and EUR deposits fixed-time for a year									

For the same period of time, we can see that saving in voluntary pension funds gives the highest profit for the same amount of money, which proves that savings in voluntary pension mean safety for old-age.

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**Chart 4. Profitability of savings in voluntary pension funds**

Capital value FONDEX on September 30 <sup>th</sup> , 2016	2,535.49 RSD
Capital value FONDEX on September 30 <sup>th</sup> 2017	2,660.80 RSD
Deposit in voluntary pension funds 100,000-00 RSD (1)	
$100,000.00/2,535.65=39.44$ CV	
$39,44CV \times 2,660.70=104,941.96$ (2)	
Difference (1-2)	4,941,96 RSD

Source: National Bank Serbia

### 3. Conclusion and direction of further research

The functioning of retirement system in Serbia is stable because the state takes part in paying public retirement, but this way of functioning will not be sustainable in the future. It is the matter of time when the money that the state gives for pensions will be directed to other uses, and when public pensions will be decreased even to 50%.

In order to avoid effects of pension decrease, the state should, in time, indicate inevitability of different way of saving money for retirement, which means that it has to start thinking about investing in private pensions.

The directions of future research about this subject are related to the possibilities that trade associations (for example lawyers, doctors, journalists, police, army, etc.) form their own private pension funds and to be partly owners of companies that manage these funds. That is how they will be able to participate in placing their own invested cash assets, together with professional management.

The second possible direction of development and research is to establish a legislative regulation which will obligate one category of population to save money in private pension funds (for example, population at the age of twenty, which was born in 1998).

In the frames of the third column - Voluntary pension fund, it is necessary to carry into effect additional marketing and educational actions, so that the higher number of the employed will join the new system. It is also very important to pay attention to this column of voluntary pension system because of its importance for contingent introducing of the second column and for further making of the retirement reform in Serbia as well.

With the new solutions mentioned above, better relation of employment with higher number of the employed that pay contribution into voluntary pension funds (for example, 10% of the population may save in voluntary pension funds, nowadays it is 2%), the pensioners-to-be may expect safer and more certain future.

### References

- Kočović, J., Šulejić P., Rakonjac Antić T., (2010) *Osiguranje*, Beograd.  
Narodna banka Srbije, Sektor dobrovoljnih penzijskih fondova u Srbiji, *Izveštaj za četvrto tromesečje 2016. godine*  
Radojković, I., (2012) *Tokovi osiguranja*, Beograd  
Republički fond za penzijsko i invalidsko osiguranje, *Statistički godišnji bilten 2016.*, Beograd mart 2017  
Sl. glasnik RS“, br. 85/2005 and 31/2011  
Stanković A., (2017) Dunav DPF Beograd, *Prezentacija* Stanković A., (2017) Dunav DPF Beograd, Presentation , page 15

#### Document or database from the Internet, private or official website:

- [www.blic.rs](http://www.blic.rs)  
<http://www.blic.rs/vesti/ekonomija/godisnja-inflacija-u-srbiji-12-odsto-u-2016/8t0p364>, Accessed on 10 May 2017  
[www.croso.gov.rs](http://www.croso.gov.rs)  
[http://www.croso.gov.rs/lat/Statistika/Prosecna\\_zarada\\_penzija/](http://www.croso.gov.rs/lat/Statistika/Prosecna_zarada_penzija/), accessed: 16 June 2018  
[www.dunavpenzije.com](http://www.dunavpenzije.com)  
<http://www.dunavpenzije.com/vesti/stupile-na-snagu-izmene-i-dopune-zakona>, Accessed on 10 May 2017  
[www.mojnovac.rs](http://www.mojnovac.rs)  
[http://www.mojnovac.rs/vesti/kursna\\_lista.27.html](http://www.mojnovac.rs/vesti/kursna_lista.27.html), Accessed on 10 May 2017  
[www.nbs.rs](http://www.nbs.rs)  
[https://www.nbs.rs/internet/cirilica/62/62\\_pf.html](https://www.nbs.rs/internet/cirilica/62/62_pf.html), Accessed on 10 May 2017  
<https://www.nbs.rs/internet/latinica/15/mediji/vesti/20171027.html>, Accessed on 17 June 2018

## RAZVIJENOST DOBROVOLJNIH PENZIJSKIH FONDOVA U SRBIJI

**Rezime:** *Razvijeni sistemi penzijskog osiguranja funkcionišu kao trostubni, ali je kod nas uvođenje drugog stuba ostavljeno za „bolje dane“. Treći stub penzijskog sistema zasniva se na dobrovoljnosti. Tako se funkcionisanje penzijskog sistema odvija u tri međusobno povezana procesa: uplate u dobrovoljni penzijski fond, investiranje slobodnih sredstava, te naposljetku, programirane isplate – penzije. Stabilnost priliva u dobrovoljne penzijske fondove i predvidljivost isplata omogućavaju da se formira kvalitetan investicioni portfelj i ostvari dugoročan prinos od investicija. Ključ uspeha srpskih dobrovoljnih penzijskih fondova jeste u izgradnji poverenja građana u ovaj način štednje.*

**Ključne reči:** *penzijski sistem, dobrovoljni penzijski fondovi, finansijsko tržište*