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# DEVELOPMENT OF VOLUNTARY PENSION FUNDS IN SERBIA

REVIEW ARTICLE

**Abstract**

While developed pension insurance systems function in three pillars, in Serbia, the introduction of the second pillar is postponed until more favorable conditions for its development shall have been created.

The third pillar of the pension system is on a voluntary basis and functions in three related processes: payments to the voluntary pension fund, investment of available funds and scheduled payments - pensions. The stable inflow into voluntary pension funds and the predictable payments allow for the creation of a quality investment portfolio and realization of a long-term return on investments.

The key to success of Serbian voluntary pension funds is building confidence of the population in this type of savings.

***Key words:*** *pension system, voluntary pension funds, financial market*

## 1. Introduction

By the seventies of the last century, it became evident worldwide that the late, generally accepted *pay as you go* system of pension insurance financing started to show numerous drawbacks and will have to be inevitably reformed.

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*Pay as you go* system of financing pension insurance is based on a financial transfer from the current employed population to the retired population, meaning that the contributions paid during the year are used for the payment of pension benefits during the same year. This system functions well only in countries with rising economy, with the higher share of younger people in the population structure. The *pay as you go* system is sustainable as long as the contribution of 3 to 3.5 active insurers is allocated for the benefit of one pensioner. If this ratio changes and drops down to the contribution of 2.5 employees financing the benefits one pensioner, the system falls into crisis, which has happened in most countries with *pay as you go* system. The reason for this is, primarily, negative demographic trends (decrease in birth rates and increase in the number of elderly people), resulting in an increasingly unfavorable ratio between the number of employees and the number of pensioners.[3]

"Unless there is economic self-sustainability of a Public Pension Fund financed *by pay as you go* principle, the government will inevitably intervene as a financier, using general budget funds; In the case of insufficiency of such funds, the government will also use special taxes on tobacco, alcohol, petrol, luxury goods, etc."[4] The ratio between the number of employees and the number of pensioners in Serbia has come down to 1 : 1, the reform of the pension system, which has lasted for years, does not give the expected results. The state continues to participate in financing pensions, with the average public pension for February 2017 amounting to 23.809 dinars.[5]

In Serbia, mandatory and voluntary pension insurance is in force.

Private pension funds function as a *fully funded* financing system, often referred to as capital accumulation system or capitalized fund system. Basically, the amount of the pension depends on the amount of accumulated premiums (contributions) and the return on the invested premiums (contributions).[6]

At the end of the fourth quarter of 2016, there were 183,553 users in the accumulation phase[7]. It should be noted that the membership is divided into two phases - the accumulation phase (the period in which the funds are paid) and the withdrawal phase (the period when the member withdraws the accumulated funds).[8]

[3] Rakonjac Antić Tatjana, PhD, *Voluntary Pension Insurance - Actuarial and Financial Analysis*, Belgrade, 2004, p. 7-13.

[4] Kočović, Jelena, PhD, Šulejić, Predrag, PhD, Rakonjac Antić, Tatjana, PhD, *Insurance*, Publishing Center, Faculty of Economics in Belgrade, Belgrade, 2010, page 493.

[5] Republic Fund for Pension and Disability Insurance, Statistical Monthly Bulletin II/2017, Belgrade, April 2017, page 4.

[6] Kočović, Jasna, PhD, Šulejić, Predrag, PhD, Rakonjac Antić, Tatjana, PhD, p. 493.

[7] The number of users is the number of persons who are members of the voluntary pension fund (or funds), the National Bank of Serbia, the Voluntary Pension Funds Sector in Serbia, *Report for the Fourth Quarter of 2016*, page 12.

[8] National Bank of Serbia, Voluntary Pension Funds Sector in Serbia, *Report for the Fourth Quarter of 2016*, page 12.

The strategic goal in this area is the introduction of a sound multi-pillar pension system.[9]

## 2. Characteristics and Importance of Voluntary Pension Funds

By adopting the Law on Voluntary Pension Funds and Pension Plans, in September 2005 (the implementation began on April 1, 2006, while the first amendment was on May 7, 2011), legal framework was provided for the reform of the pension system in Serbia. This Law introduced the third pillar of pension insurance. Private pensions are completely independent, compared to the public pensions, and are based on the principle of personal accounts. Private pension contributions are invested in financial instruments that allow for the portfolio optimization and/or give the best ratio between the investment risk and rate of return. The voluntary pension contributions are invested in accordance with the legally stipulated investment principles, as follows:

1) the ***principle of security***, achieved by investing in securities of high-rating issuers;
2) the ***principle of portfolio diversification***, achieved by investing in various financial instruments (government bonds, corporate bonds, treasury bills, shares, bank deposits, mortgage bonds, etc.). Through applying various quantitative methods, horizontal diversification is performed, i.e., the choice of concrete securities from within the offered variety of instrument types. The most important issuers of financial instruments are the government, commercial banks, enterprises, local self-governments.
3) the ***principle of liquidity maintenance***, achieved by investing in securities that can be sold fast and purchased at a stable price. The Fund's objective is to have a sufficient percentage of liquid financial instruments in the portfolio in order to be able to meet its obligations at any time.[10]

Articles 31, 32, 33 and 34 of the Law on Voluntary Pension Funds and Pension Plans[11] have precisely defined where the assets of a voluntary pension fund can be invested.

The Fund members choose a fund in which to invest and/or the method and the amount of their contributions as well as the method of pension repayment. Currently, four voluntary pension fund management companies[12] operate in Serbia, managing seven voluntary pension funds.[13]

9 Radojkovic Ivan, MsC, *Insurance Trends*, Belgrade 2012, Number 3, page 41.

10 *http://www.dunavpenzije.com/saznajte-više/investiciona-politika/Investiciona načela*, visited on 27th April 2017**,** at 22:42

11 *Official Gazette of the RS,* Nos. 85/2005 and 31/2011

12 *https://www.nbs.rs/internet/cirilica/62/62_pf.html,* visited on 10. May 2017, at 21:49

13 *http://www.mojnovac.rs/fondovi.1.html,* visited on 10. May 2017, at 21:52

It should be noted that members of the Fund can begin withdrawing funds, starting from the age of 53 and/or 58, depending on when they *joined the Fund*.[14]

*Table 1. Membership, Assets and Rates of Return for Voluntary Pension Funds Operating in Serbia*[15]

| Company | Membership No. | Assets (in mil RSD) | Return (2016) | Return (2012–2016) |
|---|---|---|---|---|
| **Generali Basic** | 43.147 | 9.020,8 | 10,70% | 13,10% |
| **Generali Index** | 4.672 | 531,1 | 7,09% | 8,48% |
| **Raiffaisen Future** | 22.518 | 3.848,9 | 7,49% | 10,59% |
| **Raiffaisen Euro Future** | 1.488 | 34.8 | 7,05% | - |
| **DDOR Garant Ekvilibrio** | 60.048 | 5.247,3 | 7,37% | 11,16% |
| **DDOR Garant Savings** | 15.587 | 658,6 | 7,57% | 12,17% |
| **DUNAV** | 83.672 | 13.448,7 | 5,91% | 12,19% |

Sources: NBS Statistical Annex for December 2016 and Official Release of Companies' Return in the Politika Daily

It can be seen from the table that the total number of members at the end of the fourth quarter of 2016 was 231,132 (a member of the Fund may have several contracts in one Fund and in different Funds, thus the number of contracts is higher - 250,460), which means less than 5% of the population of the Republic of Serbia. This also means that the share of users of pension fund services in the total number of employees is 9.5%. The above data indicate a high development potential for this type of savings in the future.

Also, the data in the table show solid return on the invested funds, meaning that they have successfully invested the gathered contributions funds.

The rates of return of voluntary pension funds are favorable even if we take into account the exchange rate fluctuation in the past year. On January 4, 2016, one euro amounted to RSD 121,145[16], and on December 30, 2016, RSD 123, 4723[17]. Declared in percentages, the euro's growth was 1.61% throughout 2016, while the annual inflation in 2016 was 1.2%.[18]

[14] *http://www.dunavpenzije.com/vesti/stupile-na-snagu-izmene-i-dopune-zakona,* visited on 10. May 2017, at 22:02

[15] Stankovic Ana, „Dunav VPF Management Company" Belgrade, Presentation 5-4, 2017, page 15

[16] *http://www.mojnovac.rs/vesti/kursna_lista.27.html,* visited on: 10 May 2017, at 22:41

[17] *http://www.mojnovac.rs/vesti/kursna_lista.27.html,* visited on: 10 May 2017, at 22:43

[18] *http://www.blic.rs/vesti/ekonomija/godisnja-inflacija-u-srbiji-12-odsto-u-2016/8t0p364*, visited on: 10 May 2017, at 22:49

*Table 2. Key Development Indicators of Voluntary Pension Funds in Serbia*[19]

| Indicators | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|---|---|---|---|---|---|---|---|---|---|---|
| Number of voluntary pension fund management companies | 7 | 9 | 9 | 6 | 6 | 5 | 4 | 4 | 4 | 4 |
| Number of voluntary pension funds | 7 | 10 | 10 | 8 | 9 | 9 | 6 | 6 | 7 | 7 |
| Number of users | | 155954 | 165244 | 166780 | 174868 | 179823 | 183508 | 187997 | 190492 | 183553 |
| Number of membership contracts concluded | 158461 | 201610 | 215704 | 220451 | 234405 | 240369 | 244462 | 252072 | 25868 | 250460 |
| Net Assets of Funds in mil RSD | 3,045.6 | 4,640.6 | 7,188.2 | 9,862.7 | 12,452.3 | 16,011.3 | 19,007.7 | 23,565.3 | 28,874.8 | 32,790.1 |

Source: National Bank of Serbia

The information in Table 2 show positive growth trend of Funds' net assets from 16 billion dinars in 2012 to nearly 33 billion at the end of 2016. The number of users in the past five years grew from 179,868 in 2012 to 190,492 in 2015, only to record a downfall of more than 6,000 users at the end of 2016.

## 3. Reforms of Pension Systems in Countries in the Region

In order to adequately analyze development level of the voluntary pension insurance market in the Republic of Serbia, it is necessary to consider and compare the data with the surrounding countries. Therefore, we will present the basic characteristics of voluntary pension insurance in the Republic of Croatia and the Republic of Macedonia.

### 3.1. Basic Characteristics of Voluntary Pension Insurance in Croatia

The Pension and Disability Insurance System in the Republic of Croatia before 1998 comprised three funds:

[19] NBS Reports on the Voluntary Pension Funds Sector in Serbia for the fourth quarter of 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016.

- Employees Fund,
- Fund of Independent Entrepreneurs and
- Fund of Individual Agriculturers.

The average pension in Croatia in 1982 amounted to about 60% of the average salary, whereas the best ratio between the average pension and average salary was recorded in the period from 1987 to 1990, when the average pension amounted to three quarters of average salary. This ratio between pensions and salaries gradually declined after 1990, and in the period from 1995 to 1996, the average pension amounted to about 46% of the average salary, slightly increasing to 47% in1997/98. Observing the average level of pensions according to the type of pension, the scale in 1998 was as follows: disability, age, family pensions.

The Republic of Croatia, like most of the countries in the 1980s and 1990s of the past century, faced major problems in the functioning of pension insurance. The number of active insurers under the *pay as you go* system of pension insurance financing has been decreasing for years, while the number of beneficiaries of age, disability and family pensions has increased (by almost twice in the same period). Also, there were problems regarding the amount and regularity of payment of pension insurance contributions and consequential problems in the payment of pension benefits.

Namely, in this period, the amount of paid contributions decreased, not only because of the reduced number of employees, but also because many companies began to avoid paying contributions. The government had to use budget funds to cover the deficit in financing the pension insurance. This could be said to have been the period of fiscalization of the pension insurance, since pensions became increasingly financed from taxes. According to some estimates, about one-third of the funds for pension benefits were financed by the government. Namely, due to the downfall in the total gross domestic product (GDP) and the increase in the number of pensioners, the share of expenditure on pensions in the Croatian social product increased to approximately 14%. In 1999, by comparison, In the OECD countries, the average share of expenditure on pensions in *GDP* is 10%. The accumulation of such problems caused the inevitable reform of the pension insurance system in the Republic of Croatia in 1999.

There was a significant intervention in the functioning of the pension insurance in the Republic of Croatia in 1998, by adopting the Law on Pension Insurance[20]. Under a number of legal provisions, the age limit for retirement was raised to 65 years of age for men and to 60 women. The formula for calculating pension benefits was changed: instead of 10 years of best earnings, the new basis for calculation was the entire working life of an individual. There has also been a change in the indexation

[20] *Narodne novine*, Official Gazette of the Republic of Croatia, No. 102/1998

of pension benefits (previous adjustments were made in line with the changes in earnings, whereas current adjustments are made half according to earnings and half according to the living expenses), the retirement criteria were made stricter, etc.

The concept of Croatian pension reform, approved by the Croatian National Assembly by the adoption of the Pension Insurance Act, has been in place since 1999. The pension insurance system comprises three levels (parts) or pillars:

– Part I of the pension insurance ("the first pension pillar") is a mandatory pension insurance on the basis of generational solidarity. It is defined under the Law on Pension Insurance, which has been in force since 1999 and a few other laws and bylaws.
– Part II of the pension insurance ("the second pension pillar") is mandatory pension insurance based on individual capitalized savings,
– Part III of the pension insurance ("third pension pillar") is voluntary pension insurance, which is, like part II of pension insurance, based on individual capitalized savings.

The Part I of pension insurance works according to the already existing principles of current distribution (*pay as you go* system). It represents the mandatory insurance form - public pension insurance, since the holder of this type of insurance is a public institution: the Croatian Institute for Pension Insurance, which performs the most important business related to pension insurance. The mandatory character of this part of pension insurance refers to the fact that all employees and/or their employers, have a legally defined obligation to pay contributions for retirement insurance. Contributions of active insured under Part I of pension insurance are not capitalized and do not serve for later payment of pension benefits of these persons, but for the pensions of already retired individuals, which means that future pensions of the current active insured persons will be financed by contributions of the next generation of the insured.

Unlike the Part I, the insurance carriers under Part II of pension insurance are private legal entities. Insurance carriers are mandatory pension companies managing the mandatory pension funds, in which contributions are accumulated of those Insured who voluntarily and freely choose the pension Fund to entrust their contributions with.

In order to ensure business safety, the assets of mandatory pension funds are held on account with an authorized custodian bank. These banks monitor the value of the fund's assets and assess the success of its management. From the aspect of financing, the level II of pension insurance operates according to the principle of capitalization, i.e., contributions paid by the active insured, together with the return on investment of such contributions, serve to pay out the pension benefits of these same insured persons. The level of pensions depends on the amount of contributions and return on the invested funds, as well as the expected period of pension payment determined on the basis of the expected life duration of the insured person's generation.

Since the second level of pension insurance is a mandatory form of insurance, the government is responsible for its functioning and supervision and defines the regulation for this type of insurance. The state of Croatia has set up a special Agency for Supervision of Pension Funds and Insurance (HAGENA), which constantly monitors the operations of pension insurance entities and may adopt particular by-laws. A specific trait is the existence of a central government institution for collecting contributions and managing individual accounts of the insured, called the Central Registry of the Insured (REGOS). The task of REGOS is to collect contributions from employees and employers and forward them to the mandatory pension fund selected by the insured. Another goal of establishing the REGOS is to upgrade the collection of contributions (if its activity is extended to the first level), and there is a possibility for monthly income tax monitoring.

In Croatia, the third level of pension insurance is also defined. The key difference in relation to the second level is that participation, in the third level of pension insurance, is based on the principle of voluntariness. Another significant difference in relation to the first and the second level refers to the definition of the insured. Namely, in the third part of the pension insurance the insured person does not have to be engaged. Within this insurance level, the insured can be any adult with permanent residence in the Republic of Croatia. Only in the case of pension schemes defined by employers or employees, a specific membership requirement may be stipulated (e.g. members may only be employed by that company and employers). Like the second, the third level of pension insurance operates on the basis of capital coverage, the funds are kept on individual pension accounts – this is "defined contribution plan". In the third level of pension insurance, the difference is also made between the period of saving for retirement and the period of payment of pensions. During the period of savings for retirement, the insurance carriers are voluntary pension companies that manage voluntary pension funds. In addition to voluntary pension companies, founders of a voluntary pension fund may be a pension insurance company or "sponsors" (employer, trade union, etc.)[21].

*Table 3. Key Development Indicators of Voluntary Pension Funds in Croatia in 2016*

| | |
|---|---|
| Number of voluntary pension fund management companies | 4 |
| Number of voluntary pension funds | 27 |
| Membership No. | 246,246 |
| Total property of funds in kunas | 3.2 billion |
| Return achieved by the fund | 5,80% |

Source: www.hanfa.hr

[21] Jelena Kalajdžić, Voluntary Pension Funds as Institutional Investors, Master Work, University of Niš, Faculty of Economics in Niš, July 2017, pages 25, 27, 28, 29 and 30.

### 3.2. Basic Characteristics of Voluntary Pension Insurance in Macedonia

By adopting the Law on Amendments to the Law on Pension and Disability Insurance[22] in March 2000, a multi-layer pension system was established in Macedonia. One of the urgent reasons for the introduction of the new system were the difficulties in the previous functioning of pension insurance, which would be particularly visible in the future (due to poor demographic characteristics). In 1997/98, the situation in the Republic of Macedonia was such that two employees financed the retirement income of one pensioner, and in 2000, 1.4 employees financed the pension of one pensioner.[23]

In addition to the system of „intergenerational solidarity", the newly formed pension insurance system in Macedonia included a system of capital-funded pension insurance and consisted of three levels or, in other words, three pillars:

1) Mandatory pension insurance, operating according to the *pay as you go* principle,
2) Mandatory pension insurance based on capitalized savings,
3) Voluntary pension insurance based on capitalized savings, that can only be realized, at present, within the scope of insurance companies' proposals.

Voluntary pension insurance in Macedonia (third pillar) is the insurance based on capitalization of funds, following the principle of defined contributions, but on a voluntary basis. All persons wishing to provide for a higher level pension insurance and/or all other persons not covered under mandatory insurance (in the first and second pillars) can be included.

Each person may have one voluntary individual account and one professional account in a voluntary pension fund. Accumulated funds are invested according to strictly defined legal regulations, which ensures maximum protection of interests of the insured persons and their property.

Members are regularly informed about their own funds intended for retirement days.

There is no limit on the amount and frequency of voluntary contributions for members of the third pillar.

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[22] Official Gazette of the Republic of Macedonia No. 24/2000

[23] Survey "How does the life of pensioners look like in the neighbouring countries? " Politika Daily, February 18, 2000, p. 10.

*Table 4. Key Development Indicators of Voluntary Pension Funds in Macedonia in 2016*

| | |
|---|---|
| Number of voluntary pension fund management companies | 2 |
| Number of voluntary pension funds | 2 |
| Membership No. | 68.324 |
| Total property of funds in denars | 5,758 million |
| Return achieved by the fund | 6.29% |

Source: www.mapas.mk

### 3.3. Comparative Overview of Performance Indicators in Serbia, Croatia and Macedonia

Based on data presented in the Tables 3 and 4 and the results of comparison with the data in Table 2 on key performance indicators and trends in voluntary pension insurance in Serbia, it can be concluded that there are great similarities, but also significant differences between the mentioned systems. It can be noted that the number of VPF management companies in Serbia and Croatia, at the end of 2016, was the same - 4, while in Macedonia this number was twice less -2; The number of voluntary pension funds in Croatia was much higher (27) compared to Serbia (4) and Macedonia (2). When it comes to comparing the membership of VPFs, it is similar in Serbia and Croatia, while in Macedonia is much smaller (231,132 in the Republic of Serbia, 246,246 in the Republic of Croatia and 68,324 in the Republic of Macedonia). Also, it should be noted that the total assets of the funds in Serbia amounted to 32.790 million dinars, in Croatia 3.2 billion kunas or 51.200 million dinars and in Macedonia 5,758 million denars or 11,516 million dinars. Finally, with regard to fund returns in 2016, they amounted to 7.6% in Serbia, 5.8% in Croatia and 6.3% in Macedonia. Given the above data, one can expect an increase in the number of voluntary pension funds, an increase in the value of the assets of the funds in Serbia and the introduction of the second pillar of pension insurance, i.e. mandatory private pension insurance.

## 4. Conclusion and Directions of Further Research

Functioning of the pension system in Serbia is stable because of government interventions in the payment of public pensions. In the long run, however, such functioning shall not be sustainable. It is only the matter of time when the government funds, allocated for the payment of pensions, will be directed to other purposes and the public pensions reduced by 50%.

In order to avoid the consequences of a drastic downfall of pensions, the government should timely point to the inevitability of finding a different way of providing money for the days when citizens retire, i.e., they have to start considering investing into private pension funds as a form of savings for a more comfortable future.

The directions of future research on this topic relate to the possibility that professional associations (e.g. lawyers, doctors, journalists, the police, the military, etc.) begin to establish their own private pension funds through partial ownership of the companies that manage the funds. In this way, in cooperation with professional management, they could actively participate in the placement of their own funds.

Another possible direction of development and research is the adoption of legal regulations, obliging a particular category of population to save in private pension funds (for example, the twenty years old population and/or those born on 1997, from the current point of view).

In Serbia, the amount of savings deposits in banks constantly increases, although interest rates on savings decreased in the past few years. The consecutive tendency of lowering the interest on deposits has lasted for years - the average interest rate on one-year euro time deposits amounted to 5.5% in 2010, while at the end of the last year, it was around 1%. According to the National Bank of Serbia (NBS)[24] data, the foreign currency savings of the local population amounting to 208 million euros, increased in the first nine months of 2016, so that its total amount was 8.5 billion euros (excluding non-residential savings), which is twenty-five times more than savings in voluntary pension funds.

As regards the third pillar, voluntary pension insurance, it is necessary to introduce additional marketing and educational activities so as to include as many employees as possible in the new system. Also, it is very important to pay greater attention to this pillar of the pension system, because of its importance for the possible introduction of the second pension pillar, as well as the creation of a framework for pension reforms in Serbia.

With the aforementioned new solutions and a better employment ratio and with the increase in the number of members who pay contributions to private pension funds (for example, 10% of the population saving in private pension funds), future pensioners in Serbia may expect a safer and more certain future.

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