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MACROECONOMIC AND REGULATORY FRAMEWORK FOR INVESTMENT ACTIVITIES OF VOLUNTARY PENSION FUNDS IN SERBIA[3]

JEL CLASSIFICATION: E44, G23, G18, J32

ABSTRACT:

In current circumstaneces on global markets, maintaining financial systems stability is one of the most important goals of economic policy makers. Innovations and technological advancements have greatly influenced the growth of the global economy. Nevertheless, they also brought numerous challenges and uncertainties. The financial system of the Republic of Serbia is bank-centric and still underdeveloped, and with the problems it is exposed to in today's economic environment, it also faces the great challenge of maintaining stability and prosperity. Voluntary pension funds, as significant players in the domestic financial market, face the same uncertainty, with particular reference to the environment of record low interest rates on government securities, given that the hold-

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3 Irena Janković acknowledges support from the Ministry of Education, Science and Technological Development of the Republic of Serbia.

ings of these economic players are predominantly invested in these financial instruments. The aim of this paper is to present the macroeconomic and regulatory framework for the operation of voluntary pension funds in the Republic of Serbia and their ability to invest assets toachieve the highest possible return for its members without exposing them to high risk, the current situation in this market segment, as well as to show similarities and differences in terms of its functioning in the local market and in selected countries of the European Union. By developing this part of financial services, economic and social policy makers could further stimulate market competition, affect acceleration of economic growth and raise the standard of living of the population.

KEYWORDS:
FINANCIAL MARKET, VOLUNTARY PENSION FUNDS, LEGAL FRAMEWORK, HARMONIZATION WITH EU REGULATIONS

1. INTRODUCTION

The financial market of the Republic of Serbia is one of the segmented and still underdeveloped financial markets. This situation is the result of a series of regulatory changes over the past decades and the fact that the local financial system is bank-centric. Banks in the Republic of Serbia are organized as universal type banks. The current situation significantly affects the possibility of penetration and occupation of an adequate place in the financial market by other financial institutions, such as voluntary pension funds, which play a significant role in the development and functioning of the financial system of an economy.

Facing the aging of the population, most EU Member States have taken steps to reform their public pension systems in order to maintain the sustainability of their public finances. Although significant progress has already been made, many Member States will have to do even more given the long-term trends they face. Simply put, the choice is to accept either a further increase in retirement age or to reduce the scope of public pension plans.[4]

In this regard, this paper will show macroeconomic environment in which voluntary pension funds operate in Serbia, the regulatory framework to which they must adjust their functioning, but also certain indicators of business success and investment of assets, bearing in mind the current state of the local financial system. Also, some of the similarities and differences of the system of voluntary pension funds in Serbia and some selected EU countries will be presented in the paper, with special reference to the potential for taking over "good practice" bearing in mind that the Republic of Serbia is in the EU accession process.

2. MACROECONOMIC INDICATORS

Numerous macroeconomic indicators of a good investment climate can be observed in the Republic of Serbia in 2019 and in the first quarter of 2020. First of all, this refers to solid economic growth, a sustainable fiscal deficit, lower public debt, increased employment and low inflation. However, the share of investments in gross domestic product is still low. In 2018, it was only 20%, same as in the first half of 2019.[5] The following table shows the basic macroeconomic indicators, according to the latest available data.

4 European Commission (2017), *A Pan-European Pension Product - Filling the Pensions Gap and Refinancing the Economy*. European Political Strategy Centre, Issue 26, p. 1.

5 Foreign Investors Council (2019), *White Paper: Proposals for Improving the Business Environment in Serbia*, Belgrade, p. 15.-16.

TABLE 1: BASIC MACROECONOMIC INDICATORS, REPUBLIC OF SERBIA, 2015-2020

	2015	2016	2017	2018	2019	Q1 2020
Real GDP growth (in %)[1)]	1.8	3.3	2	4.4	4.2	5
Consumer prices (in %, relative to the same month a year earlier)	1.5	1.6	3	2	1.9	1.3
Unemployment according to the Survey (in %)	17.7	15.3	13.5	12.7	10.4	9.7
Wages (average for the period, in EUR)[2)]	367.9	374.5	383.9	419.7	465.9	503.98
RS budget deficit / surplus (in % of GDP)[3)]	-2.7	-0.2	0.7	0.6	0.2	-3.62
RS public debt, (central government, in % of GDP)[4)]	70	67.8	57.9	53.7	52	51.9
RSD/USD exchange rate (period average)	108.85	111.29	107.5	100.28	105.28	106.57
RSD/EUR exchange rate (period average)	120.73	123.12	121.34	118.27	117.85	117.57

1) At constant prices of previous year.

2) Since 2017, wages are shown according to the new methodology and data are based on Tax Administration evidence. For conversion of wages from RSD to EUR is used the average of the period RSD/EUR exchange rate.

3) Republican deficit (since 2008) includes the payment of activated guarantees, recapitalization of banks and taking on debt, according to the IMF methodology.

4) Data on the share of public debt in GDP were downloaded from the website of the Ministry of Finance.

Source: National Bank of Serbia

In terms of the country's investment risk, Serbia has reached the stage of obtaining its first investment rating, according to Fitch (BB +), while these outlook are positive, but still three steps away from the investment rating, according to Moody (Ba3). Standard & Poor's recently reaffirmed Serbia's credit rating for long-term domestic and foreign currency borrowing at BB+, and confirmed its positive outlook for further improvement. An increase in the credit rating is an indicator of the economy's resilience to external shocks, the aforementioned significant improvement in macroeconomic indicators, adequate monetary policy of the National Bank of Serbia and sound fiscal discipline.

The capital market in Serbia can be characterized as shallow and relatively underdeveloped. A market segment that is more active than other segments is the government bond market. The institutional investor base is small, the investment funds sector also, while the share of total assets of voluntary pension funds in gross domestic product at the end of 2018 was only 0.8%.[6]

The process of harmonization with European Union regulations began a few years ago and concerns a number of areas of legislative and regulatory reform that will also affect the capital market. On the one hand, the new regulations will have to be harmonized with the acquis communautaire, while on the other they will have to take into account local, national, specificities.

6 OECD (2019), *Pension Markets in Focus*, p. 73.

3. THE FINANCIAL SYSTEM OF THE REPUBLIC OF SERBIA AS A FRAMEWORK FOR THE DEVELOPMENT OF THE VOLUNTARY PENSION FUNDS SECTOR

The financial market of the Republic of Serbia is an open market, with existing staff and technical equipment, as well as favorable legislative protection. However, the development of this market has slowed down, both due to the lack of large investors and market participants and the consequences of the latest global financial crisis.

The financial crisis of 2008, as well as the environment of low growth and falling inflation, have led to long-term low interest rates, which have been further amplified by quantitative easing in several large global economies. This low interest rate environment, which is expected to prevail in the foreseeable future, poses serious challenges for both the insurance and the entire pension system, including voluntary pension funds. Given the importance these institutions play in mobilizing long-term capital, this could have serious implications for their role in successfully acting as long-term investors and potential leverage for stabilization within the global financial system.

"During the 1970s and 1980s, one of the main sources of foreign capital for the Socialist Federal Republic of Yugoslavia was the saving of its citizens, and especially of citizens abroad. Recognizing the importance of these financial sources, the monetary authorities of the SFRY held interest rates at attractive levels - much higher than in many Western European countries. For years, this country, which has lived by Eastern principles and Western standards, has managed to maintain the semblance of financial and economic stability. Under the socialist regime, all banks were under state control and thus major investment decisions could not be made without political approval, and thus profit was not the main criterion for most investment decisions."[7]

The banking sector today is comprised of 26 banks, of which only 7 are majority owned by domestic entities (private individuals and the Republic of Serbia), and as many as 19 are majority owned by foreign entities, with participation of 76.5% of the total balance sheet of the sector.[8] It should be noted that literature and empirical evidence, especially when it comes to the Balkan banking systems, indicates that foreign-owned banks perform better than domestically owned banks, mainly because of knowledge transfer and better corporate governance[9], which means that domestic banks are left with less space to penetrate and occupy the market. Considering this fact, as well as the aforementioned assertion that banks are the dominant players in the domestic financial market, this is certainly not a favorable direction for the national economy. In line with the aforementioned trends, it is also likely that households will adjust their savings behavior, given demographic developments and the growing need to secure retirement income.[10]

7 NBS (2005), *Bond Markets in Serbia: regulatory challenges for an efficient market*. Jefferson institute, p. 3.

8 NBS (2019), *Banking Sector in Serbia: Report for the Second Quarter of 2019*, p. 3.

9 Jolevska, D. E., Andovski, I. and Jolevski, Lj. (2018), The impact of ownership of banks on their performance: case study of sample of Balkan countries. Ekonomika, 64(3), p. 60

10 Working group chaired by Ignazio Visco, Central Manager for International Affairs at the Banca d'Italia, (2005, September), Ageing and pension system reform: implications for financial markets and economic policies. p. 16

When it comes to the Serbian capital market, it has a small number of various securities that are actively traded, so that the trading volume is also much lower than that present in developed countries. In addition, the capital market in Serbia is essentially still quite isolated from other capital markets in the world, as evidenced by the fact that the trading of Serbian securities outside the country, as well as the trading of foreign securities in the country, is still restricted by law.[11]

The capital market began a special phase of development through a mass privatization program, involving almost 4,000 companies, and until recently there were no initial public offerings (hereinafter: IPOs) on the stock market. It was not until October 2018 that Fintel Energy a.d. Belgrade successfully completed the first IPO in Serbia since 1940. More than 1.5 million shares were issued on that occasion.

Considering the above, we can conclude that among the most important problems of the capital market are the few listed companies on the Belgrade Stock Exchange, the lack of IPOs and the lack of sufficient liquidity, as well as trading of listed companies, which is often characterized by a high concentration of ownership.

In January 2018, the Belgrade Stock Exchange launched the so-called IPO Go! The project, supported by the European Bank for Reconstruction and Development, aims to launch and support a number of IPOs. The main objective of the project is to increase the supply of securities and alternative investments in the stock market.

The Belgrade Stock Exchange, where the supply and demand for securities meet, has a long tradition, since it was founded in the 19th century.[12] However, despite its long tradition, the stock market in our country is not nearly as developed as the world's leading stock exchanges in London, Frankfurt, New York, and the like. Market capitalization of the regulated market of the Belgrade Stock Exchange and MTP is over 478 billion dinars[13], or over 4.1 billion euros, while, for example, the market capitalization of the Frankfurt Stock Exchange is about 2 trillion US dollars[14], ie. about € 1.8 trillion. This data shows how small the domestic market is compared to the markets in developed countries of the world.

Also, mistrust and lack of investor education, as well as lack of knowledge of the basic features of financial products, may not be the biggest, but significant obstacles that slow down the pace of financial market development that causes potential investors to avoid this type of business. This has a broader implication, in terms of insufficient portfolio diversification, and therefore of risk, whereby business risk is increased as the movement of funds is knowingly and unjustifiably curtailed. A partial solution lies in additional training to reduce information asymmetry and make information more widely available, thus accelerating the development of the overall financial system.[15]

11 Prokopijević, M. (2006), *Capital Market in Serbia*, Institute for European Studies. Belgrade, p. 14.

12 https://www.belex.rs/, accessed 03/08/2020.

13 https://www.belex.rs/, accessed 03/08/2020.

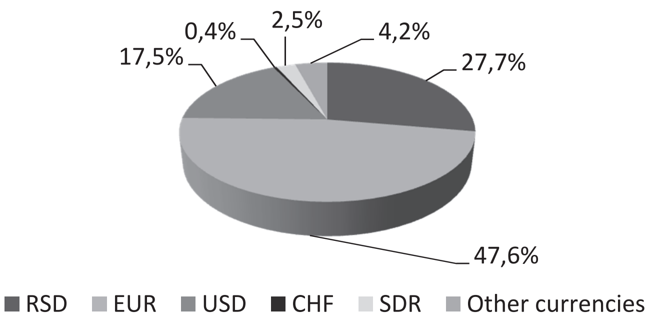
14 https://capital.com/the-frankfurt-stock-exchange, accessed 18/12/2019.

15 Malešević, Z. *Openness of the Financial Market of the Republic of Serbia for Integration with the Financial Markets of EU Countries.* School of Business, No. 4/2011, p. 94-95.

The government bond market plays a significant role in supporting the development of the overall financial system, providing information on the yield curve and benchmark prices for the valuation of investment portfolios and for the development of private sector instruments such as corporate bonds. In addition, a stable and developed government bond market facilitates financial intermediation, making it easier for the private sector to issue debt at a lower cost and risk.[16]

The public debt of the Republic of Serbia is extremely exposed to foreign exchange risk. At the end of May 2020, foreign currency debt represented more than 70% of public debt, which can be seen in the following graph.

CHART 1: CURRENCY STRUCTURE OF THE PUBLIC DEBT OF THE REPUBLIC OF SERBIA



Source: Ministry of Finance, Public Debt Administration, Monthly Report for May 2020.

The participation of the state in improving the economic environment and the incentives it provides to market participants is evidenced by the fact that the plan is to develop a system of so-called "primary dealers", which would mean that the primary sales business is entrusted to professional financial institutions, which ensures the continued placement of the planned volume of bonds issued and increases the liquidity of the secondary market. Voluntary pension funds that primarily place assets in this asset class could benefit significantly from this movement in the government bond market.

In line with these developments at the national and international levels, we can conclude that the domestic financial system is facing the great challenge of maintaining stability and prosperity, and therefore voluntary pension funds, as institutional investors and significant participants in it, are also facing this challenge. However, further efforts can be made by joint efforts of regulators and market participants.

16 World Bank Group, Republic of Serbia (2019), *Technical note: Capital Market Development*, p. 25.

4. AMENDED LEGAL FRAMEWORK IN LINE WITH EU REGULATIONS

An aging population and a desire to preserve the relative standard of living of retired people creates challenges for the sustainability of both publicly funded and privately funded pension schemes, such as voluntary pension funds. These funds, as a form of long-term savings for old age, but also significant participants in the financial market, contribute to the economic growth and social security of the population. Their importance becomes even greater if changes in the labor market are taken into account, where more and more people are employed as part-time employees and the number of self-employed persons is also increasing. Total labor supply in the European Union is projected to almost stabilize between 2013 and 2023 (age group 20-64), while it will decline by 8.2% between 2023 and 2060, which is approximately 19 millions of people.[17] All this poses significant challenges to the sustainability of the social protection system and contributes to raising awareness that such financial products, such as investing in voluntary trust funds, are increasingly needed as a supplement to old-age income.

The rapidly growing interconnectivity of global financial, productive and labor markets poses new challenges for maintaining or advancing social justice. In a world where the financial and economic crises in any region are highly contagious, and their effects on labor markets and social well-being are expanding rapidly, individuals' ability to cope with economic risks alone is less effective than before. National social security systems need to be stronger than ever to counteract additional systemic global risks.[18] Considering this situation at the global level, as well as the fact that the purpose of establishing insurance in the legal and economic environment of a country is precisely to ensure that the realization of some adverse circumstances will not impair the quality of functioning, it is surprising why such financial services, including voluntary pension funds, are not more attractive to the population, especially in underdeveloped and developing countries.[19]

More recently, progress has been made in this area with regard to the legal framework governing this sector. Bearing in mind that in our country, according to the regulations, there is no voluntary pension insurance as recently stated in the Law on Pension and Disability Insurance (Official Gazette of RS, No. 34/2003, 64/2004 - decision of the USRS, 84 / 2004 - other law, 85/2005, 101/2005 - other law, 63/2006 - USRS Decision, 5/2009, 107/2009, 101/2010, 93/2012, 62/2013, 108/2013, 75/2014, 142/2014, 73/2018, 46/2019 - US decision and 86/2019; hereinafter referred to as the PIO Act), but voluntary pension funds and pension plans, it was necessary to adjust the regulations to the real situation. In this sense, this year, by amendments to the PIO Act, it is defined that the pension system of the Republic of Serbia in addition to the mandatory forms of insurance also comprises voluntary pension funds and pension plans regulated by a separate law. In this way, the importance of these financial intermediaries, now recognized as such in the regulatory framework, is recognized.

17 The 2015 Ageing Report (2015), *Economic and budgetary projections for the 28 EU Member States (2013-2060)*. Brussels, European Economy series, p. 2.

18 International Labour Conference (2011), *Social security for social justice and a fair globalization*. ILC.100/VI, Geneva, p. 15-16.

19 Knežević, M. and Đurić, Z. (2019), Some aspects of insurance development in Serbia. Ekonomika, 65(2), 39

As of June 27, 2019, the Republic of Serbia has opened negotiating Chapter 9 as part of the process of accession to the European Union, which deals with financial services. Although the upcoming negotiation process also carries some risks, the effects expected from the alignment of national financial services legislation with EU regulations will have a positive impact on voluntary pension funds, which, as institutional investors, represent significant players in the financial market.[20]

Chapter 9 - Financial Services covers several areas of financial services, from banks and financial conglomerates, through insurance companies and voluntary pension funds, to financial stability and protection of consumers, investors and policyholders. In the context of voluntary pension funds, alignment with Directive 2016/2341 / EU of the European Parliament and of the Council of 14 December 2016 will make significant changes to the rules for investing the assets of these financial institutions, while risk management is central to the said Directive. In this regard, after compliance with EU regulations, funds will, among other things, have to carry out their own risk assessment. Changes to investment policies will be made to facilitate cross-border activities, while the supervisory responsibilities of these participants in the financial system will be enhanced to better share information.

The following table provides a comparative overview of investment restrictions placed on voluntary pension funds in Serbia and in some selected EU Member States, to show differences in the regulatory environment in which these funds operate in our country and abroad.

Alignment with the regulatory framework of the European Union will be done taking into account the national specificities of the financial system of the Republic of Serbia, so the changes are expected to have a beneficial effect on the operation of voluntary pension funds and open up opportunities for them to freely and creatively place the collected contributions, and thus to achieve better business performance.

5. VOLUNTARY PENSION FUNDS MARKET IN SERBIA

Voluntary pension funds have been operating in Serbia since 2006. This is a relatively young segment of the financial sector, which expects its progress only in the coming years, when the country completely overcomes the consequences of the 2008 global economic crisis and the 2010-2012 Eurozone debt crisis. The voluntary pension funds market in Serbia currently consists of four management companies tasked with managing the assets of seven voluntary pension funds, one custodian bank, five intermediary banks and one insurance intermediary, as can be seen in the following figure.

It should be noted that management companies are formed as companies that organize and manage voluntary pension funds, while voluntary pension funds are collective investment institutions which collect and invest pension contributions in various types of assets with the aim of achieving an adequate return while maintaining the risk at an

20 Papic, M. (2019), *Functioning of voluntary pension funds in Serbia: characteristics, problems and perspectives*. Unpublished master's thesis, Faculty of Economics, University of Belgrade, Belgrade, Serbia

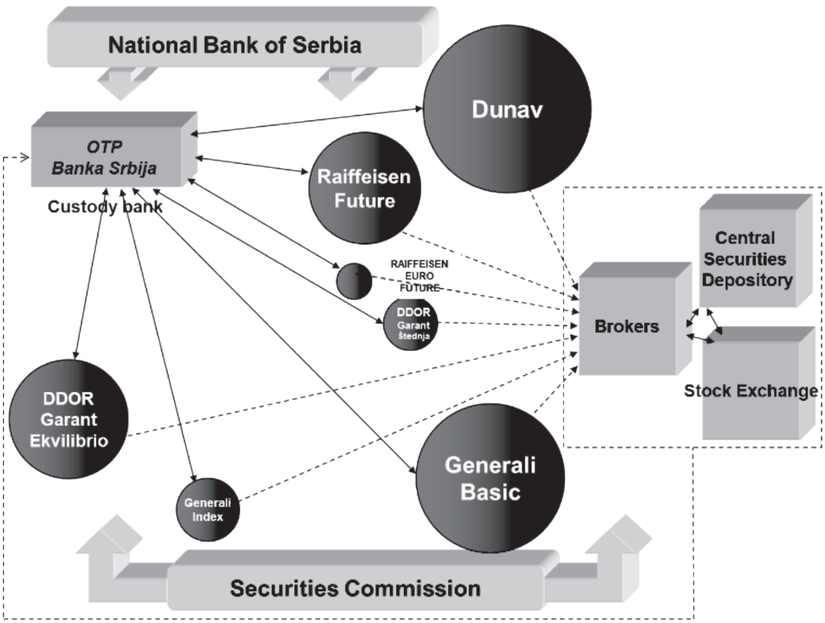
TABLE 2: COMPARATIVE OVERVIEW OF INVESTMENT RESTRICTIONS IN THE REPUBLIC OF SERBIA AND SELECTED EU COUNTRIES

COUNTRY	FUNDS / PLANS	EQUITY	REAL ESTATE	BILLS AND BONDS ISSUE D BY PUBLIC ADMINISTRATION	BONDS ISSUED BY THE PRIVATE SECTOR	INVESTMENT FUNDS	LOANS	BANK DE POSITS	OTHER
Serbia	Voluntary pension funds	up to 40% (Direct)	up to 5% (Direct)	up to 100%	up to 50%	up to 5% for investment units of open investment funds	0%	up to 35%	Up to 10% may be invested in depositary receipts issued by banks headquartered in the Republic of Serbia or EU/ OECD member states
Belgium	IORP (institutions de retraite professionnelle)	up to 100%	up to 100%	up to 100%	up to 100%	up to 100%	up to 100%	up to 100%	-
Estonia	Voluntary funded pension	up to 100%	70% (Total exposure) 20% (Direct)	up to 100%	up to 100%	up to 100%	up to 10%	up to 100%	-
Latvia	Private pension funds (voluntary)	up to 100%	up to 15%	up to 100%	up to 100%	up to 100%	0%	up to 100%	At least 70% of all investments in financial instruments shall be invested in securities or money market instruments traded on a regulated market.
Slovak Republic	Voluntary personal pension plans - contributory pension funds	up to 100%	up to 10% - shares/ units of "special realestate fund", up to 25% in mortgage bonds issued by one bank	up to 100%	up to 100%	UCITS funds: each max. 20%; non-UCITS funds: each max. 10%	0%	up to 20%	-
	Voluntary personal pension plans - pay-out pension funds	0%	up to 25% in mortgage bonds issued by one bank	up to 100%	up to 100%	UCITS funds: each max. 20%	0%	up to 20%	-
Croatia	Open-ended voluntary pension fund	up to 100%	0%	up to 100%	up to 100%	UCITS funds: max. 10%; AIFs: max. 5%	0%	up to 100%	-
	Closed-ended voluntary pension fund	up to 100%	up to 100%	up to 100%	up to 100%	UCITS funds: max. 10%; AIFs: max. 5%	0%	up to 100%	-

UCIS: Undertakings for the Collective Investment in Transferable Securities
AIFs: Alternative Investment Funds
Source: OECD (2018), Survey of Investment Relugation of Pension Funds

acceptable level. The sector of voluntary pension funds in Serbia is somewhat specific in that the funds do not have the status of legal entities, but are funds of a special type whose assets are owned by members and are legally separated from the management company's assets.

FIGURE 1: VOLUNTARY PENSION FUNDS MARKET IN THE REPUBLIC OF SERBIA



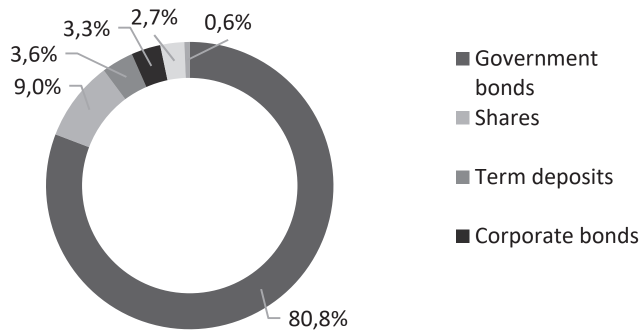
Source: National Bank of Serbia

The voluntary pension funds sector consists of dinar and foreign currency funds. Dinar funds aim to provide income in addition to the state pension for their members. They are intended for those who want optimal returns with moderate risk exposure as well as long-term inflation protection. Foreign currency funds have the same purpose as the dinar ones, but are primarily intended for those who want to hedge against the dinar exchange rate fluctuations against the euro. These are, first and foremost, funds that aim to preserve assets in euros.

At the end of the first quarter of 2020, the net assets of the funds amounted to RSD 44.6 billion. In this quarter, net assets decreased by 1.3% compared to the fourth quarter of 2019, mainly due to the price volatility of the most liquid shares listed on the Belgrade Stock Exchange all due to the increased uncertainty caused by the coronavirus pandemic (COVID-19) The change in the value of net assets is influenced by several factors, given the area of business of these funds, among other factors those are net payments into the funds, disbursements of funds from the funds and profit generated by the funds in the framework of investment activities. Despite the steady growth in the value of the sector's net assets in previous years, the industry's share in gross domestic product is still below 1%.

When it comes to the assets structure of voluntary pension funds, what can be seen as a long-term trend is their investment in government bonds as a form of safe investment. Thus, in the first quarter of 2020, government securities accounted for the largest share of total assets, at sector level, accounting for 80.8% of total assets. Nevertheless, it can be observed that the share of government securities in the assets of the funds has decreased in recent times. The decrease in exposure to this asset class is the result of the maturity of individual RSD / EUR bond series, coupon collection, price growth of stock portfolios, and the diversion of cash to other asset segments. The structure of assets of voluntary pension funds can be seen in the following graph.

CHART 2: STRUCTURE OF ASSETS OF VOLUNTARY PENSION FUNDS AS OF 31.03.2020.



Source: National Bank of Serbia

We can compare the interest of voluntary pension funds in investing in government bonds versus stocks. Exposure to stock price risk depends predominantly on the development of supply and liquidity of the domestic stock market. In the situation as it is today, the risks of investing in domestic stocks have been increased due to the shallow and illiquid market and the strategic commitment of the funds is to make the participation of these risky assets in the assets significantly smaller. Strategic investment allocations define the investment focus on debt securities with minimal risk exposure to stock price changes.

The average maturity of funds invested in government debt instruments increased in the first quarter of 2020 from the same quarter of the previous year, from 3.6 to 4.9 years. Government bonds with a maturity of 2 to 5 years account for the largest share, with over 46% of government bond portfolios, followed by bonds with a maturity of 5 to 10 years with a share of around 21%.[21] This indicates a predominance of long-term government securities, which is somewhat expected, given that interest rates are higher for bonds that are in higher maturities in accordance with the maturity structure for government securities.

The currency structure has remained relatively unchanged in the last year. The movement of the RSD / EUR currency pair had the largest effect on funds that almost exclusively invest funds in euro-indexed assets, and in the observed period, the euro depreciated against the dinar. Exposure of the assets of funds to this foreign currency increased from

21 NBS (2020), Voluntary pension funds sector in Serbia, *First Quarter Report 2020*

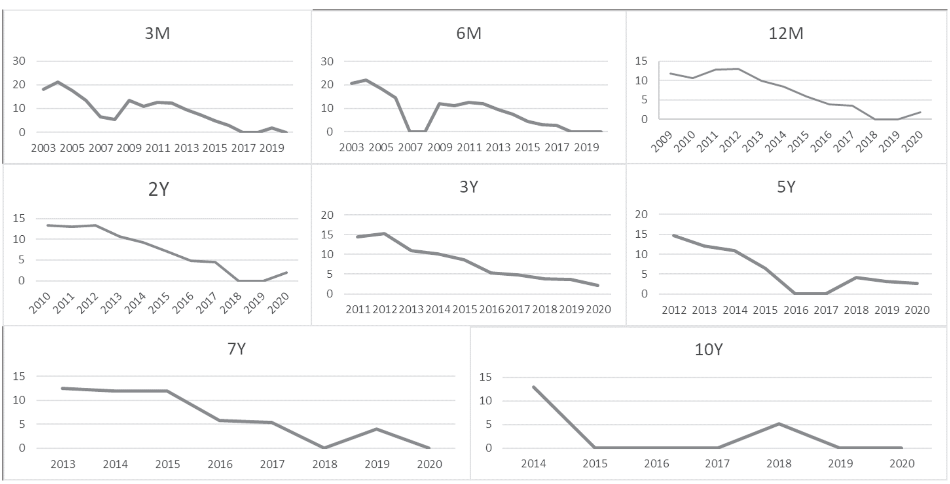
12.8% at the end of the first quarter of the previous year to 14.0 % at the end of March this year.

The National Bank of Serbia has formed an index called FONDex, which is used to monitor the value movement of investment units of all voluntary pension funds on the market. This index is a unique indicator of the trend of the voluntary pension fund system and started to count on November 15, 2006, the day that marked the beginning of the first fund. The initial value was 1,000, and at the end of the first quarter of 2020, FONDex reached the value of 2,999.19.

The increase in FONDex represents the weighted average value of the investment units of all funds, and at the end of the first quarter of 2020 it was 2.6% for the last year, 7.1% for the last five years and 8.6% since the beginning of operations. However, the FONDex increase at the end of the first quarter of 2019 was 6.4% in the last year, 9.0% in the last five years and 9.1% since the beginning of business, which points to the downward trend of this indicator and the need to consider new ways to achieve a satisfactory level of return on assets of the funds. It should also be noted that the increase in FONDex for the last year is mostly a consequence of the global pandemic, which significantly affected the deterioration of the yield performance of all financial institutions, including voluntary pension funds.

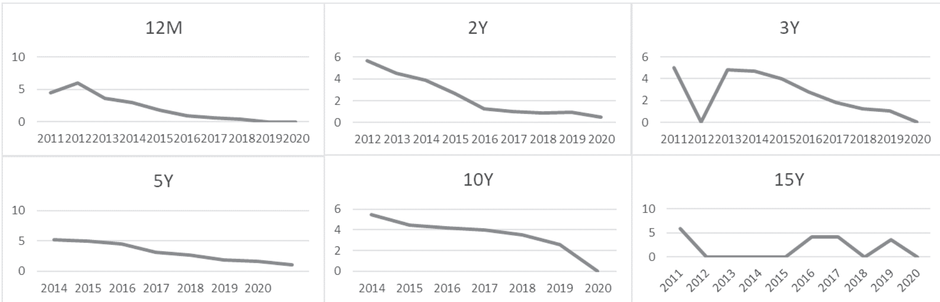
Economy representatives point to the problem of low average weighted interest rates on government securities in the Republic of Serbia. Considering that the investment policies of all funds aim at providing optimal returns with moderate risk exposure, one of the most adequate types of investments is the securities issued by the Republic of Serbia. As most of the funds' assets are invested in these instruments (80.8% of the total assets of the funds in the first quarter of 2020), the performance of the funds themselves depends largely on their return. In the following graphs we can see the movement of interest rates on government bonds of different maturities and currencies in previous years.

CHART 3: AVERAGE WEIGHTED INTEREST RATE ON RSD GOVERNMENT SECURITIES (IN%), 2003-2020



Source: National Bank of Serbia

CHART 4: AVERAGE WEIGHTED INTEREST RATE ON GOVERNMENT SECURITIES IN EUROS (IN%), 2003-2020



Source: National Bank of Serbia

As can be seen, interest rates have fallen over the last two years, 2019 and then 2020, for securities of those maturities that have had issues or re-issues in the aforementioned years. However, in addition to the downward trend in interest rates, it should be noted that auctions were very rare, if at all, for individual maturities, which only indicates a weak activity of the domestic capital market.

With this drop in interest rates on government securities, the returns of Serbian voluntary pension funds also fell. Although small market participants, these funds are relatively sound, bearing in mind that the existing structure of the national financial market can be considered as a major obstacle to successful diversification.

The decrease in aggregate exposure to the sovereign bond asset class is a consequence of the redirection of the dinar cash position into term deposits and investment units of open-ended investment funds, in order to ensure more efficient management of the cash position, with the aim of increasing overall return performance. This trend is a consequence of the expected maintenance of the position of the dinar yield curve at the current low level and, accordingly, increased uncertainty regarding the reinvestment of funds placed in government bonds.

In the economic environment present in our country today, it will be necessary for portfolio managers of voluntary pension funds to reconsider their investment policies. Declining interest rates on local currency bonds leaves fund managers in the dilemma of continuing to place now RSD 45 billion in savings of around 200,000 citizens.

What further affects the successful diversification of fund portfolios are the legal constraints on the type of financial instruments in which funds are allowed to invest. Detailed restrictions on the investment of assets of voluntary pension funds are presented within the relevant by-law, and can be seen in Table 2 above.

Recordly low interest rates on government securities, developments at the international level regarding a prolonged period of geopolitical uncertainty and volatility in emerging markets, such as local and unsatisfactory living standards at the national level, are factors that can, if the sector does not adjust to them, affect the deteriorating business performance of voluntary pension funds.

In the global economic environment with low interest rates, as it is today, which forced banks, one of the key participants in the world financial market, to lower their interest rates[22], what should directly affect their profitability, it is realistic to expect that the investment focus of voluntary pension funds, especially in Serbia, where this branch of industry is at an early stage of development, will be on those asset classes that will deliver better returns, such as money market funds and term deposits, with active management of government bond portfolios to mitigate one-time price fluctuations of individual series. However, the question is how much the funds will be able to shift their investment focus from government securities, given the legal constraints on investing funds in other types of financial instruments.

6. COMPARATIVE ANALYSIS OF VOLUNTARY PENSION FUND SYSTEMS

The current role of private pension schemes varies greatly across EU member states, not only in terms of their contribution to the total income of pensioners but also in terms of the level of coverage of active members, the maturity of the schemes and the size of accumulated funds. Adequacy of pensions refers to their ability to prevent old age poverty and to ensure a decent standard of living for pensioners as well as to enable them to participate in the economic well-being of their country, in public, social and cultural life.[23]

In terms of the allocation of voluntary pension funds assets, there are some similarities between EU countries and even Serbia compared to them. The main similarity is that the two main asset classes that these funds have in their portfolios are bonds and equity. This stems in part from the regulatory framework in which the funds operate, but also from the practice of trying to maintain the liquidity and security of paid contributions of users of these financial services. The following table shows the share of bonds, shares and cash (cash and deposits) in the total assets of funds in individual countries for which we have presented in the previous part of the paper the legal restrictions on investment. As we can see, it is generally true that the share of bonds is higher than the share of equity, but of course there are different ratios of these asset classes in fund assets, as is the case in the shown structure of fund assets in Belgium where equity participation is higher than bond share.

22 Kozarić, K. and Dželihodžić, Ž. E. (2020), Analysis of interest rates and banking sector profitability, Ekonomske ideje i praksa, No. 36, p. 21-30

23 Papic, M. (2019), Functioning of voluntary pension funds in Serbia: characteristics, problems and perspectives. Unpublished master's thesis, Faculty of Economics, University of Belgrade, Belgrade, Serbia

TABLE 3: ALLOCATION OF ASSETS IN FUNDED AND PRIVATE PENSION PLANS IN SELECTED ASSET CLASSES AND INVESTMENT VEHICLES, 2018 OR LATEST YEAR AVAILABLE

COUNTRY	EQUITIES	BILLS AND BONDS	CASH AND DEPOSITS
Serbia	11.1	81.5	6.8
Belgium	49.1	41.1	5.6
Estonia	34.2	62.5	3.1
Latvia	27.7	61.3	6.0
Slovak Republic	2.5	58.6	11.2
Croatia	21.0	70.7	6.4
*Data for Serbia are given as of 31.12.2019.			

Source: OECD (2019), Pension Markets in Focus

There are several reasons for this structure of assets in which the share of bonds is higher than equity. One of the main reasons that is acceptable in Serbia is the lack of domestic investment opportunities, with many countries legally restricting investment in less traditional asset classes such as real estate (at least directly).

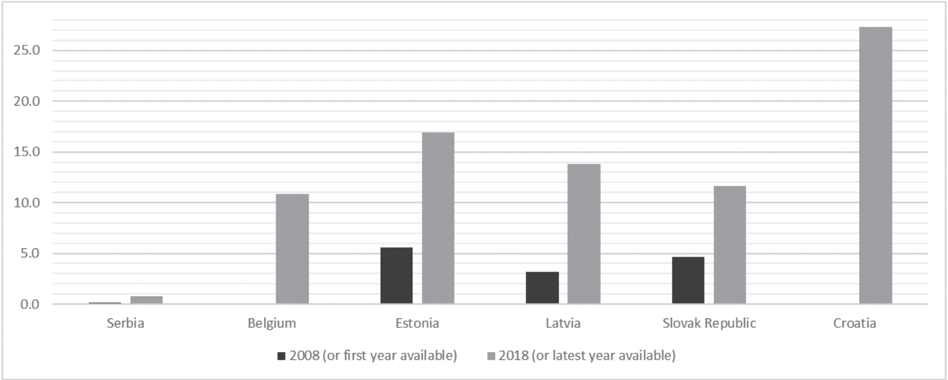
Another similarity but also the difference between the countries are the fees that pension providers charge for the costs of executing pension plans, which reduce the total amount of assets in those plans, also reducing the payment of pensions that members can receive.

Most countries have legally limited the amount of the fee that pension providers can charge to members, and in most cases specifically the asset management fee, which was one of the most widespread fees charged. In Serbia, by amending the bylaw regulating the calculation of the asset management fee, in 2018 the legal limit of the rate at which the asset management fee is calculated was reduced from 2% to a maximum of 1.25% per year.[24]

Also, pension assets have been of varying importance across countries. The best way to show that is to present total assets in funded and private pension arrangements as a percentage of GDP.

24 Decision on the Method of Calculation of Fees Charged by a Voluntary Pension Fund Management Company (RS Official Gazette, No 60/2011 and 77/2017)

TABLE 4: TOTAL ASSETS IN FUNDED AND PRIVATE PENSION ARRANGEMENTS, IN 2008 (OR FIRST YEAR AVAILABLE) AND 2018 (OR LATEST YEAR AVAILABLE) AS A PERCENTAGE OF GDP



Source: OECD (2019), Pension Markets in Focus

There are many other similarities and differences of voluntary pension systems between countries and we have presented only some of them in this paper.

7. CONCLUSION

All the above trends point to the fact that the current situation on the local market is not favorable for the development of voluntary pension funds and that joint efforts of market participants and regulators will be needed in order to make significant progress for this type of savings for old age. However, the voluntary pension fund sector is today well above its level of development a decade ago. In just one decade, the share of this sector's total assets in gross domestic product has increased from 0.2% to 0.8%.[25]

In the light of fiscal pressures stemming from demographic trends, many countries have taken steps to encourage the creation of occupational and private pension schemes. As a result of these efforts, the role of these schemes has recently increased. Nevertheless, the role of private pension plans is currently quite limited, as most of the pension income is provided by public pension schemes.[26] In other words, at the moment, there are only a handful of countries with, conditionally, a large number of retired people or people who will soon retire and rely heavily on funded pension systems.

In addition, what should be taken into account is the current rising unemployment faced not only by countries in transition but also by developed countries.[27] As employment growth potentially raises the level of economic development and reduces the risk of

25 OECD (2019), *Pension Markets in Focus*. p. 73. (comparative data for end of 2008 and 2018)

26 European Commission (2009), *Pension schemes and pension projections in the EU-27 Member States - 2008-2060*. Directorate-General for Economic and Financial Affairs Publications, Brussels, Belgium, p. 37.

27 Beloica, J. (2019), Analiza zaposlenosti u Republici Srbiji, Ekonomske ideje i praksa, No. 33, p. 75-90

poverty, a significant factor that may affect the voluntary pension funds advancement and increasingly profitable business are also the movements on the labor market, since working population can set aside a certain amount and invest in these financial institutions. All this indicates the need to give importance to education, at least that part of the population that is currently employed and has a certain income at the regular level, about the characteristics and benefits of these financial products.

The growing importance of privately funded retirement plans in the world is also evidenced by the fact that, for example, in the United States, as one of the countries with longest-standing traditions of supplementing public pensions with voluntary private pensions, approximately half of the working age population (15-64 years) is covered by voluntary private pension plans: 44% participate in occupational pension systems and 19% participate in personal pension plans.[28]

Private pensions play an important role in securing income at a later age, as evidenced by work on one of the EU-funded projects, the “Pan-European Personal Pension Product Initiative (PEPP)”, which is part of the Capital Markets Union, aimed at mobilizing capital in the Union and its targeting for all companies, including SMEs, infrastructure and long-term sustainable projects that need this capital to expand and create jobs. The development of a future PEPP will contribute to greater choice for saving in retirement and building the Union market for private pensions. However, due to the limited and recent development of private pensions, it is not possible to make clear quantitative estimates based on their development to date at European aggregate level, other than theoretical assumptions.[29]

Given that the voluntary pension funds sector is a relative novelty in the financial market of the Republic of Serbia, with participation of members of these financial institutions in the workforce of 9.6% at the end of the first quarter of 2020[30], it remains to be seen the direction of developing this method of raising and investing funds, ie resolving the issue of pensions, whereby there is evident too much pressure on the so-called State pensions, as well as an increasingly difficult way to deal with the financing of pensions from the state budget.[31]

28 OECD (2019), *Pensions at a Glance: How does THE UNITED STATES compare?*. p. 2.

29 Lannoo, K., Barslund, M., Chmelar, A. and von Werder, M. (2014, August), *Pension Schemes*. European Parliament, Directorate General For Internal Policies, p. 51

30 NBS (2020), Voluntary pension funds sector in Serbia, First Quarter Report 2020

31 Malešević, Z. *Openness of the Financial Market of the Republic of Serbia for Integration with the Financial Markets of EU Countries*, School of Business, No. 4/2011, p. 88

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