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HOUSEHOLD INVESTMENT POSSIBILITIES IN SERBIA

JEL CLASSIFICATION: D14, D53, G11, G23

ABSTRACT:

The aim of this paper is the presentation of all available investment possibilities of the household sector in Serbia. The level of these investments is defined by the level of disposable income, financial literacy, investment alternatives and the development of the financial market and its instruments. Most of the investments in the household sector in Serbia are directed in savings, mainly in foreign currency savings. Other possibilities including investment in different types of bonds, but also an investment in stock and investment funds and other types of savings like voluntary pension funds and life insurance. The main limitation of the household investment possibilities in Serbia is the capital market which is shallow and future activities should be focused on its development. Capital markets can play a strong role in economic growth and provide financing for the state and the private sector by offering access to domestic and international financial resources. The primary function of capital markets is therefore to create the connection between various types of investors, such as households, voluntary pension funds, insurance companies, commercial banks, and foreign investors and different issuers, mainly large and medium-sized real sector companies, financial sector and governments.

**KEY WORDS:****HOUSEHOLD INVESTMENT, BONDS, SAVINGS, INSURANCE**

1 National Bank of Serbia. The views expressed in this paper are those of the author, and do not necessarily represent the official view of the National Bank of Serbia

1. INTRODUCTION

The household sector should have one of the leading roles when it comes to the development of the capital market in Serbia. The household can place its surplus of financial resources in the financial market through banks, i.e. traditional savings, or can directly invest in securities of value, or decide to invest funds in investment funds². In domestic condition the capital market is shallow, and it has the potential for further development. To achieve this goal every participant of the capital markets should contribute to improving household financial literacy, increasing investment alternatives and the development of the financial market and its instruments. In the current condition, a major part of investments of the household sector in Serbia is directed in savings, mainly in foreign currency savings. Other possibilities including investment in different types of bonds, but also investment in stock and investment funds and other types of savings like voluntary pension funds and life insurance.

At the moment the investment fund industry is very small, and the volume of savings invested in these funds accounts for less than one percent of the GDP, even though the first investment funds were set up more than ten years ago. Savings collected by voluntary pension funds have been growing continuously, however, the aggregate size of the industry has been just slightly higher than that of the investment fund. The insurance sector is more developed, but significantly lags the EU average.

The objective of this paper is to present all available investment opportunities of the household sector in Serbia, the level of household investment in each type of investment and to present the perspective of investment decision of the household. There are not many works of literature written on this topic and therefore it is encouraging and inspiring to conduct research for contributing to science.

This paper is organized in the following order. First, part is devoted to the presentation of literature, after which coming analyses of all different types of savings (traditional savings with banks, but also saving for retirements with voluntary pension funds and savings in life insurance) and the third part is focused to invest in various types of bonds and investment funds. The fourth part of the paper will represent the future activities which could increase household investment potential and further development of the capital market in Serbia. In conclusion, we are going to summarize the main points of this paper and to present open questions and recommendation for further research.

2. LITERATURE REVIEW

Literature regarding household investment opportunities contain an impressive and still growing number of works because this topic provides great potentials for research. In this regard, the research on this topic can be analyzed from the aspect of investment behavior, investment decisions, remittance inflows, financial literacy of the population sector, as well as the presentation of case studies from different countries. Gaudecker

2 Malešević (2011), p. 84

(2013) dealt with the analysis of the financial literacy of the household and showed that the greatest losses on the investment in the household sector arise from insufficient diversification of investments, as well as the household often does not possess enough good skills in basic financial-numerical operations. Lusardi (2008) points to the importance of financial literacy in the US and shows that there are acute problems in certain segments of society (such as those with low education, women, African Americans, and Hispanics). Brown and Graf (2012) conducted a survey on financial literacy in Switzerland on a sample of 1,500 individuals aged 20-74 years and found it to be high.

Concerning the main population prevalence affecting the financial decisions obtained from the research at the Dutch household panel, according to Donkers and van Soest (1999), they include a measure of the rate of time preference, a measure of risk aversion, and a measure of interest in financial matters. Barber and Odean (2011) point out that the following characteristics influence the behavior of individual investors: (1) not meeting regular standards (for example, a low-cost index fund), (2) selling a winning investment while holding investment with loss, (3) engage in naive reinforcement learning by repeating past behaviors that coincided with satisfaction, while avoiding the past behavior that caused pain, (4) are under the great influence of limited attention and the previous effect of return in their purchasing decisions and (5) tend to hold undisciplined portfolios of actions. Mani (2011), as well as Davis (1976), dealt with the identification of key factors in making investment decisions of the household sector and concluded that they were information flows and control over household income.

In the case of Guatemala, Richard H. Jr (2005) showed that the household that receives the remittance inflows, the bulk of these funds invests in education, while a small part of the funds goes to investments such as buying/adapting houses and apartments. Using data from the 1983 and 1989 Federal Reserve Board Surveys of Consumer Finances, Gentry and Hubbard (2000) have shown that decisions on high-income household devote relatively little attention to decision-makers on savings and their role in accumulating wealth. Breuer, Riesener, and Salzmann (2014) dealt with the analysis of the reasons why the household sector invests in shares in lesser extent and their conclusion is that it is associated with psychological factors contained in the national culture. Those authors point out the significant relationship that exists between risk aversion and financial risk in the household sector. Korniotis and Kumar (2009) dealt with the analysis of whether age influenced investors' effect on investment decisions and concluded that older and more experienced investors show a higher level of investment knowledge, following the so-called "rule of thumb". To determine what defines the level of household savings in Indonesia, Kelley and Williamson (1968) investigated the link between the level of savings, income sources and the age of household and indicated that the income structure changed systematically and that depending on age and proportion between savings and investment.

3. HOUSEHOLD SAVINGS POSSIBILITIES IN SERBIA

The household sector in Serbia can use different types of savings, like traditional savings with banks, but also saving for retirements with voluntary pension funds (hereinafter referred to as VPF) and savings in life insurance.

When it comes to savings of the households in Serbia major part of it is in savings with banks. According to the data from *Table 1* at the end of 2018, approximately 95% of total household savings with banks is foreign currency savings, while only 5% is related to dinar and FX-indexed savings.

► **TABLE 1. HOUSEHOLD SAVINGS WITH BANKS (IN MILLION DINARS, END OF PERIOD)**

YEAR	DINAR AND FX-INDEXED SAVINGS			FOREIGN CURRENCY SAVINGS			TOTAL SAVINGS (3 + 6)
	SHORT-TERM	LONG-TERM	TOTAL (1 + 2)	SHORT-TERM	LONG-TERM	TOTAL (4 + 5)	
	1	2	3	4	5	6	
1999	418	28	446	515	72	587	1.033
2000	682	32	714	2.865	143	3.008	3.722
2001	1.478	81	1.559	20.626	368	20.994	22.553
2002	3.074	454	3.528	44.532	1.409	45.941	49.469
2003	3.753	480	4.233	66.161	3.577	69.738	73.971
2004	2.783	369	3.152	100.830	9.883	110.713	113.865
2005	2.823	444	3.267	163.160	26.976	190.136	193.403
2006	6.909	642	7.551	214.207	46.454	260.661	268.212
2007	9.688	1.078	10.766	326.557	55.044	381.601	392.367
2008	9.729	846	10.575	363.529	51.041	414.570	425.145
2009	11.612	787	12.400	500.586	65.591	566.177	578.577
2010	9.658	3.702	13.360	614.314	117.755	732.066	745.428
2011	16.351	3.004	19.355	570.836	204.802	775.637	794.992
2012	16.257	1.374	17.630	731.381	178.469	909.849	927.479
2013	30.867	2.804	33.672	740.639	193.201	933.840	967.512
2014	34.424	3.634	38.058	777.830	220.471	998.302	1.036.359
2015	34.521	10.843	45.364	700.668	313.603	1.014.271	1.059.635
2016	43.115	7.251	50.366	861.426	209.529	1.070.955	1.121.321
2017	42.894	6.596	49.490	888.849	185.574	1.074.423	1.123.913
2018	52.514	7.950	60.464	937.984	201.767	1.139.751	1.200.215

Note: The new Chart of Accounts for banks and other financial organizations adjusted to International Accounting Standards came into force as of 31 December 2014. Short-term dinars savings are shown without the stocks expressed in transaction accounts of bank clients in dinars, while short-term foreign currency savings within demand deposits also include the stocks expressed in transaction accounts of bank clients in a foreign currency.

Source: National Bank of Serbia

This is an unfavorable currency structure and its opposite with Memorandum of the Dinarisation Strategy³ whose one of the aims is to increase holdings of dinar savings in total savings of the household sector. One of the measures to increase dinar saving is the preferential tax treatment of dinar savings in comparison with foreign currency savings. In September 2012, the Law Amending the Law on Personal Income Tax⁴, Article 65,

3 National Bank of Serbia, Memorandum on the Dinarisation Strategy December 2018, http://www.nbs.rs/internet/english/30/Memorandum_Dinarisation_Strategy_2018.pdf

4 Law on Personal Income Tax (RS Official Gazette, Nos 24/01, 80/02-others law, 80/02, 135/04, 62/06, 65/06-corrected, 31/09, 44/09, 18/10, 50/11, 91/11-CC, 93/12, 114/12-CC, 47/13, 48/13-corrected, 108/13, 57/14, 69/14-other law, 112/15, 5/2016-adjusted RSD amount, 7/2017-adjusted RSD amount, 113/2017 and 7/2018-adjusted RSD amount)

raised the income tax rate on FX savings from 10% to 15%, while keeping 0% rate on dinar savings, to support dinar savings and boost dinar lending. Household preferences and profitability of dinar savings in the coming period will depend primarily on the overall macroeconomic stability, the level of inflation, the level of interest rates on the dinar and foreign currency savings, the tax treatment of savings and the degree of appreciation or depreciation of the dinar against euro⁵.

In recent decades, households around the world have started playing a more active role in their retirement savings decisions. Although plans differ, depending on the country and the legal system, the shift in investment responsibility to employees is common across many countries⁶. VPF according to Article 3 of the Law on Voluntary Pension Funds and Pension Schemes⁷ represents a collective investment vehicle established to collect and invest pension contributions into different types of assets with a view to generating returns and reducing investment risk. National Bank of Serbia (hereinafter referred to as NBS) oversees the supervision of VPF in a way to create a credible financial system⁸.

According to the Fourth Quarter Report for 2018 for VPFs⁹ sector in Serbia at the end Q4 2018 the market of VPFs included four companies managing seven VPFs, one custody bank, and five agent banks. Net assets of all VPFs equaled RSD 40.2 billion at end-Q4 2018, where the majority of assets were invested in government debt instruments (83.1%). At the end-Q4 2018 VPF users accounted for 9% of the total number of employees and 192,295 users were in the accumulation phase (*Table 2*).

▶ **TABLE 2. NUMBER OF CONTRACTS AND USERS (IN THOUSANDS)**

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Number of contracts	158.5	201.6	215.7	220.4	234.4	240.4	244.5	252.1	258.1	250.5	253.9	261.7
Number of users	-	156.0	165.2	166.8	174.9	179.8	183.5	188.0	190.5	183.6	185.4	192.3
Percentage of active users (in %)	-	41.6%	36.0%	43.9%	35.1%	30.5%	30.3%	31.3%	25.3%	28.5%	33.6%	33.4%

Source: National Bank of Serbia

Life Insurance can be treated as one type of household savings, mostly in the long term. Insurance supervision is mandated to the NBS. In its role of supervising the activities of insurance undertakings, the NBS strives to protect and strengthen the financial stability of the insurance market forming part of a modern, efficient and stable financial sector, with the aim of protecting the rights and interests of the insured and other insurance beneficiaries¹⁰.

5 Martin (2018), p. 217

6 Shaton (2015), p. 2

7 Law on Voluntary Pension Funds and Pension Schemes (RS Official Gazette, Nos 85/2005 and 31/2011)

8 National Bank of Serbia, Supervision of Voluntary Pension Funds Management Companies, <http://www.nbs.rs/internet/english/62/index.html>

9 National Bank of Serbia, Voluntary Pension Funds Sector in Serbia – Fourth Quarter Report 2018, http://www.nbs.rs/internet/english/62/62_2/vpf_IV_18.pdf

10 National Bank of Serbia, Insurance Supervision, <https://www.nbs.rs/internet/english/60/index.html>

Based on data from report Insurance Sector in Serbia for Third Quarter Report for 2018¹¹, the insurance market in Serbia numbered 21 insurance undertakings, the same as in the corresponding period a year earlier. Total premium generated from the insurance business in Q3 2018 came at RSD 74.6 billion (EUR 630 million), which is an increase of 5.2% from a year earlier. Life insurance increased its share from 22.5% in Q3 2017 to 22.7% in the same period of the current year, due to a 6.4% nominal growth in life insurance premium relative to Q3 2017. Top five largest insurance undertakings at the end-Q3 2018 are holding 82.4% of total life insurance premiums (*Table 3*).

► **TABLE 3. RANKING LIST OF FIVE LARGEST INSURANCE UNDERTAKINGS BY LIFE PREMIUMS (RSD MILLION, %)**

INSURANCE COMPANY	30.9.2017			30.9.2018			RANKING CHANGE
	AMOUNT	SHARE	RANK	AMOUNT	SHARE	RANK	
Generali	4384	27,5	1	5574	32,9	1	-
Wiener	3215	20,2	2	2992	17,6	2	-
Grawe	2531	15,9	3	2434	14,3	3	-
Dunav	1118	7,0	6	1630	9,6	4	increase
Uniq a l	1262	7,9	5	1345	7,9	5	-

Source: National Bank of Serbia

Insurance funds consist of technical provisions, guarantee reserve and other insurance funds. An insurance undertaking shall be required to determine or calculate technical provisions enough to cover all liabilities stemming from insurance contracts¹². At the end-Q3 2018 life insurance technical provisions were for their major par invested in government securities (94.7%), followed by bank deposits and cash (3.9%).

4. HOUSEHOLD FUNDING POSSIBILITIES IN SERBIA

Access to financial services enables households to invest in activities that are likely to contribute to higher future income and, therefore, to growth¹³. Households in Serbia can invest its funds in different types of investment, like bonds and by purchasing an investment unit from investment funds.

Bonds represent securities of debt instruments which reflect debt-trust relationships. Bonds guarantee the owner the payment of interest and principal in a predetermined period. A household can invest in different types of bonds. This investment carries a cost like fee for broker, banks, stock exchange and security commission, as well as one-time costs of opening a proprietary account in security commission and a dedicated cash account in a bank if the investor does not have that account opened.

A household can invest in government securities, which can be considered as the safest form of investment. Government securities are sold at auctions organized by the Public

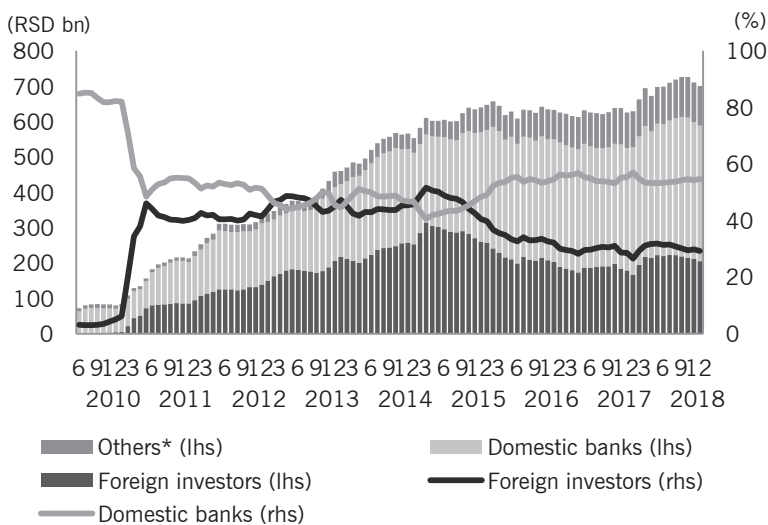
11 National Bank of Serbia, Insurance Sector in Serbia – Third Quarter Report 2018, https://www.nbs.rs/internet/english/60/60_6/insurance_III_2018.pdf

12 Article 115 and 116, Insurance Law (RS Official Gazette, Nos 139/2014)

13 Ellis et al., (2010), p. 5

Debt Management, in front of the Ministry of Finance, according to the pre-determined calendar (mostly published on quarterly level). The PDA does not provide information about how much is a participation of household in government securities (in euro and Serbian Dinar), but only provides information whether households bids in certain auction was accepted. In Annual Financial Stability Report¹⁴ we can find the total figure representing the participation of custody banks, insurance undertakings, voluntary pension funds, households (individuals) and other legal entities (*Graph 1*). Information about household participation in government securities can be found in NBS statistics and according to the available data their share in dinar and euro securities at the end of April 2019 was RSD 8.2 billion.

▶ **GRAPH 1. STRUCTURE OF PORTFOLIO OF RSD GOVERNMENT BONDS**



Note: * Custody banks, insurance undertakings, voluntary pension funds, households (individuals) and other legal entities.

Source: Central Securities Depository and Clearing House

The second possibility for households is purchase of municipal bonds. According to Article 37, Law on Public Debt¹⁵ local authorities can get funds by borrowing or by issuing long-term securities of value (municipal bonds), which can be bought by domestic and foreign legal entities and private individuals. Municipal bonds are debt securities issued by local authorities, i.e. cities, municipalities and other local communities. The only municipal bonds that can be traded on the Belgrade Stock Exchange are the bonds of the city Šabac and municipality Stara Pazova, which are trading at the multilateral trading platform (MTP). For both bonds, there are not trading activity on MTP. Another city, like Novi Sad, Užice and Pančevo, also had issued municipal bonds, but these bonds are not traded on the Belgrade Stock Exchange (*Table 4*). There are not publicly available data about participation of household in municipal bonds.

14 National Bank of Serbia, Annual Financial Stability Report <http://www.nbs.rs/internet/english/90/fs.html>

15 Public Debt Law (RS Official Gazette, Nos 61 from 18 July 2005, 107 from 23 December 2009, 78 from 19 October 2011, 68 from 4 August 2015, 95 from 8 December 2018)

▶ **TABLE 4. REVIEW OF MATURITY SECURITIES ON MARCH 31, 2019 - LOCAL GOVERNMENT DEBT**

ISSUER	ISIN	TYPE	CURRENCY	AUCTION DATE	MATURITY DATE	ACCEPTED RATE	NOMINAL VALUE OF SOLD T-BILLS
Sabac	RSGSMOD37844	3Y	RSD	24.12.2014	24.12.2021	Fixed	244.463.316
Pancevo	RSPAMOD55449	7Y	EUR	27.4.2012	27.4.2019	Variable: Euribor 3M + 7.45%	39.857
Stara Pazova	RSSTPZD25429	10Y	EUR	10.2.2014	10.2.2024	Fixed	675.093
Stara Pazova	RSSTPZD62313	5Y	EUR	25.5.2015	25.5.2020	Fixed	311.056
Novi Sad	RSSGNSD69309	12Y	EUR	13.10.2011	13.10.2023	Fixed	7.500.000
Novi Sad	RSSGNSD60746	11Y	EUR	10.4.2012	13.10.2023	Fixed	7.000.000
AP Vojvodina	RSAPVJD31607	10Y	RSD	11.6.2012	11.6.2022	Variable: Consumer price index + 2%	2.170.070.815

Source: Quarterly Report- March 2019, Public Debt Administration, Ministry of Finance

Corporations, to raise capital for financial growth and development, can also issue a special type of bonds, in addition to shares, so called corporate bonds that, on their basis, represent liquid contracts with the obligation to pay principal and interest, maturity date, and buyers of these securities. At the moment corporate bond market in Serbia is in the initial phase of development, because corporations are largely relying on commercial bank financing instead of the corporate bond market since it is cheaper. According to data from the Central Security Depository and Clearing House (CSD) now there are nine corporations which have issued corporate bonds in Serbia (*Table 5*).

▶ **TABLE 5. CORPORATE BONDS IN SERBIA**

NAME OF COMPANY	CURRENCY	NOMINAL VALUE PER SECURITY	TOTAL NOMINAL VALUE	DATE OF MATURITY
AB SOLUTION D.O.O.	RSD	10,000.00	10,000,000.00	15.12.2019
ANADOR KONSALTING AD	RSD	1,100.00	7,260,000.00	4.11.2019
ANATEO D.O.O.	RSD	1,100.00	2,750,000.00	30.9.2019
DOO INSTEL INŽENJERING	RSD	10,000.00	3,150,000.00	15.3.2019
	RSD	10,000.00	5,000,000.00	9.5.2019
	RSD	10,000.00	5,000,000.00	8.6.2019
	RSD	10,000.00	13,000,000.00	6.12.2019
GRADITELJ-BEOGRAD	RSD	10,000.00	46,000,000.00	29.7.2020
PAKO CONSTRUCTION DOO	RSD	1,100.00	7,700,000.00	12.4.2019
	RSD	1,100.00	6,820,000.00	10.6.2019
ŠINVOZ DOO	RSD	100,000.00	20,000,000.00	19.2.2019
SOBIM ENERGY D.O.O.	RSD	10,000.00	3,000,000.00	30.3.2019
WALL-PAPER 8 D.O.O.	RSD	1,100.00	3,300,000.00	23.9.2019
	RSD	1,100.00	6,600,000.00	21.10.2019

Source: Central Securities Depository and Clearing House

There are two banks in Serbia that had issued corporate bonds. On May 2012 Societe Generale Bank successfully issued its first three-year dinar issue and in October 2012 Erste Bank issued two years corporate bond. On February 18, 2019, Erste Bank issued

the second issue of dinar long-term bonds, maturity of two years and one day, and a variable interest rate that equals three-month BELIBOR plus 1%.

Supranational bonds represent supranational debt issued by international organizations, often multinational or quasi-government organizations, with a purpose of promoting economic development. In December 2016 EBRD launched first supranational bond in Serbian dinars, that will also increase the Bank's ability to lend to the Serbian economy in the local currency and thus contribute to dinarisation of Serbian finance. This first bond issue from the EBRD in the Serbian currency is a three-year floating-rate issue that pays interest at the three-month Belgrade Interbank Offered Rate (Belibor) plus 0.4 per cent. The bonds are governed by Serbian legislation and are traded on the Belgrade Stock Exchange on Regulated market. The issue was underwritten by Raiffeisen Banka Beograd. Citigroup acted as a marketing agent¹⁶. There are not publicly available data whether households are having ownership in these bonds and to what extent.

First issue of savings bonds in Serbia occurred in December 2017. Savings bonds are long-term securities with a maturity equal to or more than two years with a coupon, which can be purchased only by domestic adult private individual persons. These bonds were denominated in euro and dinar. The nominal value of savings bond in dinars was 2.000 dinars and in euro 100 euros. Coupon rates on dinar and euro savings bonds, as well as corresponding rates for term deposit from households are presented in *Table 6*. Based on presenting data ones can note that the interest rates on savings bonds on all maturities in dinar and euro were higher than the rates for term deposit from household in December 2017.

► **TABLE 6. INTEREST RATES ON SAVINGS BONDS AND ON TERM DEPOSIT**

SAVINGS BONDS			INTEREST RATES ON TERM DEPOSITS FROM HOUSEHOLD (NEW BUSINESS, DATA IN DECEMBER 2017)		
MATURITY	CURRENCY		MATURITY	CURRENCY	
	RSD	EUR		RSD	EUR AND EUR-INDEXED
Two years	4,00	1,00	Up to 1 year	3,00	0,53
Three years	4,50	1,75	Over 1 and up to 2 years	3,43	1,25
Five years	5,25	2,50	Over 2 years	3,93	1,28
Ten years	6,25	4,00	Total	3,03	0,88

Source: Public Debt Agency, Ministry of Finance and National Bank of Serbia

Investment funds, according to Article 2, Law on Investment Funds¹⁷, are institutions of collective investment within which they are collected and invested cash in different types of assets with the aim of generating income and reducing risk investments.

With its activity, the investment fund reaches to those capital owners with minimal amounts of investment putting it into operation, mobilizes capital and thereby creating a huge amount of capital. Acting on these principles, the investment fund realizes elements of social policy allowing a large number of small investors to make profits¹⁸.

16 European Bank for Reconstruction and Development (EBRD), EBRD launches first supranational bond in Serbian dinars, <https://www.ebrd.com/news/2016/ebrd-launches-first-supranational-bond-in-serbian-dinars.html>

17 Law on Investment Funds (RS Official Gazette, Nos. 46/2006, 51/2009 and 31/2011)

18 Božić and Todorović (2009), p. 57

In Security Exchange Commission Annual Activity Report for 2017¹⁹ it is stated that the total value of net assets of all open-end investment funds as of December 31, 2017, amounted to RSD 25.2 billion or EUR 211.3 million, which is in comparison with 31.12.2016 increase by more than 24%. The total value of the assets of the closed-end fund amounted to RSD 113.5 million, or EUR 954 thousand, or 0.6% less in comparison with 31.12.2016, while the total number of shares of the fund remained unchanged (39.477).

5. THE PERSPECTIVE OF THE HOUSEHOLD INVESTMENT

The welfare benefits of financial markets depend in large part on how effectively households use these markets. The study of household finance is challenging because household behavior is difficult to measure accurately, and because households face constraints that are not captured by textbook models, including fixed costs, uninsured income risk, borrowing constraints, and contracts that are non-neutral with respect to inflation²⁰.

In previous two sections of this paper, we presented different types of household investment possibilities in Serbia. To comprehend the perspective of further investment opportunities it is important to assess current level of household indebtedness. Data in *Table 7* indicate that the household sector in Serbia is highly indebted when compare different indicator of indebtedness with average gross and net earnings in Serbia. According to data from the Statistical Office of the Republic of Serbia average gross earnings in March 2019 were RSD 74.755 (approximately EUR 633), while average net earnings in March 2019 was RSD 54.271 (approximately EUR 460). The very low level of average earnings does not leave much room for creating excess funds that can be invested in different forms of investment.

► **TABLE 7. HOUSEHOLD SECTOR INDEBTEDNESS INDICATORS**

INDICATOR	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4
	2010	2011	2012	2013	2014	2015	2016	2017	2018
Average loan per resident									
RSD thousand	76,0	81,0	88,2	91,4	100,4	105,9	118,5	128,4	144,5
EUR	720,6	773,9	775,7	797,3	830,3	870,4	959,9	1.078,0	1.222,8
Average loan amount									
RSD thousand	427,6	439,6	460,4	489,9	511,1	472,2	488,7	486,7	516,3
EUR	4.052,8	4.201,4	4.049,0	4.273,1	4.225,3	3.882,5	3.957,6	4.085,1	4.368,4
Average loan per user									
RSD thousand	509,0	530,9	570,1	612,0	644,7	614,6	641,0	650,8	701,7
EUR	4.824,9	5.073,9	5.012,9	5.338,8	5.329,8	5.053,1	5.191,4	5.462,3	5.936,6

Source: National Bank of Serbia and Association of Serbian banks

¹⁹ Security Exchange Commission Annual Activity Report for 2017, <http://www.sec.gov.rs>

²⁰ Campbell (2006), p. 1



To increase overall investment activity of the households and to refocus these funds from savings to alternative investment few activities should be implemented: 1) Improving living standard of the households by increasing earnings and other work conditions (like payment of employer in VPF and life insurance). In that way financial potential of all individuals will increase and can be in different types of investments; 2) Further development of financial and capital markets and its instruments; 3) Tax treatment of earnings on a certain financial instrument (e.g. interest on savings, interest on income); 4) Upgrading financial literacy of the household by organizing conference, presentations and brochure. It is also important to examine how financial literacy is related to household investment and borrowing²¹. This activity asks inclusion of all participants on financial and capital markets and 5) Achieving and maintaining price and financial stability, as a precondition for overall economic development in the long run.

6. CONCLUSION

The aim of this paper is a presentation of all available investment opportunities of the household in Serbia. The level of those investments is defined by the level of disposable income, financial literacy, investment alternatives and the development of the financial market and its instruments. Household sector should have one of the leading roles when it comes to the development of the capital market in Serbia. In a domestic condition capital market is shallow and it has potential for further development.

Now major part of household savings is in savings with banks and approximately 95% of total household savings is foreign currency savings, while only 5% is related to dinar and FX-indexed savings. This is an unfavorable currency structure and its opposite with Memorandum of the Dinarisation Strategy whose one of the aims is to increase holdings of dinar savings in total savings of the household sector. In dinar and FX-indexed savings more than 95% are in the short-term, mostly up to one year and demand deposit. Also, more than EUR 10 billion is in savings which indicate that there is significant potential to invest these funds in alternative investment opportunities. Considering that no tax is paid on interest income based on dinar savings, dinar savings have more favorable tax treatment in comparison with foreign currency savings.

Besides savings with bank household can put their money in VPF, which represent savings for old day, e.g. for period after retirement. Data indicate that VPF user's account for about 9% of the total number of employees. Another alternative for household savings is invested in life insurance. Total premium generated from the insurance business in Q3 2018 came at RSD 74.6 billion (EUR 630 million) from which share of life insurance is 22.7%. Still insurance in Serbia is under development in comparison with the EU and that the average life insurance premium per capita in Serbia is very low (the end-Q3 2018 was just EUR 20).

Household can invest its funds in different types on bonds which are issued by Government of Republic of Serbia (denominated in euro and dinar, with different maturity), as well as corporate bonds issued by corporation and commercial banks, supranational

21 Brown and Graf (2012), p. 16

bonds issued by international financial institution like EBRD, municipal bonds where local authorities can get funds by borrowing or by issuing long-term securities of value and savings bonds whose aim is to attract investment of all domestic adult private individual persons. Another possibility is purchase of investment unit of investment funds, which are collected and invested cash in different types of assets with the aim of generating income and reducing risk investments.

Evolution of household opportunities in Serbia depending on the level of disposable income, development of capital market, its instruments and the main participants in the market, but also on the level of regulatory improvements to put incentives for household investment. This should be done in cooperation between representatives of monetary and fiscal policy, non-banking sector and delegate of household. Further work on the promotion of educational activities, primarily financial literacy and increased level of financial inclusion, is of great importance.

The topic of household investment opportunities is very inspiring and challenging for further research, bearing in mind that previous research efforts have not dealt much with the analysis of this topic on the example of Serbia. Further exploring could be focused on comparative analysis of investment opportunities in countries by region, such as in Slovenia, Croatia, Montenegro, Bosnia and Hercegovina. Also, such an analysis may be preferred to see the development of investment opportunities of the household in those countries that could potentially be implemented in Serbia. Open question for further analysis of this topic are numerous. From a Government perspective, as well as the Security Exchange Commission, they are connected to the regulatory framework to provide impulsion on household to increase its investment, but also on further development of the capital market. From the side of monetary authority continuation of work could be directed at the promotion of dinar savings and dinar securities to strengthening confidence in the national currency and promoting its use in the financial system, which is in accordance with Strategy of Dinarisation. All previous mentioned measures should be implemented in a systemic and sustainable way, without jeopardizing macroeconomic and financial stability. Only thought higher participation of household in the financial market economy can generate the bigger impetus for further development and growth.

REFERENCES

Association of Serbian banks, <http://www.ubs-asb.com/Default.aspx?alias=www.ubs-asb.com/en>

Barber, B. and Odean T. (2011), „The Behavior of Individual Investors“, available at SSRN: <https://ssrn.com/abstract=1872211> or <http://dx.doi.org/10.2139/ssrn.1872211>

Božić, D. i Todorović T. (2009), „Aktivni učesnici na tržištu kapitala“, Škola Biznisa Naučnostručni časopis, Pp. 49-60

Breuer, W., Riesener M. and Salzmann A. J. (2014), „Risk aversion vs. individualism: What drives risk taking in household finance?“, *European Journal of Finance*, Volume 20, Number 5, 4 May 2014, Pp. 446-462

Brown, M. and Graf R. (2012), „Financial Literacy, Household Investment and Household Debt: Evidence from Switzerland“, *University of St Gallen, Swiss Institute of Banking and Finance (S/BF – HSG), Working Papers on Finance No. 13/1*, January 2013, Pp. 1-31

Campbell, J. (2006), „Household Finance“ National Bureau of Economic Research, *NBER Working Paper Series*, Working Paper 12149, March 2006, Pp. 1-71

Central Securities Depository and Clearing House <http://www.crhov.rs/index.cfm?jezik=en>

Davis, H. (1976). „Decision Making within the Household“, *The Journal of Consumer Research*, Vol. 2, No. 4. (March 1976), Pp. 241-260

Donkers, B. and van Soest A. (1999). „Subjective measures of household preferences and financial decisions“, *Journal of Economic Psychology*, Pp. 613-642

Ellis, K., Lemma A. and Rud J.P. (2010), „Investigating the impact of access to financial services on household investment“, *Overseas Development Institute*, August 2010, Pp. 1-75

European Bank for Reconstruction and Development (EBRD), EBRD launches first supranational bond in Serbian dinars, <https://www.ebrd.com/news/2016/ebrd-launches-first-supranational-bond-in-serbian-dinars.html>

Gaudecker von, H. M. (2011), „How does Household Portfolio Diversification Vary with Financial Literacy and Financial Advice?“, *Network for Studies on Pensions, Aging and Retirement*, DP 03/2011-026, (revised version December 7, 2013), Pp. 1-83

Gentry, W. and Hubbard, G. (2000), „Entrepreneurship and Housing Saving“, *National Bureau of Economic Research*, Working Paper 7894, Pp. 1-64

Insurance Law (RS Official Gazette, Nos 139/2014)

Kelley, A. and Williamson, J. (1968), „Household Saving Behavior in the Developing Economies: The Indonesian Case“, *Economic Development and Cultural Change*, Vol. 16, No. 3 (April 1968), Pp. 385-403

Korniotis, G. and Kumar, A. (2009), „Do Older Investors Make Better Investment Decisions?“, *Review of Economics and Statistics*, Pp. 1-65

Law on Investment Funds (RS Official Gazette, Nos. 46/2006, 51/2009 and 31/2011)

Law on Personal Income Tax (RS Official Gazette, Nos 24/01, 80/02-others law, 80/02, 135/04, 62/06, 65/06-corrected, 31/09, 44/09, 18/10, 50/11, 91/11-CC, 93/12, 114/12-CC. 47/13, 48/13-corrected, 108/13, 57/14, 69/14-other law, 112/15, 5/2016-adjusted RSD amount, 7/2017-adjusted RSD amount, 113/2017 and 7/2018-adjusted RSD amount)

Law on Voluntary Pension Funds and Pension Schemes (RS Official Gazette, Nos 85/2005 and 31/2011)

Lusardi, A. (2008), „Household Saving Behavior: The Role of Financial Literacy, Information, And Financial Education Programs“, *National Bureau of Economic Research, Working Paper 13824*, Pp. 1-44

Malešević, Z. (2011), „Otvorenost finansijskog tržišta Republike Srbije za integraciju sa finansijskim tržištima zemalja EU“, *Škola biznisa, Broj 4/2011, UDC 336.76(497.11)*, Pp. 83-96

Mani, A. (2011), „Mine, Yours or Ours? The Efficiency of Household Investment Decisions: An Experimental Approach“, *University of Warwick, Working Paper Series Volume 2011, Number 64, Pp.1-45*

Martin, V. (2018), „Uticaj monetarne politike na izbor valutnog režima u dvovalutnom sistemu: primer Srbije“, *Doktorska disertacija, Ekonomski fakultet, Univerzitet u Beogradu*

National Bank of Serbia, Annual Financial Stability Report <http://www.nbs.rs/internet/english/90/fs.html>

National Bank of Serbia, Insurance Sector in Serbia – Third Quarter Report 2018, https://www.nbs.rs/internet/english/60/60_6/insurance_III_2018.pdf

National Bank of Serbia, Insurance Supervision, <https://www.nbs.rs/internet/english/60/index.html>

National Bank of Serbia, Memorandum on the Dinarisation Strategy December 2018, http://www.nbs.rs/internet/english/30/Memorandum_Dinarisation_Strategy_2018.pdf

National Bank of Serbia, Supervision of Voluntary Pension Funds Management Companies, <http://www.nbs.rs/internet/english/62/index.html>

National Bank of Serbia, Voluntary Pension Funds Sector in Serbia – Fourth Quarter Report 2018, http://www.nbs.rs/internet/english/62/62_2/vpf_IV_18.pdf

Public Debt Law (RS Official Gazette, Nos 61 from 18 July 2005, 107 from 23 December 2009, 78 from 19 October 2011, 68 from 4 August 2015, 95 from 8 December 2018)

Public Debt Management, Quarterly Report- March 2019, <http://www.javnidug.gov.rs/eng/default.asp?P=118&MenuItem=4>

Richard H. Jr A. (2005), „Remittances, Household Expenditure and Investment in Guatemala“, *Policy Research Working Paper, No. 3532. World Bank, Washington, DC*, Pp. 1-36

Security Exchange Commission Annual Activity Report for 2017, <http://www.sec.gov.rs>

Shaton, M. (2015), „The Display of Information and Household Investment Behavior“ *University of Chicago Booth School of Business, April 6, 2015*, Pp. 1-71

Statistical Office of the Republic of Serbia, <http://www.stat.gov.rs/en-US/>
