Articles Economic Alternatives, 2018, Issue 2, pp. 197-212

Contribution of the Investment Funds Industry to Development Performances of the Republic of Serbia

Miljan Leković[*], Dragana Gnjatović[**]

Summary

The level of economic development of the country is a key determinant of the achieved level of development of the respective investment fund sector. The tendency of the development of the investment fund industry in the world frames the need to examine its significance for the economies of individual countries. In this regard, the paper examines the achieved level of development of the Serbian investment fund industry and the contribution of this sector to the development performances of the Republic of Serbia. On the basis of the conducted analysis, it becomes clear that the Republic of Serbia significantly lags behind the countries in the region with regard to the development of the investment funds sector and that the modest economic strength of the Serbian investment funds implies a modest contribution of these institutional investments to economic development and growth of the country.

Key words: investment funds, investment diversification, development performances, Republic of Serbia

JEL classification: G23, E44

[*] Assistant Professor at University of Kragujevac, Faculty of Hotel Management and Tourism in Vrnjačka Banja, Department for Social Sciences and Informatics

[**] Professor at University of Kragujevac, Faculty of Hotel Management and Tourism in Vrnjačka Banja, Department for Social Sciences and Informatics

1. Introduction

The final consensus among economists about the emergence of the first investment fund has not yet been achieved. According to one understanding, Dutch King William The First set up the first investment fund back in 1822 with the intention of allowing small investments in foreign government loans. According to another view, Dutch merchant and broker Abraham van Ketwich gatherred the capital of individual investors in 1774 and created the first investment fund, called *Eendragt Maakt Magt,* according to the famous maxim of the Netherlands „unity creates strength“. The establishment of this investment fund was preceded by a financial crisis and van Ketwich wanted to attract small-scale investors with limited resources to diversify. Risk dispersion was achieved first of all by investing funds in foreign government bonds of Austria, Denmark, Germany, Spain, Sweden and Russia. Thus, investment funds were created when traders and brokers realized how to offer the public a wide range of investment opportunities (Rouwenhorst, 2004).

The first investment fund outside the Netherlands is the Foreign and Colonial Government Trust, founded in 1868 in London, and with the aim of providing medium-sized investors with the benefits of diversification that were only available to large capitalists by then. In the next seven years, eighteen investment funds were established in the capital of Great Britain. Also, during this period, more precisely, in 1873, Scott Robert Fleming founded the First Scottish American Investment Trust specialized for investing in US rail bonds. Both investment funds played an important role in the development of the investment fund industry and have been held ever since.

By the end of the 19th century and at the beginning of the 20th century, numerous closed-ended investment funds were established, primarily in the United Kingdom and the United States. The first open-ended investment fund with continuous emission and continuous buy-out of shares at the price proportional to the market value of its portfolio was the Massachusetts Investors Trust, founded in Boston in 1924. Today, open capitalization is the dominant model of investment fund organization, which suggests that the introduction of a continuous issue and purchase of shares may be the most important innovation in the history of investment fund development (Rouwenhorst, 2004).

According to Sasidharan and Mathews (2008), by the end of 1929, 19 open and 700 closed-end investment funds were operating successfully. However, the Great Depression that followed devastated the investment funds industry. The recovery was achieved only after the Second World War thanks to the bull market and a strong advertising campaign that attracted the middle class of savers. In 1954, the investment fund industry enjoyed a dymanic development, exceeding the level from the late 1929. The rise continued until the late 1960s, when the bear market, followed by the withdrawal of investment deposits, jeopardized the survival of investment funds.

The emergence of money market investment funds in the early 1970s provided for the survival of this industry, given that amid the crisis investors offer an alternative investment in relatively safe short-term securities. After the end of the crisis, the money from the money market returned to the capital market followed by a dynamic growth in the value of assets held by investment funds. In the new millennium, the rise of the investment funds sector achieved in the 1980s and 1990s has slowed down on two occasions: at the beginning of the 2000s, and especially during the credit crisis 2007-2009. Today, investment funds are among the most important financial institutions of modern financial systems. Total world assets managed by investment funds at the end of 2016 amounted to $ 40.4 trillion. The share of US investment funds in this amount is 47%, the share of European ones is 35%, while investment funds from the rest of the world account for only 18% of total assets (Investment Company Institute, 2017).

Bearing in mind the previously described tendency of the development of the investment fund industry in a historical perspective and the growing importance of such institutional investors on a global scale, there logically arises the question of their role and relevance for the economies of individual countries. In this regard, the research topic pertains to the level of development of Serbia's investment fund sector and its role in generating the economic growth and development of the Republic of Serbia. The aim of the paper is to identify the contribution of investment funds to the economic development of the Republic of Serbia, and outline the possible ways for improvement.

In accordance with the defined research topic and goal, this paper has set the following hypotheses:

Hypothesis 1: The Republic of Serbia significantly lags behind the countries in the environment according to the criterion of the achieved level of development of the investment fund industry.

Hypothesis 2: The investment funds sector modestly and insufficiently contributes to the financing of economic growth and development of the Republic of Serbia.

Taking into account the defined topic, goal and hypotheses, the concept of functioning of investment funds is discussed in the second part of the paper, after the preliminary consideration of the historical development of the world investment fund industry and the identification of the key advantages and drawbacks of putting money in investment funds. The third part of the paper provides a detailed overview of the situation and structure of the Serbian investment funds industry. In the fourth part, a comparative analysis of the development of the investment funds industry of the Republic of Serbia and countries of Central and Eastern Europe is carried out, which should presumably expose both the achieved level of development and the importance of the Serbian sector of investment funds for the national economy. Finally, in the last, concluding part of the paper, the above views are summarized and the prerequisites and perspectives of the development of the investment fund industry in the Republic of Serbia are examined.

2. The concept of functioning of investment funds

Investment funds are important participants in modern financial systems, and investment in investment funds is the most significant form of indirect portfolio investment (Leković, 2014, 72). Investment funds perform the function of financial intermediaries that pool individual investor funds, and then invest the associated funds in different types of assets, thus gaining numerous advantages for their shareholders.

The term used as a synonym for an investment fund is an investment company. According to Šoškić (2013), the term „fund" is often more popular in everyday communication, but the term „company" is, as a rule, more official. Considering the portfolio investment as a feature of investment funds, Vasiljević (2009) finds that a better name for these funds is the portfolio funds.[3]

The possibility of reducing the risk through diversification of investments is the reason for investment funds' interest in investing in the portfolio of securities. Diversification is carried out with the aim of eliminating non-systemic risk while maintaining the unchanged expected return on the portfolio. Evans and Archer (1968) concluded that an average of eight to ten shares in the portfolio is sufficient to achieve the greatest possible level of diversification. The authors claim that the portfolio created from fifteen stocks is completely diversified, which is why further increase in the number of shares in the portfolio does not affect the risk reduction. On the other hand, recent research (Statman, 2004; Benjelloun and Siddiqi, 2006) shows that the optimal number of shares in the portfolio grew from ten to fifteen shares from the early 1950s to a couple of hundred stocks at the beginning of the 21st century. These authors argue that the size of the portfolio should be increased as long as the marginal benefits of diversification in terms of reduced risk are greater than the marginal cost of diversification in terms of increased portfolio management costs. Growth in portfolio size reduces portfolio risk, but also increases portfolio management costs (Benjelloun, 2010).

It should also be noted that the conclusions of the survey of the optimal size of the portfolio in the bond market are highly correlated with the conclusions that

[3] One should also distinguish a management company which manages several investment funds, which is why it is called the investment fund management company.

concern the stock market. The results of a study conducted by McEnally and Boardman (1979) suggest that eight to sixteen bonds in the portfolio are sufficient for a significant reduction in volatility, while newer date studies, such as those performed by Dbouk and Kryzanowski (2009), suggest that an optimal portfolio includes a larger number of components, usually from twenty-five to forty bonds.

Investment funds, as joint venture investment mechanisms are suitable for investments of the general public, regardless of the level of knowledge and the level of available capital. Investing in investment funds, as well as any other investment, carries a certain risk that depends primarily on the investment policy of the fund. Each investment fund has a transparent investment policy, an investment strategy and investment goals, on the basis of which a potential investor chooses the fund that suits him most, starting from his own preferences. Choosing an investment fund by investors is essentially the choice of a concrete investment strategy, which enables its personalization. It is important to point out that after investing money in the fund, the investor cannot influence the change of the fund's strategy, at least not directly. The indirect impact is nevertheless possible, since the abandonment of a particular investment fund by a large number of investors represents a clear signal to the board and financial advisors to change the investment strategy.[4]

According to Khorana and Servaes (2008), there are three types of investors in investment funds: naive investors, informed investors and up-to-date investors. Naive investors are insufficiently informed, not aware of all the costs that investment funds generate, they do not understand the impact of fund fees, and they are easily convinced through the marketing activities in which funds and when to invest. On the other hand, informed investors are considerably more careful and aware of both the potential returns and the associated investment risks. Informed investors have relevant information and enviable knowledge in the field of finance, but they are not familiar with the results of the latest research. Finally, up-to-date investors use the latest knowledge and the results of the latest research in the process of making investment decisions. They are divided into up-to-date investors with modest wealth and up-to-date investors with substantial wealth. Up-to-date investors with modest wealth continue to put money in investment funds, basically in the cheapest indexed funds, and the rest in line with the results of the latest research. On the other hand, up-to-date investors with substantial wealth apply a do-it-yourself approach by copying investment strategies of successful investment funds.

The ownership of the investor over the fund is proportional to the number of shares purchased, that is, the investment units. The shareholders of the investment fund are its direct owners while at the same time being the indirect owners of the financial assets held by the fund. By investing in investment funds, investors gain multiple benefits, such as easy and inexpensive access to the financial market, professional asset management, higher liquidity of investments, potentially higher yields than savings deposits in banks, access to high-yield securities available only in large blocks. Also, buying shares of investment funds is the cheapest way of diversifying investments, and the diversification of investments is the biggest guarantee of security of the fund's assets The degree of diversification of investment,

[4] When selecting an investment fund, investors have the opportunity to use information provided by companies for independent investment research. Among these companies, the most famous are Morningstar and Lipper Analytical, which allow comparison of the performance of thousands of investment funds.

from the perspective of an individual investor, is limited by the amount of money available for him to invest. However, in the case of investing in investment funds, even with minimal investment in fund shares, the investor becomes the co-owner of highly diversified assets of the fund (Muminović and Pavlović, 2006). It is important to note that, thanks to the economies of scale and the stronger negotiating position of the fund, all costs such as transaction costs, custodial fees, recordkeeping costs, and costs of contracting and processing information are lower for investment funds than for individual investors.

On the other hand, the key disadvantage of investing in investment funds pertains to the fact that investors bear the entire investment risk, though they do not have the full return because most funds charge front-end fee/ sales charge, back-end fee/redemption fee, management fee/ advisory fee, fee for marketing and distribution services (called *12(b)-1 fee* in the United States), etc. According to Khorana et al (2009), fund fees vary substantially from fund to fund and from country to country. Fees are lower for larger funds and fund families, index funds, funds of funds, guaranteed funds, and funds that require a higher minimum investment. Also, fees are lower in countries with stronger investor protection, higher per capita GDP, a more educated population, an older and smaller domiciled fund industry, and a less concentrated banking sector.

Another disadvantage of putting money in investment funds is the fact that, as a result of a high diversification of investments, these funds usually only bring average market returns to their shareholders. Also, investors have been denied the ability to manage their tax liabilities, because determining the moment of selling assets from the portfolio of the fund is under the direct control of a portfolio manager of an investment fund. The portfolio manager makes the decision on each individual investment, so that the determination of specific investments is beyond the control of the investor. By choosing an investment fund, the investor chooses a particular investment strategy but does not have control over investments in specific securities.

After the selection of the type of investment funds that corresponds to the investors' preferences and defined investment goals, the choice of a specific investment fund depends predominantly on the achieved and estimated performances of its portfolio. According to Ferreira et al (2013), fund and country characteristics play an important role in explaining the performance of investment funds portfolio. Among the fund characteristics, the most important are: fund and family size, age, fees and expenses, front-end and back-end loads, flows, past returns, management structure and number of countries where a fund is sold. On the other hand, as the most important country characteristics, the authors state country's level of financial development, trading activity and trading costs, investor protection and law enforcement.

Investment funds are more represented in the developed economies of the world, so the literature on the topic of investment funds in these countries is diverse and richly documented. Khorana et al (2005) point out that the investment fund industry is larger in countries with stronger rules, laws and regulations, with a richer and more educated population, with a larger gross domestic product per capita, lower transaction costs, and especially in countries where the rights of investors are better protected. On the other hand, the literature on the topic of investment funds is relatively scarce in less developed countries, for example the countries of Central and Eastern Europe, regardless of the fact that these countries, with the fall of socialism and the transition to a market-capitalist economic system, have attracted significant investor attention. Among recent research on the topic of investment funds of the countries of Central and Eastern Europe, a survey was published, conducted by Filip (2017) on the example of investment funds of the Czech Republic, Hungary and Poland. The author questioned and ultimately rejected the possible presence of the performance erosion effect in these countries, since the obtained results show a slightly positive relationship between asset size and returns. The conclusion of the research is that the mutual fund industries in the mentioned Central and Eastern Europe countries are still in the development phase and are able to increase the asset size while maintaining the efficiency. In addition, the research on the evaluation of the performance of investment funds portfolio carried out by Jagrič et al (2007) in Slovenia, Sajter (2011) in Croatia, Bialkowski and Otten (2011) in Poland, Filip (2013) in the Czech Republic is also significant.

Positive trends in the region of Central and Eastern Europe in the post-socialist period certainly affected the individual states and their markets, but not in the same intensity, as evidenced by significant differences in the level of development of their investment fund industry (Leković, 2014, 72).

3. Overview of the investment funds industry in the Republic of Serbia

The establishment and operation of investment funds in the Republic of Serbia was legally enabled by the adoption of the Law on Investment Funds at the end of 2006. However, even ten years after the adoption of this Law, the investment funds industry in the Republic of Serbia is quite underdeveloped. The strongest negative impression is the fact that in many investment funds the current value of an investment unit is lower than its initial value, that is, individual investor assets are less worthy than initially invested.

By establishing the first investment funds in 2007, the financial system of the Republic of Serbia has become closer to the developed European financial systems. The newly established investment funds industry gradually built up investor confidence thanks to its successful operations in 2007. This year was the most successful in the history of the Belgrade Stock Exchange, and therefore very favorable for the emergence and development of the investment funds sector. As of December 31, 2007, six open-end investment funds with total value of assets in the amount of 50,941,590 euros operated in Serbia, with the value of an average investment unit of 13.98 euros and average yield rate per investment unit of 13.79% (Securities Commission, 2008).

Unfortunately, the global financial and economic crisis followed with its far-reaching consequences. First of all, there was a decline in activity on the Belgrade Stock Exchange, that is, a fall in the value of stock exchange indices, followed by a sharp decline in the number and value of investment units, to which investors mostly responded by withdrawing their financial resources. The leading index of the Belgrade Stock Exchange BELEX15 lost about 3,000 index points in the period from April 30, 2007 to March 11, 2009, more precisely, its value decreased from 3283 to only 354 index points. The second index of the Belgrade Stock Exchange BELEXline, which describes most closely the total market trends, lost over 4000 index points in the observed period. On April 30, 2007 BELEXline ranked 4916 index points, while on March 11, 2009, its value was only 848 index points (Leković, 2014, 76).

The fall in the value of the stock exchange index also suggested a simulataneous decline in the value of investment units and the assets of investment funds. At the end of 2009, the total value of the assets of open-end investment funds in the Republic of Serbia stood at a mere 10,930,509 euros, showing a decrease by 78.54% compared to 2007 (Table 1). As a result of the crisis, the value of an average investment unit decreased from 13.98 euros in 2007 to 6.50 euros in 2008, and then to 4.99 euros in 2009, while the average rate of return per investment unit was extremely negative: it amounted to -55.07% and -20.38% in 2008 and 2009, respectively (Securities Commission, 2010). Following the stagnation of the investment fund industry in 2010, the growth in number and value of open-end investment fund assets in 2011 and 2012 indicated gradual recovery of this sector. As of December 31, 2012, 16 open investment funds operated in the Republic of Serbia, with the total value of assets in the amount of 20,441,699 euros, which was an increase of 87.02% compared to the same date of 2009 (Securities Commission, 2013).

Table 1. *Open-end investment funds in the Republic of Serbia in 2007-2015 period*

	2007	2008	2009	2010	2011	2012	2013	2014	2015
Number of funds	6	14	14	15	15	16	11	12	12
Asset value (in 000 €)	50,941.6	18,544.5	10,930.5	10,226.6	15,357.7	20,441.7	46,033.5	75,699.5	139,663.5
Change in the asset value	n.a.	-63.6%	-41.1%	-6.4%	+50.2%	+33.1%	+125.2%	+64.4%	+84.5%
Value of average investment unit (€)	13.98	6.50	4.99	5.86	7.89	8.77	10.42	8.76	8.22

Source: Author's calculations, based on data from Securities Commission, 2008-2016

A positive trend continued over the following three-year period. Regardless of the fact that as a result of realized takeovers and mergers the number of investment funds decreased in the 2013-2015 period, the value of assets of open-end investment funds increased significantly. During 2013, the assets of open-end investment funds doubled and reached a value of 46,033,489 euros (Table 1). Further growth in the value of property followed by 64.4% in 2014, ie, 84.5% in 2015. At the end of 2014, the total value of the assets of open-end investment funds in the Republic of Serbia amounted to 75,699,491 euros, to reach a record amount of 139,663,488 euros at the end of 2015 (Securities Commission, 2016).

In the examined period, closed-end investment funds emerged in 2008, as well as private investment funds that started operating in 2009. However, the number of these funds was small in the past period, and the assets managed by them were insignificant. The dominance of open-ended investment funds, both by number, and by the value of assets they manage, shows that investors in the Republic of Serbia attach the greatest importance to the liquidity of investments. As of 31 December 2015, 12 open and one closed-end investment funds operated in the Republic of Serbia, while private investment funds did not take part in the structure of the investment fund industry. Private investment funds were last active in 2013.

The structure of open-end investment funds in the Republic of Serbia consists of three types of funds: cash funds (funds for preserving the value of assets), balanced funds and equity funds (asset growth funds), while the income funds, regulated by the provisions of the Law on Investment Funds do not take part. The share of equity funds in the total assets of open-end investment funds is modest, amounting to 1.03%. More significant participation of 6.57% is realized by the balanced funds, while the most popular type of open-end investment funds are cash funds with a share of 92.40% (Table 2). Dominance of cash funds, as the least risky open-end investment funds, testifies to a high degree of repulsion towards the risk of investors in the Republic of Serbia.

Table 2. *Open-end investment funds in the Republic of Serbia on December 31, 2015*

Open-end investment funds	Net asset value of the fund		Net value of an investment unit of the fund
	(€)	Share in the fund structure	(€)
Ilirika Cash Dinar	2,372,743	1.70%	14.16
Ilirika Cash Euro	169,178	0.12%	10.85
KomBank Cash	6,812,260	4.88%	9.95
KomBank Foreign Exchange	114,273	0.08%	8.34
Raiffeisen Cash	72,585,574	51.97%	14.74
Raiffeisen Euro Cash	46,994,175	33.65%	9.56
Total cash funds	129,048,204	92.40%	11.27
FIMA ProActive	1,157,161	0.83%	3.95
Ilirika Dynamic	188,425	0.13%	2.76
Triumph	93,941	0.07%	1.83
Total equity funds	1,439,527	1.03%	2.85
Raiffeisen World	7,650,434	5.48%	12.43
Ilirika Balanced	1,089,142	0.78%	12.99
KomBank In Fond	436,181	0.31%	6.25
Total balanced funds	9,175,757	6.57%	10.56
Total open-end investment funds	139,663,488	100%	8.22

Source: Securities Commission, 2016

Table 2 also indicates the existence of large disparities when it comes to the participation of individual funds in the structure of total assets of the investment fund industry. For example, on 31 December 2015, Raiffeisen Cash fund participated with 72,585,574 euros or 51.97%, while the Triumph action fund realized participation of only 93,941 euros or 0.07% in the structure of total assets of open-end investment funds. In addition to the investment fund Triumph, there are three other open-end investment funds whose value is lower than the prescribed minimum cash capital of 200,000 euros. It is important to note that the assets of the two largest investment funds, Raiffeisen Cash and Raiffeisen Euro Cash, account for 85.62% of the total assets of open-end investment funds, while the share of the four smallest investment funds (Triumph, KomBank Foreign Exchange, Ilirika Cash Euro and Ilirika Dynamic) account together only for a share of 0.40%. These data expose not only the existence of large disparities, but also the presence of an excessively high degree of concentration in the investment fund industry.

Also, among the Serbian investment funds there are significant differences in the value of an investment unit. The highest value of an investment unit as of 31 December 2015 was recorded for Raiffeisen Cash to the amount of 14.74 euros; Ilirika Cash Dinar amounted to 14.16 euros, while the lowest value of the investment unit was recorded by the shares of Triumph and Ilirika Dynamic in the amount of 1.83 euros, that is, 2.76 euros. The average investment unit in the Republic of Serbia on the monitored day amounted to 8.22 euros.

4. Comparative analysis of the development of investment funds industry in the Republic of Serbia and Central and Eastern European countries

The above-mentioned data on the number of investment funds and the value of their assets do not provide a clear picture of the level of development of the investment funds industry in the Republic of Serbia unless they are compared with corresponding indicators in the investment funds industries of the countries that, like the Republic of Serbia today, have formerly been in the transition period (Table 3).

Table 3. *Number and asset value of investment funds in selected Central and Eastern European countries on December 31, 2015*

	Bulgaria	Croatia	Hungary	Poland	Romania	Slovenia	Serbia[5]
Number of funds	106	116	589	788	102	112	13
Asset Value (in 000 000 €)	409	2,289	18,105	59,140	8,994	2,309	141

Source: Author's calculation based on EFAMA, 2016 and Securities Commission, 2016

Comparative analysis reveals that all the investment fund industries shown are more numerous and economically more powerful than the investment fund industry of Serbia. This is not surprising, as the level of development of the investment funds industry of a country directly corresponds with the achieved level of economic development. Poland's investment fund industry is 60 times more numerous than the Serbian one and for even 59 billion euros stronger. The Hungarian industry is 45 times more numerous and about 18 billion euros stronger, while the least lagging behind the Serbian investment funds industry is recorded in relation to the Bulgarian investment funds industry, where at the end of 2015 there were 106 investment funds with a total value of assets of 409 million euros. The data from Table 3 confirm the validity of the hypothesis 1 and unambiguously show that the Republic of Serbia significantly lags behind the countries in the region when the development of the investment funds sector is at stake. The basic reasons for the described condition are (Leković, 2014):

- Insufficiently developed capital market – the capital market in the Republic of Serbia is shallow, narrow and insufficiently liquid;
- Delayed Legislation – The Law on Investment Funds, as a legal framework for the establishment and operation of investment funds in the Republic of Serbia, was only adopted at the end of 2006[6];
- Dominance of banks, i.e. loans as sources of financing – as a consequence, alternative sources of financing: equity

[5] In addition to the value of the assets of 12 open-end investment funds, the value of the assets of the closed-end investment fund Fima Southeastern Europe Activist, which as of December 31, 2015 amounted to 989 thousand euros, is also included.

[6] For comparison, the legal infrastructure of the Croatian investment funds industry was set up in 1995, while legal solutions in the area of investment fund operations in the remaining countries were made even earlier.

and debt securities are neglected; without them, the development of investment funds is unthinkable;

- Low level of investment culture – poor knowledge of the population and insufficient knowledge of the basic principles of investment fund business.

An additional reason for the lagging of the Serbian investment fund industry is the lack of voucher privatization. In most transition countries, investment funds appeared in the form of privatization funds, with the task of accelerating and facilitating the privatization process, which was implemented through the transfer of state capital through a voucher to citizens. Serbian legislation did not envisage vouchers, as well as privatization investment funds that could have been an important factor in the development of the Serbian investment funds industry. According to (Jovović, 2010), the Republic of Serbia is the only country in the region in which the privatization of social property has not been carried out using the model of mass voucher privatization.

In developed economies, investment funds are one of the generators of economic growth and economic development. Influencing economic growth and development, investment funds realize their basic functions that make them significant both for individual investors and for the economy as a whole, that are: transfer of funds from beneficial to deficient entities, efficient mobilization and optimal allocation of financial resources, provision of professional portfolio management services, reduction of investment risk through diversification of investments, reduction of transaction costs by achieving economies of scale, attracting foreign capital and encouraging privatization in transition countries, encouraging savings, concentration of capital, deepening and development of capital markets and fostering competition among financial institutions.

Bearing in mind the above, in addition to the level of development, it is important to point out the importance of the sector of investment funds for the economy of the Republic of Serbia. The best indicator of the importance of this sector for the country‘s economy is the share of the assets of investment funds in gross domestic product (GDP) (Table 4).

Table 4. *The share of open-end investment funds (OIF) assets in the GDP of the Republic of Serbia in the period 2007-2015*

	2007	2008	2009	2010	2011	2012	2013	2014	2015
GDP (in 000 000 €)	29,452	33,705	30,655	29,766	33,424	31,683	34,263	33,319	33,491
Asset Value of OIF (in 000 €)	50,941.6	18,544.5	10,930.5	10,226.6	15,357.7	20,441.7	46,033.5	75,699.5	139,663.5
Share of OIF assets in GDP	0.17%	0.06%	0.04%	0.03%	0.05%	0.06%	0.13%	0.23%	0.42%

Source: Author's calculation, based on data from National Bank of Serbia, 2016a and Securities Commission, 2008-2016.

The observed share at the end of 2007 amounted to 0.17%, in order to fall to negligible 0.03% in the next three-year period, under the influence of the global financial and economic crisis. Since 2011, the growth of the importance of this sector for the economy of the Republic of Serbia has started, as evidenced by the growing share of open-end investment funds assets in GDP, which in 2015 reached the maximum, but unfortunately, still modest value of 0.42%.

In order to present the economic environment in which investment funds operate and to obtain a realistic view of the position of investment funds in the financial sector of the Republic of Serbia, in the following table, in addition to the share of investment fund assets, the share of the assets of other financial intermediaries: banks, pension funds and insurance companies in GDP in the Republic of Serbia are presented.

Table 5. *Share of the asset value of financial intermediaries in GDP of the Republic of Serbia, 2008-2015*

	2008.	2009.	2010.	2011.	2012.	2013.	2014.	2015.
GDP (billions RSD)	2,745	2,880	3,067	3,408	3,584	3,876	3,908	4,043
Banks' asset value	1,777	2,160	2,534	2,650	2,880	2,846	2,969	3,048
Share of banks' asset value in GDP	64.7%	75%	82.6%	77.8%	80.4%	73.4%	76%	75.4%
Pension funds' asset value	5	7	10	12	16	20	24	29
Share of pension funds' asset value in GDP	0.18%	0.24%	0.33%	0.35%	0.45%	0.52%	0.61%	0.72%
Insurance companies' asset value	85	99	117	126	140	148	169	192
Share of insurance companies' asset value in GDP	3.1%	3.44%	3.81%	3.7%	3.9%	3.82%	4.32%	4.75%
OIF asset value	1.6	1	1.1	1.6	2.3	5.3	9.2	17
Share of OIF asset value in GDP	0.06%	0.04%	0.03%	0.05%	0.06%	0.13%	0.23%	0.42%

Note: The asset value of banks, pension funds, insurance companies and open investment funds (OIF) is expressed in billions of dinars.
Source: Author's calculation, based on National Bank of Serbia, 2013, 2016b and Securities Commission, 2009-2016.

The data from previous table unambiguously indicate that the financial sector of the Republic of Serbia is bank-centric. The dominant role of banks and the great importance of these financial intermediaries for the economy of the Republic of Serbia is presented with a high share of their assets in GDP of a country that ranged from 64.7% in 2008 to 75.4% in 2015. In the observed period, the largest share of banks' assets in GDP was recorded in 2010 when it amounted to 82.6%. In second place are insurance companies whose value of assets grew on average faster than GDP, resulting in an increase in the share of their assets in GDP from 3.1% in 2008 to 4.75% in 2015. In third place of importance for the economy of the Republic of Serbia are pension funds with a growing but still modest share in GDP, which rose from 0.18% to 0.72% in the observed eight-year period. Finally, the assets of open-end investment funds are the most modest and their share in GDP of the Republic of Serbia is the lowest, but still encouraging because of the trend of growth in their value and their share in GDP recorded since 2010.

Modest significance of the industry of investment funds for the economy of the Republic of Serbia is also shown by a comparative analysis with the countries in the region (Table 6). By comparative analysis of the share of investment funds assets in the GDP of the countries in the region, it is concluded that the development-oriented economy of the Republic of Serbia has a relatively weak base in the investment funds sector. The data from the table unambiguously show that the contribution of investment funds to the generation of economic growth and development is the smallest in the Republic of Serbia. The share of investment funds assets in GDP in the countries in the region is multiple times larger than the share of investment funds assets in the GDP of the Republic of Serbia. The economic significance and contribution of the investment fund sector is the highest in Hungary and Poland, and the smallest in the Republic of Serbia and Bulgaria. The modest economic strength of Serbian investment funds implies the modest contribution of these institutional investors to financing economic growth and development of the country, which confirms the validity of the hypothesis 2.

Table 6. *The share of investment funds assets in the GDP of the selected Central and Eastern European countries as of December 31, 2015*

	Bulgaria	Croatia	Hungary	Poland	Romania	Slovenia	Serbia
GDP (in 000 000 €)	44,162	43,897	108,748	427,737	160,353	38,570	33,491
Asset Value of IF (y 000 000 €)	409	2,289	18,105	59,140	8,994	2,309	141
Share of IF assets in GDP	0.93%	5.21%	16.65%	13.83%	5.61%	5.99%	0.42%

Source: Author's calculation, based on EUROSTAT, 2016 and EFAMA, 2016

The reasons for the small share of investment funds assets in the GDP of the Republic of Serbia should be sought in factors that limit the development of this industry. First of all, thanks to government insurance of bank deposits, investing in investment funds is less popular than saving money in banks. Unlike savings in a bank that yields a well-known yield in the form of contracted interest, investing money in investment funds is characterized by uncertainty of yield and increased risk. Also, bank loans are by far the most popular form of financing companies in the Republic of Serbia. Instead of collecting cash through a public offering of shares on stock exchange market or by issuing corporate bonds, Serbian companies are irrationally opting for bank loans although it is the most expensive form of financing. In this way, the capital market remains without a variety of marketable instruments by which investment funds would enrich their portfolio. Thus, capital market stays characterized by low transparency and low corporate culture of the companies. Alternative investment of funds in foreign capital markets is not a solution, since it implies not only higher transaction costs for funds, but also a direct outflow of capital from the country. This results in a slowdown in economic growth and the development of the country, which in the end is negatively reflected in the investment funds industry itself.

It should also be remembered that the difficult position of the investment funds is further complicated by the existing regulations, which often demotivate the citizens of the Republic of Serbia to invest in investment funds. For example, if they decide to withdraw their share in the fund, citizens are obliged to pay capital gains tax in the amount of 15%. In addition to the above, the unsuccessful and often unsuspecting privatization without a legal epilogue created an environment of insecurity, mistrust and a bad business climate that is not able to attract foreign investors.

In order to fulfill the set goal of the research, besides identifying the contribution of the investment fund sector to Serbia's economic development, it is further necessary to suggest the possible ways for the development of this sector and improve its role and relevance for the economy of the Republic of Serbia. The opportunity for the development of the investment funds sector in the Republic of Serbia should be sought in the advanced trading of both shares and government bonds, as well as in the trade of corporate and municipal bonds and the development of these market segments. By investing in corporate and municipal bonds, investment funds would contribute to the financial consolidation and operational efficiency of enterprises and local self-government units, while simultaneously exercising the right to reimbursement of invested funds with associated interest.

The future of the Serbian investment fund industry is determined by the further development of the capital market and financial infrastructure in general, by improving regulations, achieving macroeconomic and political stability, and educating and informing the investment community. Important preconditions for the development of this sector are the efficiency of the legal system, improvement of the business climate and investor confidence, completion of the process of privatization and transition accompanied by the exit of large public companies on the stock exchange, raising the standard of living of citizens as potential investors, harmonization of domestic legislation with European laws in this field and the application of positive experiences of countries with developed industry of investment funds.

5. Conclusion

The examination of the level of development and significance achieved by the investment fund sector in the Serbian economy has exposed its modest level of development and insufficient contribution to the country's economic development and performance. Over the following period, the Republic of Serbia is facing the challenge of developing the fund industry, and ensuring that it corresponds to the country's overall economic development. In the future, investment funds could possibly play an important role in attracting foreign capital, as well as in the efficient mobilization and optimal allocation of domestic capital, thus laying the foundation for a stable and sustainable development of the national economy.

The developed investment fund sector contributes to the successful transfer of funds from surplus to deficit economic entities, raising the quality of financial services due to increased competition among financial institutions, establishing liquidity and macroeconomic stability, strengthening the Serbian capital market and national economy. In order to ensure the long-term development of the investment fund industry in the Republic of Serbia, it is necessary to increase the supply and diversification of financial instruments, increase the level of transparency, improve the existing legal regulations, ensure political and legal stability, and pay particular attention to improving the business climate and corporate culture.

In the upcoming period, it is justified to expect that Serbia's sector of investment funds should make headway with regard to the growth of the general investment culture and the fact that there are significant assets in the country in banks with no greater possibility for alternative investment. The long-term development of this sector would almost certainly be ensured by the full membership of the Republic of Serbia in the European Union, which would provide the entire economy an opportunity for incomparably faster development. The accession of the Republic of Serbia to the

European family would signal to foreign investors that macroeconomic, legal and political stability has been achieved, which is the major condition for investing funds in the Serbian capital market and the Serbian investment fund industry (Leković and Stanišić, 2017).

The development of the investment fund industry also means the affirmation and development of the portfolio management function, whose benefits for the economy are multiple, and they primarily pertain to the efficient allocation of financial resources. The emergence of economically viable investment funds will contribute to the stability and development of the Serbian capital market, and stimulate the overall development of the national economy. In short, the development of the investment fund industry would accelerate the economic transition and the economic recovery of the Republic of Serbia.

References

Benjelloun, H. and Siddiqi, M. A., 2006. Direct Diversification with Small Portfolios. *Advances in Investment Analysis and Portfolio Management*, 2, pp. 227-252.

Benjelloun, H., 2010. Evans and Archer – Forty Years Later. *Investment Management and Financial Innovations*, 7(1), pp. 98-104.

Bialkowski, J. and Otten, R., 2011. Emerging Market Mutual Fund Performance: Evidence for Poland. *The North American Journal of Economics and Finance*, 22(2), pp. 118-130.

Dbouk, W. and Kryzanowski, L., 2009. Diversification Benefits for Bond Portfolios. *The European Journal of Finance*, 15(5-6), pp. 533-553.

European Fund and Asset Management Association (EFAMA), 2016. Trends in the European Investment Fund Industry in the First Quarter of 2016. Brussels. Available at https://www.efama.org/Publications/Statistics/Quarterly/Quarterly%20Statistical%20Reports/160526_Quarterly%20Statistical%20Release%20Q1%202016.pdf [last accessed 3 October 2017]

EUROSTAT, 2016. GDP and Main Aggregates – Selected International Annual Data. Available: http://ec.europa.eu/eurostat/web/products-datasets/product?code=naida_10_gdp [Accessed 5 September 2017]

Evans, J. L. and Archer, S. H., 1968. Diversification and the Reduction of Dispersion: An Empirical Analysis. *The Journal of Finance*, 23(5), pp. 761-767.

Ferreira, A. M., Keswani, A., Miguel, A. F. and Ramos, S. B., 2013. The Determinants of Mutual Fund Performance: A Cross-Country Study. *Review of Finance,* 17(2), pp. 483-525.

Filip, D., 2013. Returns and Persistence of Investment Fund Performance in the Czech Republic. *Prague Economic Papers*, 3, pp. 324-342.

Filip, D., 2017. Mutual Funds: Does the Performance Erosion Effect Exist? Evidence from the Czech Republic, Hungary and Poland. Finance a úvěr-Czech *Journal of Economics and Finance*, 67(6), pp. 512-538.

Investment Company Institute 2017. Investment Company Fact Book. Available: https://www.ici.org/pdf/2017_factbook.pdf [Accessed 12 September 2017]

Jagrič, T., Podobnik, B., Strašek, S. and Jagrič, V., 2007. Risk-adjusted Performance of Mutual Funds: Some Tests. *South-Eastern Europe Journal of Economics*, 2, pp. 233-244.

Jovović, M., 2010. Investment Funds in Developing Countries. *Economic Outlook*, 3, pp. 81-96.

Khorana, A., Servaes, H. and Tufano, P., 2005. Explaning the Size of the Mutual Fund Industry Around the World. *Journal of Financial Economics*, 78(1), pp.145-185.

Khorana, A. and Servaes, H., 2008. On the Future of the Mutual Fund Industry Around the World, in: Y. Fuchita and R. E. Litan (eds.), Pooling Money: the Future of Mutual Funds, Brookings Institution, 65-93.

Khorana, A., Servaes, H. and Tufano, P., 2009. Mutual Fund Fees Around the World. *The Review of Financial Studies*, 22(3), pp. 1279-1310.

Leković, M., 2014. Regional Differences in Development of the Investment Funds Industry in Serbia and Croatia. *Bankarstvo*, 43(5), pp. 70-85.

Leković, M. and Stanišić, S., 2017. Real Estate Investment Trusts Specialized for Investing in Hotels, in D. Cvijanović et al. (eds.), Tourism in Function of Development of the Republic of Serbia – Tourism Product as a Factor of Competitiveness of the Serbian Economy and Experiences of other Countries, Thematic Proceedings II, Vrnjačka Banja: Faculty of Hotel Management and Tourism in Vrnjačka Banja, 357-375.

McEnally, W. R. and Boardman, M. C., 1979. Aspects of Corporate Bond Portfolio Diversification. *The Journal of Financial Research*, 2(1), pp. 27-36.

Muminović, S. and Pavlović, V., 2006. Investment Funds – Unused Potential in Serbia. *Finance*, 61(1-6), pp. 29-53.

National Bank of Serbia, 2013. Annual Financial Stability Report (in Serbian). Available: https://www.nbs.rs/internet/latinica/90/90_2/finansijska_stabilnost_2013.pdf [Accessed 31 January 2018]

National Bank of Serbia, 2016a. Key Macroeconomic Indicators (in Serbian). Available at https://www.nbs.rs/internet/cirilica/80/index.html [last accessed 2 October 2017]

National Bank of Serbia, 2016b. Annual Financial Stability Report (in Serbian). Available at https://www.nbs.rs/internet/latinica/90/90_2/finansijska_stabilnost_2016.pdf [last accessed 31 January 2018]

Rouwenhorst, G. K., 2004. The Origins of Mutual Funds. Working Paper No. 04-48, Yale International Center for Finance.

Sajter, D., 2011. Can Croatian Fund Managers Create Alpha Returns? Performance of Some Mutual Funds in Croatia. *Economic Review*, 62(5-6), pp. 248-266.

Sasidharan, K. and Mathews, A. K., 2008. Financial Services and System. New Delhi, India: Tata McGraw-Hill Publishing Company Limited.

Securities Commission, 2008. Annual Activity Report of the Republic of Serbia Securities Commission, January-December 2007 Belgrade (in Serbian). Available at http://www.sec.gov.rs/index.php/en/about-us/internal-documents/commission-reports?task=document.viewdoc&id=327 [last accessed 1 October 2017]

Securities Commission, 2009. Annual Activity Report of the Republic of Serbia Securities Commission, January-December 2008 Belgrade (in Serbian). Available at http://www.sec.gov.rs/index.php/en/about-us/internal-documents/commission-reports?task=document.viewdoc&id=332 [last accessed 1 October 2017]

Securities Commission, 2010. Annual Activity Report of the Republic of Serbia Securities Commission, January-December 2009 Belgrade (in Serbian). Available at http://www.sec.gov.rs/index.php/en/about-us/internal-documents/commission-reports?task=document.viewdoc&id=333 [last accessed 1 October 2017]

Securities Commission, 2011. Annual Activity Report of the Republic of Serbia Securities Commission, January-December 2010 Belgrade (in Serbian). Available at http://www.sec.gov.rs/index.php/en/about-us/internal-documents/commission-reports/109-annual-activity-reports [last accessed 2 October 2017]

Securities Commission, 2012. Annual Activity Report of the Republic of Serbia Securities Commission, January-December 2011 Belgrade (in Serbian). Available at http://www.sec.gov.rs/index.php/en/about-us/internal-documents/commission-reports/109-annual-activity-reports [last accessed 2 October 2017]

Securities Commission, 2013. Annual Activity Report of the Republic of Serbia Securities Commission, January-December 2012 Belgrade (in Serbian). Available at http://www.sec.gov.rs/index.php/en/about-us/internal-documents/commission-reports/109-annual-activity-reports [last accessed 2 October 2017]

Securities Commission, 2014. Annual Activity Report of the Republic of Serbia Securities Commission, January-December 2013 Belgrade (in Serbian). Available at http://www.sec.gov.rs/index.php/en/about-us/internal-documents/commission-reports?task=document.viewdoc&id=331 [last accessed 3 October 2017]

Securities Commission, 2015. Annual Activity Report of the Republic of Serbia Securities Commission, January-December 2014 Belgrade (in Serbian). Available at http://www.sec.gov.rs/index.php/en/about-us/internal-documents/commission-reports?task=document.viewdoc&id=6256 [last accessed 3 October 2017]

Securities Commission, 2016. Annual Activity Report of the Republic of Serbia Securities Commission, January-December 2015 Belgrade (in Serbian). Available at http://www.sec.gov.rs/index.php/en/about-us/internal-documents/commission-reports?task=document.viewdoc&id=6674 [last accessed 3 October 2017]

Statman, M., 2004. The Diversification Puzzle. *Financial Analysts Journal*, 60(4), pp. 44-53.

Šoškić, D., 2013. Securities: Portfolio Management and Investment Funds. Belgrade, Republic of Serbia: Economic Faculty, University of Belgrade (in Serbian).

Vasiljević, B., 2009. Principles of Financial Markets. Belgrade, Republic of Serbia: Publishing House “Zavet” (in Serbian).