

Financial Investments in Romania. A Comparative Analysis between Open-end Mutual Funds and Bank Deposits

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Abstract

Despite the failures that investment funds have registered in Romania by the year 2000, they are a financial instrument chosen by more and more people to capitalize on their savings. Therefore, open-end investment funds have had a steady growth trend in Romania over the past 10 years; their net asset value increased by 24 times and the number of investors tripled. In this context, the purpose of our paper is to present possible factors that have caused this increase. Particularly, the empirical research focuses on studying the links that might exist between open-end investment funds, bank deposits and interest rates on bank deposits. The correlations between these variables were analysed by computing the Pearson's correlation coefficient. The results highlight a high negative relationship that exist between net asset value of investment funds and bank interest. Nevertheless, it has been found that bank deposits are related neither to the interest rate nor to the open-end investment funds.

Key words: return of investment, interest rate, open-end mutual fund, retail investors, bank deposits

J.E.L. classification: E21, E22, E43

1. Theoretical background

Bank deposits have been until recently the most common solution for the wider population to invest their money. These are usually guaranteed by the state up to a certain amount, which is why the risk of losing money is very low, but at the same time the yield is quite low. An alternative solution for people seeking higher earnings is open-end mutual investment funds. Open-end funds collect money from shareholders, invest this money in securities and promise to issue and redeem investor shares at net asset value (NAV) on a daily basis (Rohleder et al., 2017). In contrast to closed-end funds, open-end funds are available for subscription and repurchase on a continuous basis (Prakash, 2017). They do not have any restrictions on the number of units a fund will issue. Thus, an open-end fund manager will issue units as long as there is demand from investors. Also, these types of funds do not have a fixed maturity period and their key feature is liquidity. While an investment in a close-end fund is redeemable only at maturity, by choosing an open-end fund (OEF) an investor may withdraw his money whenever he wants. Open-ended funds are therefore one of the best investment solutions for small investors, as it offers them the opportunity to have a diversified portfolio at an affordable cost, without having all the financial knowledge required to directly invest money on the stock exchange (Mishra & Sharma, 2017).

Even though mutual funds have started to be analysed since the 1960s (Sharpe, 1966), public interest in this form of investment has been increasing in recent years, and OEFs levels have reached record values in more European countries (Cozma Ighian, 2012). For instance, in Italy this type of funds increased by 95% in 2015 compared to 2011 (Crespi, 2017). In Romania, the number of OEFs increased from 52 to 75, and their net asset value increased from 940 million lei to 21,874.82 million lei during the period 2008-2016. In China, the first open-ended fund was

established in 2001, and by 2013 the number of OEFs increased to 1421 (Yin et al., 2017). Thus, given these international developments, we come to ask ourselves what are the factors that have led to such a rapid and major increase of investments in open-end funds. In Crespi's opinion (2017), retail investors have turned to other types of investments because interest rates on bank deposits have become almost zero, while Yin et al., (2017) argue that investment style has drifted into open-end funds due to the shock effects of stock price volatility.

Other possible questions are how long these funds will continue to grow and how their future performance will look like. Regarding this, Mishra & Sharma (2017) have identified that the return on investment and the level of risk is influenced by the period of investment. According to the authors, both risk and return tend to become higher as the time horizon increases (Mishra & Sharma, 2017). Chen & Chen (2017) have examined the performance of Chinese mutual funds and concluded that these funds had significant superior risk-adjusted returns due to stock-picking abilities of Chinese equity fund managers. De Mingo-López & Matallín-Sáez (2017) consider that an important role in the OEFs management is played by the ability to estimate the fund investors' demand based on the total net cash flows experienced by a fund during a period. Other authors have argued that high investor flows may have a negative impact on the performance of mutual funds and suggested the use of complex tools such as derivatives or leverage strategies to manage the negative effects (Rohleder et al., 2017).

At the same time, researchers have focused on studying new ways of building an investment portfolio in order to increase the returns of open-end funds. In this respect, Crespi (2017) discusses the possibility of using the financial resources attracted by open-end investment funds to finance SMEs. The same idea is supported by Chernenko et al. (2017) who show that there is a recent trend of OEFs to invest in convertible preferred stocks issued by highly valued, private-owned start-ups.

Despite numerous studies in this field, the factors on which to predict whether the value of OEFs will further increase and how much it will increase have not yet been clarified. Thus, starting from Crespi's (2017) opinion that the decline in interest rate is an important cause of OEFs growth, we have analysed these two variables in the Romanian economic context, with the purpose to give an answer to the following questions: what effect had the decline of interest rate on the saving behaviour of Romanians? Have people quit to keep their money in bank deposits in favour of higher-yielding investments? What is the evolution of open-end funds compared to bank deposits? Is there a correlation between these two forms of investment? What influence does the economic context have on the structure of OEFs? At the same time, presuming that bank deposits became an uninteresting investment for people due to their very low interest rates, the empirical research aimed at verifying the following hypotheses:

- H1: There is a relationship between open-end investment funds and bank deposits;
- H2: There is a negative relationship between the net asset value of open-end investment funds and the interest rate on bank deposits;
- H3: There is a negative relationship between the number of investors in OEFs and the interest rate on bank deposits;
- H4: There is a negative relationship between the interest rate and the amount of the bank deposits.

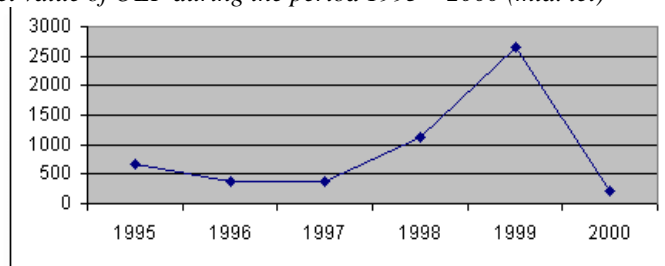
2. Research methods

To test the above hypotheses, we first created a database with the values recorded in the last ten years (2008-2017) by the following variables: the net asset value of the Romanian OEFs, the number of investors in different types of OEFs, the average value of bank deposits and the average interest rates on bank deposits. The data were collected from the reports of the National Securities Commission (NSC) and Financial Supervisory Authority (FSA), as well as from the interactive database provided by the National Bank of Romania (NBR). After collecting the data set, the next step was to analyse them with the help of IBM SPSS 22 and Microsoft Excel 2013 programmes. The most important results and conclusions are presented in the next sections.

3. Results and discussions

In Romania, the history of investment funds has started in 1993 when the Mutual Fund of Business People (MFBP) is established based on Ordinance no. 24/1993. In April 1996, shortly after its establishment, the net asset value of this investment fund decreased by more than 40% due to bad management. Despite this, the Romanians continued to invest in mutual funds probably because of the desire to achieve significant gains on their savings. Thus, between 1997 and 1999, the number of investors increased exponentially due to the mirage created by the huge but unreal yields reported by the National Investment Fund (NIF). As the net asset value was increased artificially, NIF soon failed to cover withdrawals from the new capital attracted from the investors, which is why it collapsed in April 2000. This led to a decrease in the number of investors from 239,382 registered at the end of 1999 to 46,736 in December 2000.

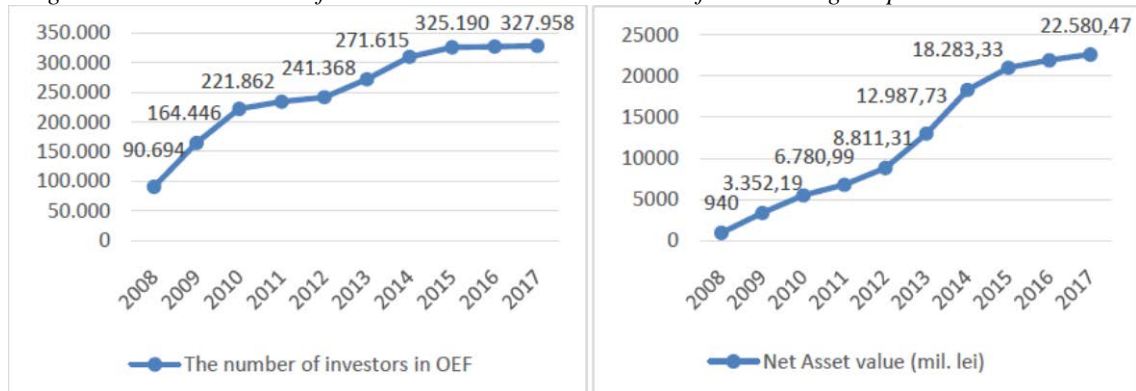
Figure no. 1. Net asset value of OEF during the period 1995 – 2000 (mld. lei)



Source: (NSC, 2000)

Romanian OEFs rebounded on a slightly upward trend after the major fall encountered in 2000. Therefore, the number of investors doubled in 2008 compared to 2000. Also, figure no. 2 shows that this growing trend continued until today.

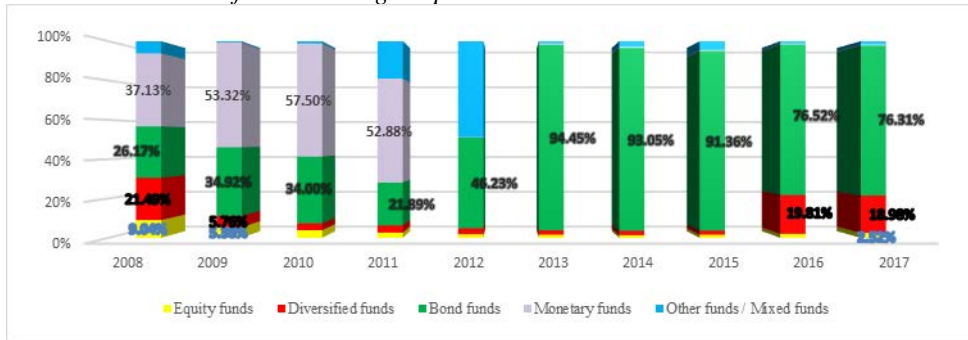
Figure no. 2. The number of investors and the net asset value of OEF during the period 2008 – 2017



Source: adapted after FSA (2017) and NSC (2017)

It is worth to mention that during the economic crisis of 2008-2010 the Romanian OEFs experienced an exponential growth comparable to the increase recorded in the period 1997-1999. Fortunately, this rise was not preceded by a fall of OEFs as happened in 2000. Thus, this major growth in times of crisis can be interpreted as an improvement in the level of financial education of Romanian investors. The decrease of stock price as a result of the stock market collapse in 2008 was a good opportunity to invest, and the OEFs evolution shows that many investors have chosen to take advantage of this opportunity.

Figure no. 3. The structure of OEFs during the period 2008 – 2017

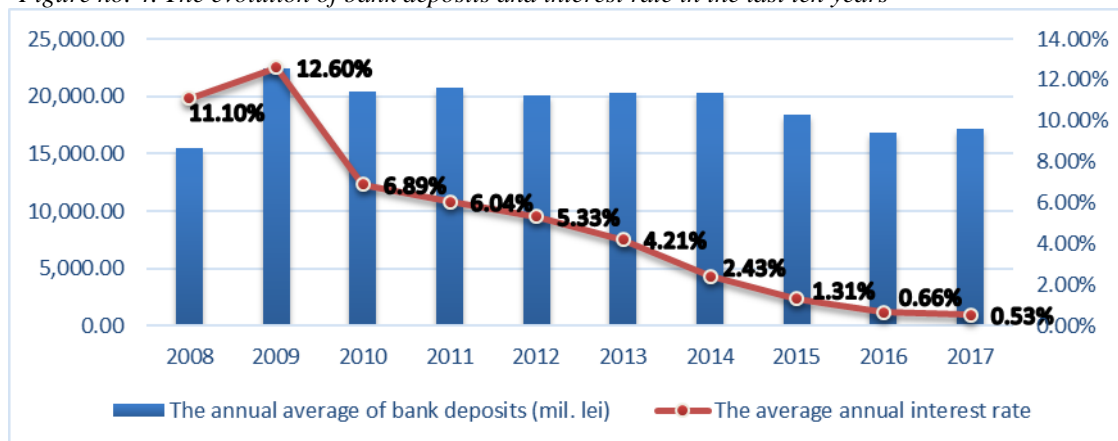


Source: adapted after FSA (2017) and NSC (2017)

Regarding the structure of OEFs, from figure no. 3 we can see that investments in monetary funds prevailed as long as interest rates on deposits were high. Subsequently, as interest rates have started to fall, it can be noticed that bond funds have reached more than 90% of OEFs' net assets. Also, starting from 2016 there has been an increase in placements made in diversified funds and in equity funds, to the detriment of bond funds.

During the period 2016-2017 the interest on bank deposits reached the lowest level in the last 10 years as well. Despite the dramatic drop in interest rates, it is noticed that the value of deposits has fallen to a much lower extent. Therefore, by correlating the data from figures 2 and 4 we can conclude that the major increase of the OEFs cannot be attributed to a decrease of bank deposits. However, we can notice a negative relationship between the interest rate on deposits and the growth of the OEFs.

Figure no. 4. The evolution of bank deposits and interest rate in the last ten years



Source: adapted after NBR (2017)

Given these preliminary conclusions, we wanted to find out the intensity of the relationships between variables. In this respect, we have done the statistical data processing in the IBM SPSS 22.0 programme. Firstly, we analysed the normality and symmetry of the data distribution using the Kolmogorov-Smirnov (KS) and Shapiro-Wilk (SW) tests, as well as the Skewness and Kurtosis coefficients. The results of the KS and SW tests indicate that the significance threshold of all variables is above the minimum level of 0.05. Hence, since the two tests are insignificant, we accept the null hypothesis that there is no difference between empirical distribution and normal distribution (Opariuc-Dan, 2011). Also, both for the Skewness coefficient and for the Kurtosis coefficient, the ratio between their values and the standard error returns values below the acceptable maximum threshold of 1.58 for each variable (Opariuc-Dan, 2009: 194), which allows us to say with 95% probability that we are dealing with an approximate symmetrical distribution.

Table no. 1 Normality and symmetry of data distribution

Variable	Kolmogorov-Smirnov			Shapiro-Wilk			Skewness	Std. Error of Skewness	Kurtosis	Std. Error of Kurtosis
	Statistic	df	Sig.	Statistic	df	Sig.				
Average interest on bank deposits	.138	10	.200	.911	10	.286	0.714	0.687	-0.48	1.334
Number of investors in OEFs	.170	10	.200	.891	10	.172	-0.961	0.687	0.448	1.334
Net asset value of OEFs	.170	10	.200	.903	10	.235	0.073	0.687	-1.801	1.334
Average value of bank deposits	.261	10	.051	.924	10	.390	-0.446	0.687	-0.713	1.334

Source: Authors' contribution

Because the data distribution is relatively normal, we used the Pearson product-moment correlation coefficient to verify the hypotheses.

Table no. 2 The correlations between variables

		Average interest on bank deposits	Number of investors in OEFs	Net asset value of OEFs	Average value of bank deposits
Average interest on bank deposits	Pearson Correlation	1	-.951**	-.940**	.307
	Sig. (2-tailed)		.000	.000	.388
	N	10	10	10	10
Average value of bank deposits	Pearson Correlation	.307	-.046	-.317	1
	Sig. (2-tailed)	.388	.899	.371	
	N	10	10	10	10

** . Correlation is significant at the 0.01 level (2-tailed).

Source: Authors' contribution

From table no. 2 we see that there is a significant and very strong negative correlation between the number of investors in OEFs and the average interest on bank deposits ($r = -0.951$, $n = 10$, $p < .001$), allowing us to accept the hypothesis 3 with a 99% degree of certainty. We can also notice a negative and strong correlation between the net asset value of OEFs and the average interest on bank deposits ($r = -0.940$, $n = 10$, $p < .001$), which is why the hypothesis 2 is confirmed as well.

As regards the average value of bank deposits, we have found that this variable shows significant correlations neither with the net asset value of OEFs ($r = -0.317$, $n = 10$, $p = .371$), nor with the interest rates on deposits ($r = .307$, $n = 10$, $p = .388$). For this reason, hypothesis 1 and 4 are rejected. Surprisingly, we can notice that a relatively stable part of the Romanians prefers to keep their money in bank deposits despite the low interest rates. At the same time, the increase of OEFs while the value of bank deposits remained almost unchanged shows that the number of people who decide to invest their money in the financial market has risen over the last 10 years. Hence, if in other countries the two investment instruments compete to attract more savings, we notice that this competition is almost non-existent in Romania. A possible explanation is the fact that deposits and OEFs may have different target segments. More precisely, older people who suffered from irresponsible management of mutual funds in the time frame 1993-2000 are afraid that there is a high probability of losing all their money by investing again in OEFs. In this regard, they prefer to earn less by placing money in bank deposits, but to be sure that their savings are safe. On the other hand, there might be some young people with relatively high incomes (for instance, those who are working in the IT sector) who choose to invest their money in the OEFs due to the higher returns they have compared to bank deposits. These people are willing to take higher risks, have a different financial education, and their trust in the management system of mutual funds has not been affected by a direct contact with the crises that occurred between 1993 and 2000.

4. Conclusions

Empirical research revealed a strong negative correlation between open-end investment funds and interest rates, but this link cannot be explained by a decrease of bank deposits. Another important output of the research is that interest rate does not have a significant correlation with the level of bank deposits, which means that the demand / supply of bank deposits on the Romanian market have a very low price (interest rate) elasticity.

However, these results cannot be generalized and should be considered through their limits. One of the most important is that our data reflected the evolution recorded by OEFs and bank deposits only on the Romanian market and over a short period of time. Therefore, we consider that our findings should be expanded through future research focused on analysing data from more countries and from a longer period. A high attention should also be given to the role played by economic crises in the increase of the net asset value of OEFs. As we could see, the most significant increases of the Romanian OEFs overlapped with the economic crisis that occurred between 1997-1998 and 2008-2009. Today, there are almost 10 years since the last economic recession and many economists speak about the possibility of having a new crisis in the next two years due to the current economic context. Thus, an important question is how mutual funds will evolve in case that a new crisis occurs and the interest rate starts to rise. At the same time, given the fact that the net asset value of investment funds did not become higher due to a decrease in bank deposits, the question is from where came the money that generated this increase. One possible explanation was that the new generations opt for placing their savings in OEFs rather than in bank deposits. However, considering the historical background of Romanian investment funds and the fact that the number of investors has grown only by 3.62 times while the net asset value of OEFs has increased about 24 times, we are wondering if this increase is justified by the new funds attracted from the investors or by the high returns on investments. Also, in case that NAV has increased mainly because of a high yield, we are wondering how much we can talk about a real and sustainable growth that will not lead to a new disaster (like the one from 1996 or 2000), in case that certain favourable factors emerge (such as the impossibility of covering withdrawals from the new funds attracted).

Therefore, given that open-end investment funds are a very new financial instrument on the Romanian market, with a history of less than 30 years, their functioning mechanism is still not well known by the large public and by those who choose to place their money in these funds. Based on these considerations, we believe that the results of our research may prove useful to those who want to invest in the financial market. By being aware of different factors that might influence the evolution of mutual funds, investors have a better chance of knowing when to enter an investment fund and when to leave it to avoid losses and maximize their returns. At the same time, this paper justifies its usefulness by the contribution it brings to the expansion of literature in the field of investment funds and by opening new research directions based on the findings that occurred by analysing open-end investment funds in Romania.

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