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Performance persistence of absolute return funds

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Abstract

The article presents a study of the performance persistence of returns on investment funds. The phenomenon of performance persistence determines the ability to predict the funds' rates of return, and it has a direct impact on the allocative decisions made by investors and fund managers who want to achieve above-average returns on investment. This is because an active approach to portfolio management prevails among the methods favoured by investment funds both in Poland and in the world, with returns on investment being the main determinant of capital inflow to the funds. Although it is emphasized in the literature that there is no guarantee that the investment performance of the past will be repeated in the future, nevertheless many studies have shown that it can be the case. The article presented a study of the performance persistence of absolute return funds operating on the Polish market in 2012-2015. The conclusions from the study are that less than half of the absolute return funds achieved their objectives, i.e. a profit in all market conditions, and that 70% of the funds available on the market earned returns higher than the risk-free rate of return.

Keywords: performance persistence, absolute return funds, financial market, risk free rate, winners and losers

1. Introduction

J. Hirschleifer in his article *Investment Decision Under Uncertainty: Choice-Theoretic Approaches*, published in 1995, stated that the investment process is the present sacrifice of current consumption for future and uncertain profits (Hirschleifer, 1965: 509). In the definition reference is made to profit and uncertainty which characterize each investment. Profit is the amount of expected rewards for sacrificing consumption, whereas uncertainty is the risk that the expected profit will not be achieved. The period of time in which the profit will be achieved may also change. These three factors, namely, profit, risk and time horizon are the fundamental characteristics of investment, and they can also be used to choose and compare investment. From the perspective of financial market participants, answering the question of whether and for how long the return on investment can be maintained at a rate specified for a given period of time, defined as the fund's performance persistence, is extremely important.

The phenomenon of performance persistence determines the possibility to predict the fund's rate of return and has a significant impact on the decisions concerning the allocation of investment on the market made by investors and fund's managers who want to achieve above average returns on investment. The present article aims to review the results of studies available in the literature concerning the performance persistence of investment funds, and to present a study of performance persistence of absolute return funds available on the Polish market. In addition, the study of performance persistence is supplemented by a comparison of the achieved returns on investment that were earned by the funds selected for analysis and measured with rates of return against the risk-free returns. This approach will allow for evaluating the quality of the management of the absolute return funds which are present on the Polish financial market. The article is divided into three parts – after the introduction, the performance persistence of investment funds, together with the ways of measuring it, are explained and followed by a review of the published sources available worldwide. The second part includes the methodology used to analyze absolute return funds, and the third and final section is devoted to the study of the absolute return funds operating on the Polish capital market in the years 2012-2015. The article closes with conclusions from the analysis and points to the significance of performance persistence for participants in the financial market. It is hypothesized that the Polish absolute return funds maintain the rate of returns and that they achieve returns regardless of the market situation.

2. Review of research results into the performance persistence of investment funds

In the literature performance persistence of investment funds is defined as the phenomenon consisting in maintaining their rate of returns. It is assumed that the funds' rate of return persist if (Perez, 2012: 82):

- the funds with low or negative profitability (rate of return) in one period achieve the same returns in the consecutive period of time; such funds are called losers and occupy low positions in the investment funds' ranking
- the funds with high profitability (rate of return) in one period achieve equally good investment returns in the next period; such funds are called winners and they occupy high positions in the investment funds' ranking

It should be added that performance persistence does not occur in the case of funds, which in the analyzed period after reaching positive (or negative) rates of return that gave them a high (or low) position in the ranking, did not earn similar returns on investment in the next analyzed period of time, by which their position in the ranking was different than in the earlier period. Rates of returns of investment funds are used to study performance persistence. To calculate them we use measures of profitability and efficiency based on the CAMP and APT capital market models that are derived from the classical portfolio theory of Markowitz. The Jensen alpha ratio is the most commonly accepted measure of the quality of investment portfolio management. A hedge fund manager focuses on achieving an unlimited rate of return and this means that the focus is not on beta risk but on alpha. In terms of statistics, as proposed by M.C. Jensen on the basis of the CAPM model (Jensen, 1968: 389), alpha is an intercept in a linear regression equation, assessing the efficiency of investment fund management. The CAPM model belongs to a group of models of the capital market, that is a market where all the investors meet in order to allocate available resources, and which is based on many simplifying and idealizing assumptions together with the actions of the investors (Davis, 2001: 152). Apart from Jensen's classical model, other multi-factor models are used to evaluate the performance of hedge funds in order to assess the types of risks taken by hedge funds. The ones most commonly used include:

- the three-factor model of Fama and French, which apart from the market risk takes into account the size of the fund and the book-to-market ratio of financial instruments (Fama, French, 1992: 427-465)

- the four-factor model of Carhart which is an extension of the Fama and French model by adding a *momentum* effect as a risk related factor[1] (Carhart, 1997: 57-81).

Many researchers who analyze the returns of hedge funds use all three models or their modifications and complement them with other risk factors (Koh et al., 2003). When analyzing the performance of hedge funds other measures of risk-weighted investment are used. Some researchers use the classical Sharpe (Schneeweis et al., 2002: 6-22) ratio as the main measure of the effectiveness of traditional investment funds or some modifications of this indicator, adapted to the characteristic features of hedge funds.

In order to check for the presence of performance persistence of the rates of return of investment funds contingency tables (Agarwal, Naik, 2002: 353) are the most frequently used method. These tables are built by ranking funds from the best to the worst in terms of their rates of return over a given period of time and then it is checked whether they reached the highest or the lowest rate of return in the next period. If the rates of returns for a given group of funds are above the estimated value (e.g. the median, the average rate of return for all analyzed funds, or the average rate of return for the best funds, which constitute, e.g. 25% of the analyzed sample) in two consecutive periods of research, and their investment returns persist, they can be called winners. The funds which in two consecutive periods of research showed poor investment returns, and in consequence were positioned at the end of the ranking among the weakest funds, which constitute, e.g. 25% of the analyzed sample, are called losers. Another method used to study the phenomenon of the performance persistence of investment funds is linear regression of the present and past rates of return of investment funds (Agarwal, Naik, 2000: 327). The positive and statistically significant beta coefficient means that the positive (negative) return of investment is maintained over two consecutive periods of research.

The question of performance persistence of investment funds was for the first time reported in the literature by W. Sharpe in 1966, who analyzed the rankings of funds that were calculated on the basis of the Sharpe ratio and the Treynor ratio estimated for the funds in successive periods of 10 years. The results obtained in Sharpe's study demonstrated statistically that there was a non-significant effect of performance persistence. The author's second conclusion was that the results do not constitute evidence that can be used in the process of forecasting future performance (Sharpe, 1966). Similar conclusions concerning lack of performance persistence of returns on investment funds in the periods of 10-12 years were also reported in studies by R. Carlson (1970) and M. Sarnat (1972). The first author conducted studies in which the successive test sample periods were shortened to 5 years, and showed a statistically significant effect.

The studies concerning the issue discussed in the present paper, that were conducted in the 1970s, focused on the quality of the management of investment funds' managers over long-term periods of time, counted in years. In general, the researchers usually failed to provide

[1] The *momentum* effect consists in expanding the portfolio by acquiring companies that have gained in value at the last moment and the sale of these securities, whose prices have fallen during this period.

evidence for sustained investment performance over a long period of time, usually over 10 years. In subsequent years the researchers analyzed the phenomenon under discussion over shorter periods of time. D. Hendricks, J. Patel and R. Zeckhauser, following their studies from the years 1974-1988, reported the occurrence of repetitive series of rates of returns among the US mutual investment funds and described this phenomenon as the “hot hands effect” (Hendricks et al., 1993: 93). This effect occurs when in the subsequent quarters the funds are supplemented by securities, which in the last four quarters, earned the highest returns, thus affecting the rate of returns of the funds that are significantly higher than the average rate of return of all funds. The opposite effect, called the “icy hands effect” occurs when the funds bring the lowest returns in the subsequent quarters. Hendricks and Zeckhauser analyzed the performance persistence of returns in the sample of 165 no-load equity funds. In order to evaluate the effect of performance persistence, the researchers used a total rate of return, the Sharpe ratio and alpha parameters determined for models which differ in the chosen benchmark portfolio. Evidence for the performance persistence of investment funds’ returns was also found by B. Lehmann and D. Modest in 1987, who emphasized that the returns are very sensitive to the kind of benchmark portfolio used in the analysis (Lehmann, Modest, 1987). Interesting results were reported by J. Christopherson and A. Turner (1991), and J. Bogle (1992), who found no evidence of the performance persistence of returns both, over a short period of time (1 to 3 years) and over a long-term period (10 years). The measure used in the first study included Jensen’s alpha from a single factor model indexed against the fund’s management style, whereas the second study used the total rates of returns to determine rankings, which were subsequently checked for performance persistence in the consecutive periods of time.

The performance persistence of returns was confirmed by D. Budiono and M. Martens who in 2010 published the results of their studies in which several thousands of US equity shares from 1962–2006 were analyzed for annual periods. The researchers concluded that the relationship between the volume of the returns and characteristics of the fund, which include the length of time in which it has been in operation, its investment management style and its size, have a significant bearing on the phenomenon. They argue that it is these features that greatly affect the high efficiency of investment funds’ management, which in turn determines the positions of the funds’ managers in the rankings (Budiono, Martens, 2010: 250). Other studies, which can be distinguished among many studies carried out at the turn of the century, include the work by S. Phelps and F. Detzel. The authors of these studies concluded that the effect of performance persistence is determined by the so-called macro persistence which stems from the values forming the fund’s portfolio and is not due to the managerial skills described as micro persistence. The researchers used as a measure the alpha parameter from a model, in which the independent variables included capitalization and the class of assets in which the fund invested.

In Poland the performance persistence of investment funds has started to be discussed on only recently. In 2008 research carried out by W, Patena and K. Żołyniak, who analyzed the period from 2004 to 2007, showed that the phenomenon did not occur on the Polish market (Patena, Żołyniak, 2008). Contradictory conclusions were drawn by K. Jackowicz and D. Filip in 2009, who carried out a study of the performance persistence of Polish stock investment funds and hybrid funds. The study of funds in the period 2000-2008 showed that on the Polish market the periods of performance persistence occured more often than the periods of reversal in the rates of returns (Jackowicz, Filip, 2009). The phenomenon of the performance persistence of investment funds operating on the Polish market was also analyzed by J. Czekaj and M. Grotowski (2014: 545) and K. Perez (2012: 81), but studies of these authors refer to traditional stock funds. The review of the research literature on the performance persistence of returns on traditional investment funds tends to confirm its occurrence over a short period of time.

In Poland the first absolute return funds with different characteristics from the traditional investment funds started to operate in 2005. These funds which are registered in Poland operate in accordance with Polish laws, and which aim to achieve above-average returns, regardless of the situation on the financial market, have certain characteristics of hedge funds (Aspadarec, 2013: 101). W. Aspadarec and S. Majewski were the first to study the phenomenon of the performance persistence of returns on absolute return funds, and following their analysis of the period 2012-2015, reported that although there was performance persistence in returns over a short period of time (two quarters), this tendency was not confirmed over a long period of time (four quarters). One quarter of the funds showed positive performance persistence and one quarter showed negative performance persistence when the two quarterly periods were taken into account. They therefore concluded that performance persistence, both negative and positive occurs in the short term on a similar scale (Aspadarec, Majewski, 2016).

3. Research methodology and description of the data

The study of the absolute return funds' performance persistence was carried out on a sample of 64 absolute return funds registered in Poland. The selection of funds for the study sample was carried out on the basis of the data collected by the Chamber of Fund and Asset Management (IZFiA being the Polish acronym). According to the "Classification of investment funds", the fund is an absolute return fund if it meets all of the following conditions:[2]

1. It has no regular benchmark that would make it possible to reproduce the securities portfolio or the benchmark portfolio defining the investment policy of the fund.

2. It has an investment policy which implements at least two out of the following assumptions:

- it uses investment techniques aimed at achieving positive returns regardless of the current market conditions in the class of assets in which the fund specializes, and in the case of investing in several classes of assets - regardless of the current economic situation in these classes,
- it systematically uses leverage by borrowing or taking out loans with a significant share in the fund's assets, by the use of derivative instruments or other investment techniques, whereby as a result of the leverage employed the total exposure of the fund significantly exceeds the net asset value of the fund,
- it largely uses the short sale of financial instruments or short positions in derivatives.

[2] It should be noted that the classification is based on declarations made by the investment fund companies in terms of their compliance with the implemented investment policy and composition of the portfolio. The decisive criterion for being included in a particular category of funds is compliance of the actual investment policy with the policy defined for the particular category in this classification. When the provisions of the statute of the fund are wider than the actual investment policies which are implemented and the portfolio composition, as recommended by IZFiA, one should take into consideration the actual investment policy.

3. The fund charges a variable management fee dependent on the fund's performance.

According to the IZFiA report on the state of the investment fund market in Poland at the end of 2015, there were 68 absolute return funds from the domestic and foreign markets with total net assets amounting to 12 billion PLN. The absolute return funds that are analyzed in the present article are valued in PLN, publish their valuation and have not announced liquidation. The study did not take into account absolute return funds from foreign markets, because the difference in the valuation of the funds when compared to absolute return funds on the Polish market consisted only in the fact that the fund shares were valued in foreign currencies, which fund managers did not hedge. Only four entities met the above criteria at the end of the period under analysis. Due to the different frequencies of the fund shares valuation of the analyzed funds, both the monthly and quarterly returns were used in the study. The study is based on the analysis of the annual rates of return for the past three years, accounting for every month, which gives a maximum total of 24 annual periods for the funds publishing their returns at least once a month. For the data from the end of December 2015 these include 24 yearly periods starting from the end of January 2013 till the end of December 2015, and being calculated month by month. In order to test the hypotheses that the performance of the absolute return funds tends to persist and that profit is made regardless of the market situation, the funds are grouped according to the decreasing percentage of the positive 12-month periods in the examined time horizon. In cases when the same percentage was shared by different funds, the position was determined by the higher nominal number of positive periods in the period selected for analysis and then, if need be, the rate of return for the period of three years was taken into consideration. With regard to the absolute return funds, operating for less than the three-year period adopted for analysis, the maximum number of periods was taken into account, and all the other criteria were applied. With regard to funds which were included in the study and which publish results less frequently than once a month, the same procedure was applied with the annual rates of return for every quarter. With regard to these funds, the number of rolling 12-month periods of returns for the three years which were analyzed included up to 8 annual periods. In the case of funds operating for less than the maximum analyzed time horizon, the available number of periods was taken into account, and all the other criteria remained unchanged. In addition, the study compared the investment returns of the analyzed funds measured by the rate of return against the risk-free rate of return. It is assumed in standard research and market practice that the risk-free rate of return equals the yield on 52-week Treasury bills, but due to the fact that in Poland, during the analyzed period, T-bills were not sold to investors by the issuer, that is the Treasury, the study used the rate of returns on deposits measured with the WIBID 1R. All in all, the study analyzed 64 absolute return funds, which accounted for 84% of the absolute return funds market and 4.8% of the investment fund market in Poland. The average time of operation of the funds that were analyzed is 5,6 years.

4. Results and analysis

The design of portfolios in this type of funds and the lack of an official benchmark make their results difficult to compare and evaluate. The absolute return funds in order to effectively implement their strategies demonstrate high flexibility in the context of the investment policy. It is generally less important whether the fund earns the highest returns in the long term, because such funds by default are designed to generate profits regardless of the conditions on the financial market in a given time horizon. Investors typically expect that the time period will be at least 12 months. In order to select the actual absolute return funds one needs to determine whether the selected fund actually generates profits regardless of the prevailing market situation and whether it is able to maintain a positive position over time. The answer to the question of performance persistence of the analyzed funds is provided in Table 1 which shows the number of positive returns earned by a given fund in the established equal periods of time.

Table 1. Performance persistence; rates of returns of absolute return funds valued once a month for the period of 36 months in 2012-2015

Name of the fund	Number of possible consecutive 12-month rates of returns over the 3-year period	Number of positive 12-month rates of return	Share of positive 12-month rates of return in %	3-year rate of return in %	Is the rate of return higher than the risk-free rate?
In Return FIZ	24	24	100	31,2	+
ALTUS Absolutnej Stopy Zwrotu Dłużny	24	24	100	13,4	+
ALTUS Absolutnej Stopy Zwrotu FIZ Rynku Polskiego 2	24	23	96	29,8	+
ALTUS Absolutnej Stopy Zwrotu Rynku Polskiego FIZ	24	23	96	27,1	+
ALTUS Absolutnej Stopy Zwrotu Rynków Zagranicznych	24	23	96	26,6	+
PZU FIZ Forte	24	22	92	20,7	+
ALTUS Absolutnej Stopy Zwrotu FIZ Obligacji 1	24	22	92	10,1	+
ALTUS Absolutnej Stopy Zwrotu Rynku Polskiego	24	20	83	12,1	+
BPH Selektywny	24	19	79	11,9	+
BPH FIO Strategii Akcyjnej	24	19	79	6,4	+
QUERCUS Selektywny	24	18	75	8,9	+
Millennium Absolute Return	24	18	75	8,3	+
Skarbiec Market Neutral	24	16	67	8,4	+
BPH FIZ Multi Inwetycja	24	16	67	6,7	+
ALTUS FIZ GlobAl 2	24	15	63	5,4	–
Noble Fund Global Return	24	15	63	6,2	+
Ipopema Opportunity FIZ	24	15	63	–2,7	–
Ipopema Global Macro FIZ	24	14	58	6,5	+
Investor Absolute Return FIZ	24	13	54	1,9	–
Noble Fund Opportunity FIZ	24	12	50	19,7	+
Ipopema Makro Alokacji	24	12	50	3,9	–
Provide Able 2 Trend FIZ	24	11	46	-0,7	–
Opera Alfa-plus.pl	24	10	42	6,7	+
PZU FIZ Dynamiczny	24	9	38	–1,7	–
Opera Za 3 Grosze FIZ	24	7	29	–31,8	–
AGIO Globalny	24	5	21	–1,7	–
Noble Fund Macro Total Return FIZ	24	3	13	–37,3	–
Investor FIZ	24	2	8	–3,2	–

From the data presented in Table 1, it can be concluded that some absolute return funds on the Polish market demonstrate sustained positive returns (show positive performance persistence) and others consistently achieve a negative rate of return (exhibit negative performance persistence). In the first group, there are two funds - In Return FIZ and ALTUS Absolutnej Stopy Zwrotu Dłużny, that earned positive returns in all of the periods selected for analysis in the maximum time horizon analyzed in the study. Other funds belonging to the group with repeated positive returns include: ALTUS Absolutnej Stopy Zwrotu FIZ Rynku Polskiego 2, ALTUS Absolutnej Stopy Zwrotu Rynku Polskiego FIZ, ALTUS Absolutnej Stopy Zwrotu Rynków Zagranicznych, PZU FIZ Forte, ALTUS Absolutnej Stopy Zwrotu FIZ Obligacji 1 and ALTUS Absolutnej Stopy Zwrotu Rynku Polskiego. The second group of funds that repeatedly did not earn positive returns in the 12-month time horizon includes mainly the following funds: Investor FIZ, Noble Fund Macro Total Return FIZ, AGIO Globalny and Opera Za 3 Grosze FIZ.

Table 2. Performance persistence; rates of returns of absolute return funds valued once a month and operating for less than 36 months

Name of the fund	Number of possible consecutive 12-month rates of returns over the 3-year period	Number of positive 12-month rates of return	Share of positive 12-month rates of return in %	Rate of return from the beginning in %	Is the rate of return higher than the risk-free rate?
Trigon Quantum Neutral FIZ	16	16	100	24,2	+
ALTUS Absolutnej Stopy Zwrotu Nowej Europy	13	13	100	10,1	+
ALTUS Optymalnego Wzrostu	13	13	100	11,9	+
Trigon Polskie Perły FIZ	12	12	100	24,0	+
Raiffeisen Aktywnego Inwestowania	10	10	100	19,6	+
Opoka Neutral	7	7	100	13,1	+
Macromoney FIZ AN	5	5	100	12,4	+
Opoka Alfa	5	5	100	9,6	+
Macro FIZ	5	5	100	7,9	+
Global Bond FIZ	5	5	100	4,4	+
UniAbsolute Return Dłużny FIZ	4	4	100	3,9	+
Skarbiec MultiAsset FIZ	2	2	100	5,5	+
QUERCUS Stabilny	19	18	95	15,7	+
NN (L) Stabilny Globalnej Alokacji	14	11	78	15,1	+
Superfund Alternatywny	17	11	65	2,1	–
Skarbiec Market Opportunities	15	9	60	5,2	+
ALTUS Absolutnej Stopy Zwrotu FIZ GlobAl	15	9	60	6,6	+
Metrum FIZ	11	5	45	–5,1	–
Raiffeisen Globalnych Możliwości	10	3	30	3,9	+
Noble Fund Long Short FIZ	1	0	0	–3,3	–

Source: own study

Table 2 shows the absolute return funds that have been in operation for less than 3 years. As the ranking shows the four funds, two of which come from the offer by TFI ALTUS - ALTUS Absolutnej Stopy Zwrotu Nowej Europy and ALTUS Optymalnego Wzrostu and two from the offer by Trigon TFI - Trigon Quantum Neutral FIZ and Trigon Polskie Perły FIZ, did not report losses in the annual time horizon. The leader in this ranking - Trigon Quantum Neutral FIZ finished each of the last 16 annual periods with a positive rate of return. Since its inception, the fund has achieved a profit of more than 24%. Raiffeisen Globalnych Możliwości and Metrum FIZ were the major funds which showed the performance persistence of negative returns in annual periods among funds operating less than 36 months.

Table 3. Performance persistence; rates of returns of absolute return funds valued once a quarter for the period of 36 months in 2012–2015

Name of the fund	Number of possible consecutive 12-month rates of returns over the 3-year period	Number of positive 12-month rates of return	Share of positive 12-month rates of return in %	3-year rate of return in %	Is the rate of return higher than the risk-free rate?
CORUM Opportunity Absolute Return FIZ	8	8	100	61	+
Trigon Quantum Absolute Return FIZ	8	8	100	38,2	+
Opoka One FIZ	8	8	100	24,1	+
Acer Aggressive FIZ	8	6	75	75,5	+
CORUM Absolute Return FIZ	8	6	75	36,8	+
QUERCUS Absolute Return FIZ	8	6	75	24,9	+
QUERCUS Absolutnego Zwrotu FIZ	8	5	62,5	14,7	+
Open Finance Absolute Return FIZ	8	4	50	4,8	–
Opera FIZ	8	3	37,5	–7,7	–
Andromeda FIZ seria B	8	2	25	–3,2	–
Total FIZ	8	1	12,5	–21,6	–

Source: own study

As is shown in Tables 3 and 4, CORUM Opportunity Absolute Return FIZ, Trigon Quantum Absolute Return FIZ and Opoka One FIZ have exhibited the ability to persistently earn profits among the absolute return funds valued quarterly. These funds finished all of the eight annual periods selected for analysis with a positive return. Among these funds CORUM Opportunity Absolute Return FIZ seems the most interesting case as it reached the highest rate of return of + 61%.

Table 4. Performance persistence; rates of returns of absolute return funds valued once a month and operating for less than 36 months since their inception

Name of the fund	Number of possible consecutive 12-month rates of returns over the 3-year period	Number of positive 12-month rates of return	Share of positive 12-month rates of return in %	Rate of return from the beginning in %	Is the rate of return higher than the risk-free rate?
CP Private Equity	2	2	100	18,5	+
PKO Strategii Obligacyjnych FIZ	4	3	75	4,2	+
PKO Globalnej Strategii FIZ	6	4	67	7,3	+
Eques Total Return FIZ	5	3	60	–14,6	–
CP Absolute Return	2	1	50	9,3	+

Source: own study

In addition, it is worth noting that among all of the absolute return funds selected for the analysis, 79% of the funds achieved a positive return regardless of the length of their operating life. For a more accurate assessment of investment funds, the phenomenon of performance persistence in this article was analyzed not only in terms of the general repeatability of the rates of return but it was also investigated whether the returns earned by the absolute return funds were positioned above or below the risk-free rate, which amounted to 6.1% throughout the period under analysis. The results of the study revealed that 72% of the funds were able to maintain positive returns, which were at the same time above the risk-free rate throughout the entire analyzed period of time.

Table 5. The percentage of absolute return funds showing performance persistence of rates of return in Poland in 2012-2015

	Share of positive 12-month periods in the period selected for analysis in %	Share of funds with rate of return above the risk-free rate
Funds valued monthly	45	73
Funds valued quarterly	65	69

Source: own study

As is demonstrated by the results contained in Table 5, it was concluded that the absolute return funds valued on a quarterly basis maintain a positive rate of return to a greater extent than the funds valued monthly, +ing into account the 12-month period, and that, regardless of the frequency of valuation about 70% of the funds earned returns above the risk-free rate.

5. Conclusions

The phenomenon of performance persistence analyzed in this paper determines the ability to predict the funds' rates of return, which in particular affects the decisions made on the investment market by investors and fund managers who want to achieve above-average returns on investment. The performance persistence of the funds which was investigated in this study similar to other financial instruments is subject to evaluations and comparisons. When evaluating the results of absolute return funds, it should be noted that their goal is not to achieve the highest rates of return, but their aim is most of all to generate profit in a sustainable way regularly within the specified period. Such a strategy requires a conservative approach to the market, and as a result some returns earned by the funds do not belong to those achieved by the group of funds with the highest rates of return. The analysis of the absolute return funds operating in Poland led to the conclusion that, in fact, the strategy of absolute return, i.e. generating profit in all market conditions is applied only by part of the funds' management. The remaining available absolute return funds are funds in which managers seek to maximize profits and therefore, they pay too little attention to the systematic persistence of positive returns above the risk-free rate, and at the same time to reducing risk. It should be noted that only 48% of the absolute return funds worked to achieve its objectives, and 72% of the funds earned rates of return higher than the risk-free rate of return. Referring to the findings available in the literature, it can be stated that, in Poland like in other developed markets, the performance persistence of funds' returns does not occur in the annual period, which leads to the recognition of the similarity between the Polish market and Western markets.

References

Agarwal, V., Naik, N. (2000). Multi-period performance persistence analysis of hedge funds. *Journal of Financial and Quantitative Analysis*, *35* (3).

Aspadarec, W. (2013). *Wielowymiarowe aspekty rozwoju rynku funduszy hedge*. Szczecin: Wydawnictwo Naukowe Uniwersytetu Szczecińskiego.

Aspadarec, W., Majewski, S. (2016). Persystencja stóp zwrotu quasi-funduszy hedge na polskim rynku kapitałowym, *Annales Universitatis Mariae Curie-Skłodowska, sectio H – Oeconomia*, *50* (4).

Bogle, J. (1992). Selecting Equity Mutual Fund.*,Journal of Portfolio Management*, *18* (2).

Brown, S., Goetzmann, W. (1995). Performance Persistence. *The Journal of Finance*, *50* (2).

Budiono, D., Martens, M. (2010). Mutual fund selection based on funds characteristics. *Journal of Financial Research*, *33* (3).

Carhart, M. (1997). On persistence in mutual fund performance. *The Journal of Finance*, *52* (1).

Carlson, R. (1970). Aggregate Performance of Mutual Funds 1948–1967. *Journal of Financial and Quantitative Analysis*, *5* (1).

Christopherson, J., Turner, A. (1991). Volatility and Predictability of Manager Alpha. *Journal of Portfolio Management*, *18* (1).

Czekaj, J., Grotowski, M. (2014). Krótkoterminowa persystencja wyników osiąganych przez fundusze akcyjne działające na polskim rynku kapitałowym. *Ekonomista*, *4*.

Davis, J. (2001). Mutual fund performance and manager style. *Financial Analysts Journal*, *57*.

Fama, E., French, K. (1992). The cross-section of expected stock returns. *Journal of Finance*, *49* (2).

Hendricks, D., Patel, J., Zeckhauser, R. (1993). Hot hands in mutual funds: short-run persistence of relative performance, 1974–1988. *Journal of Finance*, *48* (1).

Hirschleifer, J. (1995). Investment Decision Under Uncertainty: Choice-Theoretic Approaches. *The Quarterly Journal of Economics*, *79* (4).

Jackowicz, K., Filip, D. (2006). Powtarzalność wyników funduszy inwestycyjnych w Polsce. *Materiały i Studia NBP*, *236*.

Jensen, M. (1968). The performance of mutual funds in the period 1945–1964. *Journal of Finance*, *23* (2).

Koh, F., Koh, W., Teo, M. (2003). *Asian hedge funds: return persistence, style and fund characteristics*. Working Paper, Singapoure Management University, czerwiec.

Lehmann, B., Modest, D. (1987). Mutual fund performance evaluation: A Comparison of Benchmarks and Benchmark Comparisons. *Journal of Finance*, *42* (2).

Malkiel, B., Saha, A. (2005). Hedge funds: risk and return. *Financial Analysts Journal*, *61* (6).

Patena, W., Żołyniak, K. (2008). Efekt „dobrej passy" na rynku funduszy inwestycyjnych. *Kwartalnik „e-Finanse*", http://www.e-finanse.com/artykuly/99.pdf

Perez, K. (2012). Persystencja stóp zwrotu polskich funduszy inwestycyjnych. *Finanse*, *1*.

Phelps, S., Detzel, F. (1997). The Nonpersistence of Mutual Fund Performance. *Quarterly Journal of Business and Economics*, *36* (2).

Pruchnicka-Grabias, I. (2013). *Fundusze hedgingowe. Teoria i praktyka*. Warszawa: CeDeWu.

Sarnat, M. (1972). A Note on the Prediction of Portfolio Performance from Ex Post Data. *Journal of Finance*, *27* (4).

Schneeweis, T., Kazemi, H., Martin, G. (2002). Understanding hedge fund performance: research issues revisited – Part I. *Journal of Alternative Investments,* winter.

Sharpe, W. (1966). Mutual Fund Performance. *Journal of Business*, *39* (1).