

The Effect of Cash holding on the Performance (return) of Joint Investment Funds

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Abstract

Joint investment funds are specialized financial entities that invest by deposited cashes from investors in various portfolio of securities. Against, investment units assign their investments to them. The goal of the study is to identify the relationship between cash holding and the performance of joint investment funds. 23 joint investment funds were studied from 2010 to 2015. The hypotheses were analyzed using multiple regression models and sectional regression model. Testing first hypothesis of the research indicated that there is a significant and reverse relationship between cash maintenance and the performance of joint investment funds. It means that the amount of cash held in the fund is more; the performance of fund is lower. Also, the results of the research indicated that there is not a negative significant relationship between surplus cash and the performance of investment funds. According to the results, it is recommended lack of surplus cash maintenance by joint investment funds and appropriate usage of managers of these funds from following investment opportunities.

Keywords: joint investment funds, cash maintenance, performance, surplus cash.

1. Introduction

With respect to span and depth of the market, there are various tools to invest in any financial market. Investors invest with regard to efficiency and risk of assets (Yaghub Nezhad & Rahnamae Roudposhti, 2012). Investment is a driving force behind economic and social development. This approach which no school and no economic system make doubt. That is why that all countries has tried to investors allocate a part of their income on investment by attracting people and business units (Sayedi & Moghadasian, 2011). Investment in financial markets is regarded as one of the most important factors of economic development and growth in any country. The results of the research done by Heybati, Nikomaram and Rahnamae Roudposhti (2008) indicated that financial system is consisted of an integrated set of components that marks financial functions on the market. In capital market of any country, it should be tried investment in securities turns into a popular culture. Some financial tools with goal of collecting investors' cash and allocating them to purchase types of securities for reducing investment risk are the utilization of economics of scale, securement of investors' benefits, and joint investment funds. The existence of a direct positive and significant relationship of financial market on economic development and growth indicates that, the possibility of having developed economy seems unlikely without competitive and efficient organized financial markets. Therefore, building appropriate grounds for efficient, competitive and dynamic financial markets for equipping deposited resources, directing and allocating optimally them between various economic activities should be pillar in any economic system and related authorities. (Mashayekh et al. 2014). This topic should be a more important niche in developing countries because of limitation and dispersion of saving resources and investment. Through collected chases from small and big depositors, investing funds allow to they participate in big portfolio with trivial capital. (Association of joint investment companies, 2007). Since the goal of investment is to obtain profit or at least to protect the financial assets, evaluating the performance of investment companies is regarded as the most important issue among managers, investors, creditors and other beneficiaries and the its results is a basis for many decisions. Consequently, the portfolio performance of these companies are very important both for investors and for under – invested entities from different aspects. (Tari Verdi et al. 2014: 83-99).

One of the most important goals of economic business units is to gain profit in short term and to increase economic wealth of owners in long term. It is feasible by taking logical decision in investment process. There is a direct relationship between logical decision and performance appraisal of economic units (Rahnamae Roudposhti, 2008: 157-175). Investors are eager to know the results of your investment and compare its return with other investments or investment opportunities to make sure from their optimal decisions (Islami Bidgoli & Talangi, 2003: 50-71). That is why the evaluation of investment performance has special importance for this group of stakeholders. Totally, there are two investment methods: direct investment and indirect investment (Salehi, 2006). Among above two methods, indirect investment of investment funds and companies has been accepted by shareholders. (Sadeghi, 2014: 173-195). Among significant reasons of indirect investment by investment companies and funds, it can be mentioned to ability to manage and direct them in appropriate and diverse portfolios (Reilly & Keith, 2000: 340-348). Because of lack of access to comprehensive information, lack of knowledge and needed time for

evaluating conditions of investing units, investors delegate it to their managers through purchasing stock and certificates. Also, managers avoid purchasing single or multiple shares by investors and consequently provide an appropriate ground for safe investment (Raei & Pouyan Far, 2011). Of course, it should be noted that ultra-trusted managers estimate systematically more the possibility of good results and less the possibility of bad results from reality (Rahnamae Roudposhti et al, 2013: 75-90).

Achieving to long – term and continuous financial growth is required equipping and allocating optimally resources in fund level and it is unlikely without utilizing before-mentioned capabilities, especially in efficient and widespread investment sector. (Jahan Khani & Parsayian, 1997). However from one side, directing the resources of capital market toward the highest return is the problem that is required effective and efficient management. From other side, first of all, the goal of any investor (actual or legal) is to increase his or her wealth and or at least to protect them (Heybati, 2003).

The recent researches have indicated that the value of maintained cash by fund has impact on its performance, since there is a direct relationship between the amount of cash held in the Fund and opportunity cost and consequently it will impact on Fund's performance. Of course, there is another perspective that states there is a positive relationship between more cash and investment propensity in fund. Hence there is a positive relationship between fund's performance and amount of held cash by fund. (Talat & Rauf, 2009:199-214). With respect to before – mentioned issues and also the importance of cash for investing, the research tries to study the relationship between cash maintenance and also surplus cash with the performance of joint investment funds. Hence the research endeavors to answer the following questions:

1. Is there a significant relationship between cash maintenance level of investment funds and their performance?
2. Is there a significant relationship between surplus cash of investment funds and their performance?

In the following present research, research method will be provided and hypotheses will be developed. The findings of the research will be stated after determining needed models to test the hypotheses. Finally, conclusion will be provided.

2. Research Method

The research method is correlation type and based on regression models that it studies the relationship between independent and dependent variables. In the research, archive and library methods have been used to formulate theoretical principles and concepts. The data related to under – studied variables is collected from site of investment funds and official site of Tehran Stock Exchange (Fipiran).

The statistical population is all active investment funds in Iran. Considering that the establishment of such funds in the country does not pass for a long time and their numbers are very small, hence sampling was not conducted and all the statistical population were studied. Finally 23 joint investment funds were considered from 2011 to 2015.

Table 1 list of under – studied funds

Row	Name of fund	Row	Name of fund
1	Amin Sabbar	13	Sahm Ashna
2	Amin Kar Afarin	14	Industry and Mine
3	Isatis	15	Farabi
4	Agah	16	Kar Afarin
5	Novin Tosse Bank	17	Brokerage of Tejarat Bank
6	Bursiran	18	Brokerage of Iran Melli Bank
7	Pars	19	Brokerage of Iran Insurance
8	Pouya	20	Momtaz
9	Pishtaz	21	Novin
10	Hafez	22	Novin Saman
11	Khobregan	23	Ekon Iranian
12	Razavi		

2.1 Statistical Test of the Hypothesis

Regression patterns were used to study the influential variables on the performance (return) of investment funds. Applied patterns in the research are localized multivariable patterns developed by Fama and MacBeth (1973: 607-636) that one of its significant features is enjoying the highest specification among existing patterns. Based on various studies in this regard, the accuracy of the main variables used in the regression model has been confirmed. The pattern has been designed based on influential factors on the performance (return) of the fund in a certain time (Pour Zamani et al, 2011: 86-101).

2.1.1 Model of Testing First Hypothesis

$$R_{it} = \beta_0 + \beta_1 P/E_{it} + \beta_2 R_{t-1} + \beta_3 \text{LogAge}_{it} + \beta_4 \text{LogAssets}_{it} + \beta_5 B/M_{it} + \beta_6 \text{CashHolding}_{it} + \varepsilon_{it}$$

2.1 Model of Testing Second Hypothesis

$$R_{it} = \beta_0 + \beta_1 P/E_{it} + \beta_2 R_{t-1} + \beta_3 \text{LogAge}_{it} + \beta_4 \text{LogAssets}_{it} + \beta_5 B/M_{it} + \beta_6 \text{ExesCash}_{it} + \varepsilon_{it}$$

Where:

R: return of Fund i in year t

R_{t-1} : return of one previous period of Fund i in year t

LogAge: age log of Fund i in year t

LogAssets: total asset log of Fund i in year t

P/E: ratio price to earnings of any investment fund in year t

Cash Holding: cash holding level of Fund I in year t

Exces Cash: surplus cash of Fund in year t

ε : residual model

2.2 Research Variables

2.2.1 Independent Variables

According to main research question and conducted studies, one of the independent variable of the present research is surplus (excessive) cash that its effect is measured on dependent variables. Surplus cash is defined as residual of sectional regressions by following formula (Simutin, M., 2013)

$$C_{it} = \alpha_0 + \alpha_1 BM_{it} + \alpha_2 SIZE_{it} + \alpha_3 CPX_{it} + \alpha_4 WC_{it} + \alpha_5 LTD_{it} + \alpha_6 CF_{it} + v_{it}$$

C_{it} : logarithm cash ratio to total asset (except cash asset) in Fund i in year t

α_0 = intercept or constant in Fund i in year t

BM_{it} : ratio book value to market value in Fund i in year t

$SIZE_{it}$: log assets of Fund i in year t

CPX_{it} : ratio capital expenditure to assets of Fund i in year t

WC_{it} : ratio net working capital (without cash) to asset of Fund i in year t

LTD_{it} : ratio long – term debt to assets of Fund i in year t

CF_{it} : Cash flow ratio to total assets of Fund i in year t

v_{it} : excessive cash value in Fund i in year t

Another independent variable in the research is cash holding that cash balance at the end period is used to measure it. (Simutin, M., 2013)

2.2.2 Dependent Variable

Dependent variable of the research is the performance of investment funds which is measured using the return of these funds (Pour Zamani et al, 2011: 86-101).

$$R_{it} = \frac{NAV_{it} - NAV_{it-1}}{NAV_{it-1}}$$

R = return of Fund i at the end of period t

NAV_t = net value of assets of Fund i at the end of period t

NAV_{t-1} = net value of assets of Fund i at the end of period t-1

3.2.2 Control Variable

Earning to Price Ratio in Investing Fund (P/E):

the ratio is calculated using the division of price to earning in any joint investment funds

Book Value to Market Value Ratio:

This ratio is estimated dividing book value of any investment unit to its market value in joint investment funds (Pourzamani, Z., Safari, M. , 2010: 101-85).

Return in Previous Period (R_{t-1}): it is calculated using return in previous period (Pourzamani, Z., Safari, M. , 2010: 101-85).

Log Age: it is defined as the number of company's activities from inception to period t (Pourzamani, Z., Safari, M. , 2010: 101-85).

Log Assets: the variable is calculated using total asset logarithm (Pourzamani, Z., Safari, M. , 2010: 101-85).

Research Hypotheses and Questions

First Hypothesis: there is a significant relationship between cash holding level and the return of investment funds.

Second Hypothesis: there is a significant relationship between excessive cash and the return of investment funds.

3. Research Findings**4.2 Testing First Hypothesis**

Table 4: results of regression – first hypothesis

Regression Statistics					
Correlation Coefficient				0.555	
Determination Coefficient				0.307	
Adjusted Determination Coefficient				0.257	
Variance Analysis					
	P.value	F.value	Average of squares	Degree of Freedom	Sum of squares
Model	0.000	6.069	0.683	6	4.101
Error			0.113	82	9.235
total				88	13.336
Estimation of Parameters					
	P.value	T.value	Standard deviation	estimation	
Constant	0.000	4.050	0.577	2.335	
Cash Holding	0.008	-2.732	0.023	-0.062	
BM	0.000	-4.479	0.030	-0.133	
SIZE	0.003	-3.058	0.054	-0.165	
P/E	0.003	-3.058	0.054	-0.165	
R	0.144	-1.474	0.112	-0.165	
Log Age	0.271	1.107	0.257	0.285	

Accordingly above table, about 31 percent of dependent variable can be explained.

Based on amount of statistics possibility, it can be observed that the amount is zero and lower than 5%. Then being significance of regression model is approvable. As can be seen in table 4, the possibility related to cash holding variable is -0.062 and it indicates that there is a reverse relationship between cash holding and the performance of investment funds. Simply speaking increased cash holding causes decreased the performance of fund. Since error level is determined 5% for the research and possibility amount of cash holding variable in the model is 0.008, it can be concluded that the relationship between cash holding level and the performance of investment fund is statistically significant. Consequently, the null hypothesis is rejected and it can be said that there is not a significant relationship between cash holding and the performance of investment funds. We have with 95% confidence:

There is a significant relationship between cash holding level and the performance of investment funds.

Cash holding reduces the likelihood of financial crisis and it is regarded as a safe reserve to deal with unexpected losses, the pursuit of optimal investment at a time when the company is faced with financial constraints makes possible and finally it contributes to reduce collection costs of financial resources or cash existing assets. Tala't and Raouf (2009) have claimed that there is a positive effect between cash holding level and the return of fund. In fact, they believe that if cash holding amount is increased, investors' propensity increases to invest, because they assume themselves in a better and more flexible condition and with less liquidity risk to investment. The results of this study can be considered quite contrary to the results of their research. Through studying the return of investment companies, Islami Bidgoli et al (2006) found that there is not a significant relationship between size and liquidity rank of investment companies with their performance. By studying some environmental and managerial factors on the return of capital funds, Pour Zamani et al (2011) indicated that there is a positive significant relationship between return fluctuations of fund till pervious period, the return of fund in pervious, age of fund, flowing rate of assets till pervious period and gained return by fund. Also, their results indicated that there is a significant difference between under – controlled assets of fund in previous period, the costs of fund, new money growth rate compared to the previous period and the return of fund. Sayedi et al (2011) studies influential factors on investment funds' return and indicated that there is a linear significant relationship between 6 variables (market' return, growth rate of fund's value, the absolute value of the standard deviation of fund' return, issuance value of investment units, activity ratio of fund and cancellation value of investment units, respectively) and the return of investment fund.

3.4 Testing Second Hypothesis

Table 6 regression results – second hypothesis

Regression Statistics					
Correlation Coefficient			0.519		
Determination Coefficient			0.269		
Adjusted Determination Coefficient			0.216		
Variance Analysis					
	P.value	F.value	Average of squares	Degree of Freedom	Sum of squares
Model	0.000	5.032	0.598	6	3.589
Error			0.119	82	9.747
total				88	13.336
Estimation of Parameters					
	P.value	T.value	Standard deviation	estimation	
Constant	0.002	3.185	0.556	1.770	
Cash Holding	0.100	-1.663	0.020	-0.033	
BM	0.000	-4.275	0.031	-0.131	
SIZE	0.038	-2.110	0.052	-0.111	
P/E	0.242	0.242	0.00003	0.000008	
R	-1.250	-1.250	0.115	-0.144	
Log Age	0.792	0.792	0.269	0.213	

Accordingly above table, about 27 percent of dependent variable can be explained. Based on amount of statistical possibility, it can be observed that the amount is zero and lower than 5%. Then being significance of regression model is approvable. As can be seen in table 6, the possibility related to excessive cash variable is -0.033 and it indicates that there is a reverse relationship between excessive cash and the performance of investment funds. Simply speaking increased excessive cash causes decreased the performance of fund. Since error level is determined 5% for the research and possibility amount of excessive cash variable in the model is 0.100, it can be concluded that the relationship between excessive cash level and the performance of investment fund is not statistically significant. Consequently, the null hypothesis is not rejected.

There is not a significant relationship between excessive cash and the return of investment funds

Excessive cash is the cash that companies hold after the payment of dividend, interest cost and principle of debt in due date. In another words, this money is surplus money on common needs of company that can be used for appropriate investment opportunities and high flexibility (Simutin, M., 2013). Given that from the activity of these investment fund not pass for a long time in the country, it cannot be expected certainly to have the same and identical behavior such as developed countries, especially USA, then the obtained finding from the studies conducted in Iran are very different with the obtained finding from other countries.

4. Conclusion

The goal of the research is to study the relationship between cash holding and also excessive (surplus) cash of joint investment funds with the performance (return) of these funds in Iran. Research methods are correlation type and regression model that study the relationship between independent and dependent variables. Statistical population is all active investment funds in Iran. Due to the small number of such fund in the country, sampling was not done and all investment funds have been examined. Finally, 23 joint investment funds have been studied from 2010 to 2014. Multiple regression models and sectional regression method indicated that there is a reverse significant relationship between cash holding and the performance of joint investment funds. It means that if amount of held cash is more, the performance of fund is less. Tala't and Raouf (2009) claimed that there is a positive relationship between amount of held cash and the return of fund. In fact, they believed that if amount of held cash by fund is increased, investors' propensity is increased to invest. Sayeidi et al (2011) studied determinant factors in the return of investment funds and found that there is a significant relationship between market' return, growth rate of fund' value, absolute value of average deviation of fund' return, issuance value of investment units, activity ratio of fund, cancellation value of investment units with investment units. Also, the findings indicated that there is not a reverse significant relationship between surplus cash and the performance of joint investment funds. As can be seen above, the results of second hypothesis is not in agreement with the findings of Simotin's research (2013). He showed that there a positive relationship between surplus cash holding and future performance of joint investment fund. Given that from the activity of these investment fund not pass for a long time in the country, it cannot be expected certainly to have the same and identical behavior such as developed countries, especially USA, then the obtained

finding from the studies conducted in Iran are very different with the obtained finding from other countries. Some applied variables in Simutin model (such as operational cash flows) are not measurable in Iran, so the variable has been removed to calculate surplus cash in final designed model. This can lead to distort results and ultimately contradict the results of present study. The problem can be improved and generalized by providing data of joint investment funds in Iran during the following years.



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