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The Relationship between Specific Fluctuations, Liquidity Risk, and Stock Return in Listed Companies on Tehran Stock Exchange

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Abstract

The main purpose of this research is to investigate the relationship between specific fluctuations, liquidity risk, and stock returns in companies listed on Tehran Stock Exchange. This research reveals the importance of information such as special fluctuations and liquidity risk and their role in determining the additional return on portfolios of companies to assist the decision-making of actual and potential investors in the stock market.

For purpose of this research, quarterly financial information of 152 companies among companies listed on Tehran Stock Exchange during the period 2012-2016 was examined. After collecting the required research data, panel data was used to test the hypotheses. Also, Eviews Software has been used to test the hypotheses. The results showed that special fluctuations have a positive and significant impact on liquidity risk and stock return. Moreover, results showed that no reliable evidence is found to indicate the impact of liquidity risk on stock return at 95% significance level.

Keywords: Special Fluctuations, Liquidity Risk, Fama–French three-factor Model, Stock Return

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1. Introduction

Many studies have examined the relationship between risk and stock return. Generally, identifying important indicators for expected return on stocks is one of the important issues in modern financial sciences. Stockholders' wealth depends on two factors of risk and returns. It is not possible to exactly determine future returns, so, shareholders take risks when investing and attempting to predict stock returns for maximizing their profits. On the other hand, accurate prediction of returns can help managers achieve optimal financial resources. Therefore, identifying the factors affecting returns, in addition to being important in the eyes of shareholders, is also important in the eyes of managers. Various researchers such as Fama and French (1992), Sharpe (1964), Lintner (1965), and Carhart (1997), introduced several models for predicting the returns and the relationship between risk and returns. Currently, the focus of researches is on new multimodal models. In this study, Fama and French developed a three-factor model to calculate specific fluctuations. This model assumes that there is a linear relationship between specific fluctuations and expected return. This model is an indicator of specific fluctuations related to one asset relative to the risk of additional return of market portfolio, which is explained by two factors of size and ratio of book value to market value, and its impact on liquidity risk and return on equity will be examined.

Prediction is a key factor in economic decision-makings, and investors, creditors, management, and other individuals rely on predictions and expectations in economic decision-makings. One of the key issues affecting the investment process in stock exchange is the recognition of the mechanism for generating returns, and the other is the examination of the return and the associated risk. Hence, these factors play a key role in decision-makings for risk and return in investment, and determination and anticipation of their value is of special importance to investors (Khatami, 2016: 5). The most important goal of investors is to achieve an optimal return, meaning that, individuals' financial resources to be invested in the most appropriate and most productive sectors of the market. Considering this issue as well as interest and need of investors to achieve appropriate criteria for evaluation of high efficiency stocks and to invest in companies that have a better financial future, using models for predicting the behavior of return on equity is essential for investors (Abolqasemi, 2010: 2). Investors are interested in obtaining more profit and reducing the risk of their investments. For this reason, they create portfolios to reduce risk by diversifying their investments or to obtain the highest returns for a given level of risk. By forming a portfolio, special fluctuations are eliminated. Special fluctuations are the risk that the investor does not expect to receive any rewards in return. Therefore, it is eliminated by diversifying the investment portfolio and creating portfolios. Choosing optimal portfolio requires an estimation of two factors of risk and returns on securities. Over many years, various models have been developed to assess the risk and returns on portfolios. These models have been evaluated in various forms and the results of tests indicate that the factors proposed in these models alone cannot explain the relationship between risk and portfolio returns. For this reason, the idea of combining these factors emerged. The most complete model ever presented in this regard is Fama and French three-factor model (Mojtahedzadeh and Taremi, 2006: 110). One of the important tools for predicting return on investment in securities is the use of capital asset pricing models.

Capital Asset Pricing Model (CAPM), developed by Sharpe (1964) and Lintner (1965), states that portfolio risk includes systematic risk and special fluctuations (non-systematic risk). However, the only factor affecting returns is asset allocation. However, many empirical studies in recent years have shown that equity risk depends on factors

other than systematic risk. The impact of firm size was firstly examined by Banz (1981). His results showed that there is a negative relationship between firm size and returns. Similarly, Barry and Brown (1984) showed that smaller companies, compared with larger companies, are more tended to have high returns. Lack of information in small companies is a reason for the demand for high return for investors.

One of the factors that affect stock return is special fluctuations. Despite this fact, investors can reduce special fluctuations through diversification of investment, that in fact, keeping completely diverse securities is very difficult for stockholders. Therefore, when faced with an increase in non-systematic risk, the incentive of investors to maintain stocks increases, and as a result the risk expands that leads to the growth of the cost of transactions. Therefore, return will be affected by systematic risk and special fluctuations (non-systematic risk). Fama and French (1993) used the ratio of market value to book value in a market risk model to develop a three-factor model and considered the remainder of model estimation as special fluctuations. Carhart (1997) also created a quadratic model based on an acceleration strategy (momentum). Findings of many researchers such as Xu and Malkiel (2003), Santa-Clara (2003), and Fu (2009) showed that there is a significant relationship between specific risk and returns. However, researchers did not find a significant relationship between special fluctuations and stock returns. In addition to special fluctuations, many researchers found that liquidity should be used for explaining assets price. Given that there is no fixed index for calculating liquidity and other methods have been used to measure the volume of transactions, transaction turnover, and bid price gap, as alternative variables for liquidity. In the event of intense information asymmetry in the market, bid price gap increases. The higher the bid price gap, the higher is cost of transactions, thus, stock liquidity is reduced. Firms with weak liquidity are highly sensitive to liquidity risk. Patur and Stambaoq (2003) showed that even after controlling firm size and acceleration strategy, there is sensitivity of return to liquidity risk (Lina and Su, 2017: 43). Liu (2006) believes that CAPM model and three-factor model of Fama and French cannot explain the impacts of liquidity on stock returns; and although CAPM model and three-factor model of Fama and French have a significant effect on explaining stock return, there is a great deal of evidence suggesting that there is another factor called liquidity which is one of the factors affecting stock returns. Overall, all of these factors cause portfolio return surplus from the stocks of large companies to be different compared to stocks of small companies. As a result, it is logically expected that there will be a significant relationship between market return surplus, the ratio of book value to market value, firm size, and surplus return on portfolio.

Investigating the determinant factors of changes in stock returns in Tehran Stock Exchange can improve investors' decision-making process and the optimal allocation of resources. In fact, by identifying the factors determining portfolio stock returns, the investors' mindset about the factors affecting changes in stock returns will be improved. Various models have been presented to determine the factors affecting return on stocks, so that using these models, investors can, by making appropriate investment decisions, obtain the highest returns. Since in the long run and by introducing new information, the efficiency of many of these models decreases, it is therefore necessary to undertake new research to consider the impact of new factors such as lack of stock liquidity. In general, the following points indicate the importance of the present research:

1. This research reveals the importance of information such as special fluctuations and liquidity risk and its role in determining the company's portfolio returns surplus in stock market to help decision-making by actual and potential investors in Tehran Stock Exchange market.

2. It helps investors' decision-making and investment decisions.

So, in the present study the relationship between special fluctuations and liquidity risk and stock returns is examined.

2. literature review and hypothesis development

Determining the company's value of stocks in the market is one of the important and determining issues for investment process. Obtaining maximum return in capital market is always the most important factor for investors and market practitioners. On the other hand, one of the goals of accounting is to provide information for investors and other users to make appropriate investment decisions. One of the tools used in investment decisions is proper prediction of portfolio stock returns. If accounting information is useful for explaining portfolio stock returns, then changes in accounting data should lead to change in portfolio stock returns of companies.

Results of the study by Eslami Bidgoli and Honardoost (2012) indicate that there is a significant relationship between the impact of market return surplus, firm size, and the ration of book value to market value on stock return surplus; and also there is no significant relationship between market liquidity and stock return surplus. Market beta is only a function of size variable. Also, the results show that market liquidity factor by Pasteur and Stamba and the use of changing market beta increase the power of explaining Fama and French three-factor model. Results of the study by Qalibaf Asl and Karimi (2012) indicate that changes in stock returns in Tehran Stock Exchange is explained by the four factors of market return surplus, firm size, BE/ME ratio, and stock transactions turnover at a relatively acceptable level (an average of 40%). Moreover, a significant correlation was observed between market return surplus, firm size, and stock returns. No significant relationship was observed between BE/ME ratio, stock transactions turnover, and stock returns. In other words, only the factors of market risk and firm size are priced by the market.

Results of the study by Pour Zamani and Bashiri (2013) showed that stock growth has a higher return. Further, to increase the research reliability, the obtained return was compared to actual data through Carhart model which showed that the returns obtained from this model do not have any significant difference with actual information. Findings of the research by Izadinya et al. (2014) show that the use of multi-factor models is more appropriate than one-factor model for capital asset pricing. Moreover, the research results indicate that Carhart quadratic model does not have any advantage over Fama and French's three-factor model, because among the four variables of using market risk, size factor, value factor, and the factor of tendency toward past performance (momentum) only two variables of risk and size affect the stock returns.

Salehi et al. (2014) stated that no empirical research is condecuted on the ability of this model in explaining stock returns so far, and its evaluation depends on future studies. Result of the study by Babalooyan and Mozaffari (2016) show that the ability to explain stock returns by Fama and French five-factor model is more than that of the Carhart and HXZ models. Unlike findings of Fama and French in US stock exchanges, the value factor (HML) in Tehran Stock Exchange is meaningful and is not known as a surplus factor. The research results indicate that among the factors of beta, size, value, tendency to past performance (momentum), profitability and investment, the factors of momentum and investment in Tehran Stock Exchange do not affect stock returns.

Results of the study by Lischewski and Voronkova (2012) showed that market, size, and value affect returns. Their findings also show that liquidity is a factor affecting price. Results of the study by Hou et al. (2014) confirm that based on logical and analytical reasons, HXZ model predicts the expected returns of stocks better than Fama and French five-factor model. Fama and French (2015) compared their five-factor and three-factor models in a study. They showed that the five factors of market, size, ratio of

book value to market value, operational profit, and investment, compared to three factors of market, size, and ratio of book value to market value have a high explanatory power regarding stock returns. In general, their findings confirm that the capability of five-factor Fama and French model is more than the capability of three-factor Fama and French model.

Results of the study by Lina and Sue (2017) showed that companies with high special fluctuations have high returns and there is a positive relationship between specific fluctuations and liquidity risk. Their findings also showed that there is a negative relationship between stock size and stock returns. Results of the study by Spierts (2018) showed that there is no significant unconditional relationship between beta and efficiency. However, the distinction between growing and declining markets has led to a significant conditional relationship. This research, by examining and comparing a large sample of emerging and developed markets, adds information to the existing literature and the results of this research confirm the results based on Pettengill's method with betas changing over time.

Previous studies showed that companies with high special fluctuations have high returns and there is a positive relationship between specific fluctuations and liquidity risk. According to the research literature and theoretical literature related to this study, the following hypotheses have been developed and tested:

1. Special fluctuations affect liquidity risk in companies listed on Tehran Stock Exchange.
2. Liquidity risk affects stock returns in companies listed on Tehran Stock Exchange.
3. Special fluctuations affect stock returns in companies listed on Tehran Stock Exchange.

3. methodology

The present study is practical, in terms of research; also, as the research examines the relationship between several variables, it is a descriptive-correlational type, in terms of nature and method. After collecting the required data, Office 2016 Software was used for calculating and preparing the variables and hybrid data was used to test the hypotheses. In order to determine the type of hybrid data, F-Limer and Hausman tests were used. Besides, to test the total significance of the fitted regression model, Fisher statistic (F) was used at 95% confidence level, and t Student test was used to test significance of each of the independent variables. In addition, Durbin-Watson test was used to test lack of correlation between model errors. Eviews 10 Software was also used to analyze the above tests, the correlation between variables, multivariate linear regression, and other tests.

3.1. models and variables

The following model is used to analyze the first hypothesis:

Model (1):

$$\mathrm{Ln}(DVOL_{it}) = \alpha + \beta_1 \mathrm{IV_{i,t}} + \beta_2 \mathrm{Ln}(SIZE_{i,t-1}) + \varepsilon_{i,t}$$

The following model is used in order to analyze the second and third hypotheses:

Model (2):

$$\mathrm{R_{i,t}} = \alpha + \beta_1 \mathrm{Ln}(DVOL_{it}) + \beta_2 \mathrm{IV_{i,t}} + \beta_3 \mathrm{Ln}(SIZE_{i,t-1}) + \varepsilon_{i,t}$$

In which:

$\mathrm{Ln}(DVOL_{it})$ = liquidity risk (transactions volume logarithm) of company i in period t; $\mathrm{IV_{i,t}}$ = special fluctuations (unsystematic risk) of company i in period t; $\mathrm{R_{i,t}}$ = stock return of company i in period t; $SIZE_{i,t-1}$ = size of company i in period t-1; and $\varepsilon_{i,t}$ = residual of the model of company i in period t.

3.1.1. Independent variables

1. Special fluctuations (non-systematic risk): According to Lina and Sue (2017), to calculate this variable, Fama and French developed a three-factor model as follows:

Model (3)

$$R_{i,dt} - R_{f,dt} = \alpha + \beta_{i,t}^{MKT}\left(R_{m,dt} - R_{f,dt}\right) + \beta_{i,t}^{SMB} SMB + \beta_{i,t}^{HML} HML + \varepsilon_{i,t}$$

where

$R_{i,dt}$ = stock return of company i in month t and d of the number of days in the month; $R_{f,dt}$ = risk-free return of company i in period t; $R_{m,dt}$ = market return of company i in period t; HML and SMB: the factor for classification of shares of companies based on two factors of size and ratio of book value to market value; $SMB_{i,t}$ = the difference between the average returns of two portfolios with small and large (size) market value in period t.

Equation (1)

$$SMB_{i,t} = \frac{\left(\frac{S}{L} + \frac{S}{M} + \frac{S}{H}\right)}{3} - \frac{\left(\frac{B}{L} + \frac{B}{M} + \frac{B}{H}\right)}{3}$$

This factor is a tool for illustrating a part of the return variance which is related to the impact of company size (Kimiagari et al., 2007: 70).

$HML_{i,t}$ = the difference between average returns of two portfolios and the ratio of book value to high and low market values in period t.

Equation (2)

$$HML_{i,t} = \frac{\left(\frac{S}{H} + \frac{B}{H}\right)}{2} - \frac{\left(\frac{S}{L} + \frac{B}{L}\right)}{2}$$

where

$\frac{S}{L}$ = small size companies with low book value ratio; $\frac{S}{M}$ = small size companies with medium book value ratio; $\frac{S}{H}$ = small size companies with high book value ratio; $\frac{B}{L}$ = large size companies with low book value ratio; $\frac{B}{M}$ = large size companies with medium book value ratio; and $\frac{B}{H}$ = large size companies with high book value ratio.

After classifying the stocks of companies based on two factors of size and ratio of book value to market value, we will classify the stocks into six portfolios, which are a combination of two groups of size and the ratio of book value to stock market value. Note that the number of companies in each group will be different (portfolio return is obtained from the difference between return of each portfolio and market return).

Finally, special fluctuations (non-systematic risk) are obtained from residual standard deviation of the model (1) as the equation (3).

Equation (3)

$$IV_{i,t} = \sqrt{VAR(\varepsilon_{i,t})}$$

2. Liquidity risk: According to Lina and Sue (2017), trading volume logarithm is used to calculate liquidity; companies with lower transaction volumes, have a high liquidity risk.

3.1.2. Dependent variable:

1. Liquidity risk: the measurement method has been stated in the previous section.

2. Stock returns:

In order to measure return on investment, the income on investment is divided into the initial investment amount. Income on investment consists of two parts:

A. The amount received for dividends

B. The profit or loss resulting from the change in the price of securities during the

investment period

In other words, the result of the difference between input cash flow and output cash flow will determine the rate of return on investment. The return on investment in ordinary shares in a given period is obtained with respect to the price at the beginning and the end of the period and the benefits derived from ownership. Therefore, annual return of each sheet of share is calculated through the following comprehensive equation:

Equation (4)

$$R_{i,t} = \frac{P_{i,t}(1 + \alpha_{i,t} + \beta_{i,t}) - (P_{i,t-1} + C\alpha_{i,t}) + D_{i,t}}{P_{i,t-1} + C\alpha_{i,t}}$$

where

$R_{i,t}$ = stock return of company i in period t; $P_{i,t}$ = stock price of company i in period t; $P_{i,t-1}$ = stock price of company i in period t-1; $\alpha_{t,i}$ = percentage of capital increase from the credits and cash investment of company I in period t; $\beta_{i,t}$ = percentage of capital increase from savings of the company i in period t; $C_{i,t}$ = price of subscription of a new share of company i in period t; and $D_{i,t}$ = dividend profit during the period for company I in period t (Yahyazadehfar et al., 2010: 119).

3.1.3. Control variable:

-Firm size: natural logarithm of total assets.

3.2. Sample

All companies listed on Tehran Stock Exchange constitute the statistical population of the present study, which should have the following criteria: 1. The companies must have been present in the stock exchange from 2012 to 2016; 2. The companies should not be affiliated with banks and financial intermediation companies, leasing and other investment companies; 3. Their data should not be incomplete. The duration of this study is from the beginning of 2012 to the end of 2016. Given the above limitations, 152 companies were selected as the sample of study. It should be noted that the data has been extracted on a three months basis.

4. findings

As can be seen in Table (1), descriptive statistics include mean, median, minimum, maximum, standard deviation, skewness, and kurtosis which are well-known and, at the same time, the mostly used descriptive statistics indices. The mean shows average of the data. Skewness and kurtosis are the indices of data symmetry and are indicative of their position relative to normal distribution. In the Table, for descriptive statistics in this study, the mean, minimum, maximum, and standard deviation have been calculated as follows:

Table 1: Descriptive statistics of model variables

Variables	Mean	Maximum	Minimum	Standard deviation
Firm size (SIZE)	14.187	19.26	10.36	1.5413
Liquidity risk (DVOL)	15.942	23.28	2.4	2.60165
Market return (RM)	0.0613	0.38	-0.11	0.15309
Company return (RI)	0.0816	0.87	-0.55	0.25407
Risk-free return (RF)	0.0476	0.05	0.05	0.00174
Company return minus Risk-free return (RI-RF)	0.0343	0.83	-0.59	0.25435
Market return minus risk-free return (RM-RF)	0.0142	0.34	-0.16	0.1539
Size factor (SMB)	-0.013	0.07	-0.11	0.04494
Market value factor (HML)	-0.013	0.07	-0.11	0.04494
Special fluctuations (IV)	0.1696	0.95	0	0.22967

The main central index is mean which represents the equilibrium point and center of gravity of distribution and is a good indicator of the data centrality. For example, the mean value for firm size is equal to 14.1871 which indicates that most data are centered around this point. The parameters of dispersion are criteria for determining dispersion from each other or relative to the mean. Among the most important parameters of dispersion is standard deviation. Among the variables, risk-free return has the lowest and liquidity risk variable has the highest rate of dispersion.

Since the data used in this research are panel (year-company) and panel data are in two panel and composite forms, in order to select between panel and composite data methods in evaluation of the model, F-Limer test has been used. Moreover, to select between random effects or fixed effects model, Hausman test has been used. A summary of the results of F-Limer test and Hausman test is presented in Table (2) and (3).

Table 2: F Limer test results

Model	F Limer test		
	Value of statistics	Probability	Result
1	24.0231	0.0000	Panel
2	1.4318	0.0006	Panel

As seen in Table (2), probability of statistics of models 1 and 2 of the research is less than 0.05. Therefore, panel data method has been accepted.

As explained, Hausman's test is used to choose between random effects model and fixed effects model. The results of Hausman test for the research models are as described in Table (3):

Table 3: Hausman test results for selecting between fixed effects model and random effects model

Model	X^2 statistics	Probability	Test result
1	13.4004	0.0012	H_0 is rejected (Fixed effect method is appropriate)
2	160.0675	0.00000	H_0 is rejected (Fixed effect method is appropriate)

The results of Table (3) show that fixed effects method should be used in these models.

In order to examine variance equation in this study, since research models have been estimated using panel data through fixed effects method, Breusch Pagan Godfrey test has been used. Also, in order to test auto-correlation between residuals, Durbin-Watson test has been used. If the probability of a statistic is between 1.5 and 2.5, there is no auto-correlation between the residuals. In case of existence of auto-correlation, it is removed through AR component, and in case of absence of variance equation, Generalized Least Squares method (GLS) is used. Summary of the results of this test has been presented in Table (4).

Table 4: Homogeneity of variance and non-self-correlation test

Model	Homogeneity test of model variance		
	Value of statistics	Probability	Result
1	28.5860	0.0000	Heterogeneity of variance
	Durbin-Watson statistic= 2.1039		Lack of self-correlation of residual
2	1.4917	0.2147	Homogeneity of variance
	Durbin-Watson statistic= 2.0849		Lack of self-correlation of residual

According to table (4), probability of the obtained statistics for test of homogeneity of variance only for 1 research model is equal to 0.0000, which is less than error level of 0.05. Therefore, the null hypothesis (existence of variance homogeneity) is rejected

which shows that there is variance heterogeneity. In order to remove variance heterogeneity, Generalized Least Squares (GLS) method has been used. Regarding the absence of auto-correlation of residuals, given the Durbin-Watson statistic, it is confirmed in the period.

In this section, research hypotheses are tested. Given the nature of the data, research hypotheses were tested at the level of hybrid data. Before fitting the regression model and testing the research hypotheses, the classic assumptions of the model were tested and given the presumptions of the model being established, the research hypotheses were tested. In the regression model, according to the probability values, it was decided about rejection or non-rejection of Null hypothesis. According to table (5), F statistics has been used in this research in order to test the significance of the whole model, and t statistics has been used in order to test the significance of regression coefficients. Given the regression model related to the first and second research hypotheses, if the probability of t statistics for independent variables is less than error level of 0.05, the first and second hypotheses are confirmed.

Table 5: Results of data analysis in order to test the first research hypothesis

Variables	Coefficients	s.error	T statistics	Significance
Width from origin (C)	9.636922	1.00221	9.62	0.0000
Special fluctuations (IV)	0.922914	0.06636	13.9	0.0000
Firm size in the previous period (Size (-1))	0.448847	0.07033	6.38	0.0000
AR (1)	0.462599	0.01596	28.9	0.0000
Coefficient of determination	0.9070	Adjusted coefficient of determination		0.9014
F statistic	143.4692	Significance of F statistics		0.0000

Given the probability value obtained for F statistic that is less than 0.05, H_0 hypothesis is rejected, which indicates that all regression coefficients are not simultaneously zero. Therefore, at 95% confidence level, this model is significant. The coefficient of determination of the model is equal to 0.9070, which shows that 90.70% of changes of the dependent variable (liquidity risk) are described by the independent and control variable.

According to table (5), special fluctuations variable coefficient is equal to 0.9229, which is positive and the probability of t statistic for special fluctuations variable is 0.0000. This probability is less than 0.05 error level. So, the null hypothesis is rejected and there is a significant relationship between special fluctuations and liquidity risk. According to Table (5), the coefficient of the variable of firm size is 0.4488, which is positive and the probability of t statistic for the variable of firm size is equal to 0.0000. This probability is less than the error level of 0.05. So, the null hypothesis is rejected. Therefore, there is a significant relationship between firm size and liquidity risk. Therefore, since there is a significant relationship between specific fluctuations and liquidity risk, the first hypothesis of research is confirmed at 95% confidence level. Therefore, special fluctuations affect liquidity risk in companies listed in Tehran Stock Exchange.

Given the probability value obtained for F statistic that is less than 0.05, H_0 hypothesis is rejected, which indicates that all regression coefficients are not simultaneously zero. Therefore, at 95% confidence level, this model is significant. The coefficient of determination of the model is equal to 0.7214, which shows that 72.14% of changes of the dependent variable (liquidity risk) are described by the independent and control variable.

Table 6: Results of data analysis in order to test the second and third hypotheses

Variables	Coefficients	Standard error	T statistics	Significance
Width from origin (C)	1.328528	0.119014	11.16	0.0000
Liquidity risk (DVOL)	0.001782	0.001786	0.99	0.3185
Special fluctuations (IV)	0.924491	0.11886	77.7	0.0000
Firm size in the previous period (SIZE (-1))	-0.100894	0.008609	-11.7202	0.0000
Coefficient of determination	0.7214	Adjusted coefficient of determination		0.7057
F statistic	45.9647	Significance of F statistics		0.0000

According to table (6), liquidity risk variable coefficient is equal to 0.0017, which is positive and the probability of t statistic for liquidity risk variable is equal to 0.3185. This probability is greater than 0.05 error level. So, the null hypothesis is accepted. Thus, there is no significant relationship between liquidity risk and stock returns and the second hypothesis is rejected. According to Table (6), the coefficient of the variable of specific fluctuations is equal to 0.9244, which is positive and the probability of t statistic for the variable of specific fluctuations is equal to 0.0000. This probability is less than the error level of 0.05. So, the null hypothesis is rejected. Therefore, there is a significant relationship between specific fluctuations and stock returns; thus, the third hypothesis of research is confirmed at 95% confidence level. According to Table (6), the coefficient of firm size variable is equal to -0.1008, which is negative and the probability of t statistic for the variable of firm size is equal to 0.0000. This probability is less than the error level of 0.05. So, the null hypothesis is rejected. Therefore, there is a significant and negative relationship between firm size and stock returns.

5. Results

One of the problems of the stock exchange market is the sudden fall of the market, which leads to loss of wealth and pessimism of investors, that, by using the required predictions, the losses of this fall can be reduced as much as possible; meanwhile, identifying the factors affecting stock returns and prices is of great importance. Many studies, both local and international, have examined the behavior of stock returns so far. Many models have been introduced in this regard, each with its weaknesses and strengths. In this research, capability of liquidity risk and special fluctuations in explaining stock returns has been evaluated.

Research results showed that special fluctuations have a significant and positive effect on stock returns. Special fluctuations are also referred to as non-systematic risk or specific risks. This risk is a type of investment risk and exists in the company or industry in which you invest. Non-systematic risk can be reduced through diversification. Non-systematic risk is controllable, although special fluctuations (non-systematic risk) may also have negative consequences, but the findings of this study showed that this risk has a positive impact on return. The reason for this may be due to the capability to control this risk, which has led to selection of investments that have been growing, thus, stock return has also increased. The overall result obtained from this finding is consistent with the result by Lina and Sue (2017). In addition, results of the present study showed that special fluctuations affect liquidity risk. In this study, sales volume was used to measure liquidity risk, such that the more the volume of trading, the lower the liquidity risk would be, and the positive impact of special fluctuations on liquidity risk suggests an inverse relationship, meaning that special

fluctuations leads to an increase in trading volumes and a decrease in liquidity risk. This finding is also consistent with the result obtained by Lina and Sue (2017). In addition, in this study, the results showed that liquidity risk had no significant effect on stock returns, which is not consistent with the results of Lina and Sue (2017). In addition, the results showed that firm size in the previous period had a negative effect on stock returns, which is consistent with the result obtained by Lina and Sue (2017).

1. Results showed that special fluctuations have a positive effect on volume of transactions (liquidity risk), therefore, it is suggested to corporate managers to try to increase volume of transactions, to take risks, and to especially pay particular attention to special risk of the company.

2. Furthermore, the research results showed that special fluctuations increase stock returns; therefore, it is suggested to investors who are looking for high returns to choose firms that have special fluctuations (unsystematic risk) for investment.

Given the conclusions drawn in this study, practical recommendations can be presented to guide future research in the field of accounting as follows:

1. Examination of the impact of special fluctuations on other liquidity measures such as transactions turnover and,

2. Examination of the impact of special fluctuations on future stock returns;

3. Examination of the impact of special fluctuations on stock returns as monthly, quarterly, six-months, and yearly and comparing them with each other.

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