The Relationship between Stock Price Risk and Institutional Investment with Stock Returns with Emphasis on the Moderating Role of Liquidity Ratio in Companies Listed on the Tehran Stock Exchange

Habibollah Masoumi

Master of Accounting, North Tehran Branch, Islamic Azad University, Tehran, Iran.
habibmasoomi1356@gmail.com

Abstract
Stock returns are one of the most important issues in finance. Today, the process of examining the profitability and stock returns of companies is one of the most important issues for managers, investors, creditors and other stakeholders, and the results are the basis of many decisions inside and outside companies. The main purpose of this study is to investigate the relationship between stock price fall risk and institutional investment with stock returns with emphasis on the adjusting role of the liquidity ratio. The statistical sample of the research is 132 companies. The research method is descriptive-correlation with applied approach. The method of data collection in the theoretical foundations section is the library method and in the hypotheses testing section is the method of documenting financial statements. In general, the method of testing hypotheses is the method of correlation and multiple regression. The results showed that there is a significant inverse relationship between stock price risk and stock returns. There is a direct and significant relationship between institutional investment and stock returns. The company's liquidity also weakens the inverse relationship between stock price risk and stock returns and strengthens the direct relationship between institutional investment and stock returns.

Keywords: stock price fall risk, institutional investment, stock return, liquidity ratio

1. Introduction

An increase in the risk of a fall in the stock price can cause the capital market activists to lose confidence in buying the company's shares, and this will ultimately increase the supply of the company's shares for sale, reduce the stock price, and ultimately reduce the company's profitability. On the other hand, the company's liquidity can be effective on the relationship between the risk of falling stock prices and stock returns because companies that have high liquidity and are not limited in terms of financial resources can use growth opportunities and implement a favorable dividend policy by reducing financial leverage. They reduce the risk of falling stock prices and finally, by attracting investors, they increase the stock price and the company's efficiency (Vadiei Nougabi and Rostami, 2016).

Institutional ownership can also affect stock returns. Institutional investors with financial resources and expert managers who are aware of the capital market; They can increase the performance and efficiency of the company by monitoring the company's administration. Also, the company's liquidity can be effective on the relationship between institutional ownership

and stock returns because institutional owners use the company's liquidity in investments and growth opportunities; They can increase stock returns (Najafi Moghadam, 2016).

Stock returns are one of the most important topics in finance. Today, the process of examining the state of profitability and stock returns of companies is considered one of the most important issues of interest to managers, investors, creditors and other interested parties, and the results are the basis of many decisions inside and outside the companies. Therefore, the variables that affect the company's stock returns are very important, and in this research, the risk of falling stock prices and institutional ownership are considered as variables affecting the stock returns (Fathi et al., 2017).

Therefore, the main goal of this research is to answer the question, what effect does the company's liquidity have on the relationship between the risk of falling stock prices and institutional ownership with the company's stock returns?

Managers tend to hide company-specific bad news to prevent stock prices from falling, but they can hide it only temporarily. A sudden release of bad news can lead to negative stock returns or a fall in stock prices. Hiding bad news makes corporate financial reporting ambiguous. In this study, it is argued that to what extent the risk of falling stock prices can affect stock returns. On the other hand, one of the characteristics of efficient markets is the lack of transaction costs and thus high liquidity. As liquidity increases, transaction costs decrease dramatically. Liquidity also plays an important role in the process of price discovery (Hajiha and Ekhli, 2016).

Institutional investors include banks, insurance companies, pension funds, investment companies, and other institutions that buy and sell a large amount of securities and directly use the amount of voting rights in company assemblies. They are effective in the management decisions of investing companies. Institutional owners with influence on the board of directors can influence all the company's activities, including tax avoidance activities. The conflict between the interests of shareholders and management is one of the important topics that has been the focus of researchers in recent decades (Najafi Moghadam, 2016). According to research related to corporate governance; Institutional ownership is one of the ways to solve this problem. Among the basic problems on which the topic of ownership structure in the theory of corporate governance is formed, the conflict of interests between shareholders and management, the exercise of absolute control by the major shareholders, the reduction of the ability of the shareholders to control and supervise the affairs of the company, and the exclusive decision-making by the managers. When the decision-making is in the hands of the company's managers, in this case, the shareholders attend the annual general meetings only as a demonstration and in order to approve the managers' decisions (Lee, 2017).

The importance of the current research is that many companies are facing the risk of falling stock prices and this issue can have a negative impact on their performance and profitability in the future. On the other hand, institutional ownership is one of the mechanisms of corporate governance that was created with the aim of better managing the company and increasing monitoring of the behavior of company managers (Hosseini and Abdoli, 2018). Therefore, it is necessary to clarify the role of institutional ownership on the stock returns of companies, whether the existence of institutional ownership increases the performance of the company or not? Also, this research by introducing liquidity variable on the relationship between

independent and dependent variables; It seeks to clarify the issue that the liquidity of companies that do not have financial restrictions compared to other companies; Can it prevent the stock price from falling and lead to an increase in the yield of the company's stock or not?

2. Literature and research background

Khodadadi and Erfan Nia (1400) in a research study the impact of stock crash risk and institutional investors on stock returns in companies admitted to the stock exchange in the years 1390 to 1398. The results showed that there is a positive and significant relationship between the risk of falling stock prices and stock returns. There is a negative and significant relationship between institutional investors and stock returns. Novarbafi et al. (1400) have investigated the relationship between the risk of falling stock prices and institutional investment with stock returns. The results of the research showed that there is an inverse and significant relationship between the risk of falling stock prices and stock returns. Fazal Elahi Dehkordi and Ahmadi (1400) have studied the impact of the risk of falling stock prices on the product market competition of companies listed on the Tehran Stock Exchange. The results of the research showed that with the increase in the risk of falling stock prices, the competition of the product market decreases. The existence of such a relationship can be explained in the asymmetry of information and the lack of complete transparency in financial reporting, that the sudden release of negative information to the market and the increase in the risk of falling stock prices, makes financial analysts reconsider their predictions about the company's performance and the quality to evaluate the companies low and in this way the company loses its competitive advantage in the market. In a research, Akbari and Askarzadeh (1400) investigated the relationship between the risk of falling stock prices, institutional investors and stock returns. The results obtained from the hypothesis test showed that there is a positive and significant relationship between the risk of falling stock prices and stock returns. Also, there is a negative and significant relationship between institutional investors and stock returns. In a research, Jensen and Ricardo (2021) investigated the effect of company size on the relationship between institutional ownership and stock liquidity. The results show that there is an inverse (negative) relationship between the level of institutional ownership and stock liquidity in small companies, and there is a direct (positive) relationship between the level of institutional ownership and stock liquidity in large companies. In a research, Lee et al. (2020) investigated the relationship between debt structure and the risk of stock price fall, emphasizing the role of corporate governance and information asymmetry. They used the ratio of short-term debts as a measure of the company's debt structure and used the amount of changes in market returns to measure the risk of falling stock prices. The results of their research show that there is a significant relationship between the debt structure and the risk of falling stock prices, and information asymmetry does not affect the relationship between debt structure and falling stock prices, but informational corporate governance has an effect on the relationship between debt structure and falling stock prices. The stock price is influential. In a research, Difond et al. (2020) investigated the effect of the CEO's power on the risk of a future fall in stock prices in the Bucharest Stock Exchange. The results of the research show that the findings of the research indicate a negative and significant relationship between the power of the CEO and the fall in stock prices.

3. Research method:

1.3. Research hypotheses

The assumptions of this research are:

1. There is a relationship between the risk of stock fall and stock return.

2. There is a relationship between institutional investment and stock returns.

3. There is a relationship between the risk of stock fall and the role of liquidity moderator on stock returns.

4. There is a relationship between institutional investment and the moderating role of liquidity on stock returns.

1.3. Research model and variables

The regression models to test the first hypothesis are as follows:

1) $R_{oa}i, t = \alpha_0 + \beta_1 CR_i, t + \beta_2 OCF_i, t + \beta_3 SIZE_i, t + \beta_4 SYSTEMATIC_i, t + \beta_5 ACC_i, t + \varepsilon_i, t$

The regression model to test the second hypothesis is as follows:

2) $R_{oa}i, t = \alpha_0 + \beta_1 Ins_i, t + \beta_2 OCF_i, t + \beta_3 SIZE_i, t + \beta_5 4YSTEMATIC_i, t + \beta_5 ACC_i, t + \varepsilon_i, t$

The regression model to test the third hypothesis is as follows:

2) $R_{oa}i, t = \alpha_0 + \beta_1 CR_i, t + \beta_2 Liq_i, t + \beta_3 CR_i, t * Liq_i, t + \beta_4 OCF_i, t + \beta_5 SIZE_i, t + \beta_6 SYSTEMATIC_i, t + \beta_7 ACC_i, t + \varepsilon_i, t$

The third model is used to test the fourth hypothesis:

3) $R_{oa}i, t = \alpha_0 + \beta_1 Ins_i, t + \beta_2 Liq_i, t + \beta_3 Ins_i, t * Liq_i, t + \beta_4 OCF_i, t + \beta_5 SIZE_i, t + \beta_6 SYSTEMATIC_i, t + \beta_7 ACC_i, t + \varepsilon_i, t$

where in:

Roa= annual rate of return on stocks

  CR= risk of falling stock price

  Ins = institutional ownership

  Liq= liquidity ratio

  OCF = operating cash flow

  SIZE = company size

  ACC = accrual ratio

  SYSTEMATIC = systematic risk

A) dependent variable: return on assets

The rate of return on assets is obtained by dividing the net profit by the total assets of the company (Peek, 2019).

b) independent variables

1) The risk of falling stock prices

In this research, the negative skewness of stock returns has been used to measure the risk of the company's stock price falling. In this regard, first, the monthly return of the company is calculated using the following relationship (Kodkhodaei, 2013):

$Wj, t = Ln(1 + \varepsilon j, t)$

Wj,t = specific monthly return of company j in month t during the financial year;

εij = the residual yield of company j's stock in month t and is the residual of the model in the following relation:

$Rj, t = \alpha j + \beta 1jRm, t - 1 + \beta 2jRm, t - 2 + \beta 3jRm, t + \beta 4jRm, t + 1 + \beta 5jRm, t + 2 + \epsilon j, t$

Rj,t= return on shares of company j in month t during the financial year;

Rm,t = market return in month t. To calculate the monthly return of the market, the index at the beginning of the month is deducted from the index at the end of the month; And the result is divided by the index at the beginning of the month. Then, using the specific monthly return of the company, the following relationship is used to calculate the negative skewness of the stock return:

$NCSKEWj, t = -\left(\frac{n(n-1)^{3/2}\sum wj,i^3}{(n-1)(n-2)(\sum wj,i^2)^{3/2}}\right)$

NCSKEWj, t = negative skewness of monthly returns of company j's stock during financial year t,

Wj,t= specific monthly return of company j in month t

N= the number of months for which the returns have been calculated.

2) Institutional ownership

The percentage of institutional ownership is obtained by dividing the number of shares owned by investment companies, insurance, banks, and pension funds by the total number of company shares multiplied by 100.

c) Adjusting variable: liquidity ratio

Liquidity ratio is obtained by dividing cash and cash equivalents and securities that can be easily converted into cash by current liabilities (Qaemi and Toosi, 2015).

d) control variables

1) Ratio of accrual items

Total accruals (TAi,t) are obtained from the difference between earnings before unexpected items (EARNi,t) and cash flows from operating activities (CFOi,t). Total accruals divided by total assets shows the ratio of accruals (Hass Yaganeh, 2019).

2) Operating cash flows:

The following formula is used to calculate operating cash flow (Ghanbari, 2017):

CFO = NI + NCC + ΔWC

where: NI is the net profit and NCC is the non-cash expenses that should be added to the net profit; Because these types of expenses have reduced the net profit, but no money has been taken out of it, such as depreciation ΔWC = changes in working capital.

3) Systematic risk

In order to measure the systematic risk of the company, the sensitivity coefficient (β) of the company has been used. Simply put, the systematic risk of each share determines the rate of return that the owner of that share should expect to earn. The beta coefficient (β) is equal to the covariance of the share return with the return of the market securities portfolio divided by the variance of the market securities portfolio (Safdari and Asdalahi, 2015).

B=COV (RS, R,N)/VARN

B = Systematic risk

COV (RS, R, N) = covariance of share returns with market securities portfolio returns

VARN = variance of market securities portfolio

4) Company size:

The size of the company is calculated in different ways such as assets, which in this research is calculated through assets. That is, the logarithm of total assets is a measure of the size of the company (Makarami, 2017).

3.3. Society and statistical sample

The statistical population of the research includes all companies admitted to the Tehran Stock Exchange.

Table 1. Determining the size of the statistical sample

remaining	Number of deletions from the sample	Conditions	ROW
229	268	To select a homogeneous sample, companies must have been admitted to the Tehran Stock Exchange before 2014 and their shares have been traded on the stock exchange since the beginning of 2014.	1
278	66	In order to select active companies, the transactions of these companies during the years 1394 to 1400 in the stock market have not been interrupted for more than three months.	2
229	49	In terms of increasing comparability, the financial period of the companies should end in March.	3
193	36	between the years 1394 and 1400, there should be no change of activity or change of financial year.	4

| 132 | 61 | It should not be among the investment, financial intermediation, banking and leasing industries. | 5 |

After considering all the above criteria, 132 companies have been selected as a statistical sample. Therefore, the observations during the period from 2014 to 2014 reach 924 company years (132 x 7 years).

4. Findings
4-1- Descriptive statistics of research variables

Table 2. Descriptive statistics of research variables

Kurtosis	crookedness	maximum	Minimum	standard deviation	Average	Number of observations	Variable
4.6456	0.4960		0.1938	0.1973	0.11023	924	**Stock returns**
6.81595	1.67503	0.1763	0.19731	0.22626	0.35016	924	**The risk of falling stock prices**
6.81595	1.67503	0.59731	0	0.22626	0.35016	924	**Institutional ownership**
3.6548	2.49048	0.49731	0.19378	0.09895	0.35213	924	**Liquidity**
5.24594	3.98496	0.57634	4.1763	2.71355	4809/9	924	**size of the company**
5.1621	1.03611	15.8452	0.0645	0.4984	0.09714	924	**The ratio of accrual items**
9.4933	7.3779	0.1712	0.1013	0.42397	0.43649	924	**Systematic risk**
4.0392	2.60999	0.5779	0.03966	0.28772	0.18069	924	**Operating cash flow**

According to Table 2, the average stock return of the sample companies is equal to 0.11023 and its lowest and highest values are 0.1938 and 0.1763, respectively. According to Figure 1-4, the descriptive statistics of the research variables; The highest average is related to the company size variable and the lowest average is related to the accrual items ratio variable. The highest standard deviation is related to company size variable and the lowest standard deviation is related to company liquidity variable.

2.4. The test of the normality of the distribution of the dependent variable of the research

Table 3. The results of the normality test of the dependent variable of the research

(Sig)	(K-S)	(N)	Variable
0.000	4.616	924	Stock returns

Due to the fact that for the stock return variable, the significance level of the K-S statistic is less than 0.05, so the hypothesis that the distribution of these variables is normal is rejected at the 95% confidence level, indicating that the stock return variable has a normal distribution. are not

The normality of the dependent variable is a necessary condition for regression models, so it is necessary to normalize this variable before testing the hypotheses. In this research, it was done to normalize the data through the logarithm function. The results of the K-S test after the data normalization process are as described in the following table.

Table 4. The results of the normality test of the dependent variable of the research after the normalization process

(Sig)	(K-S)	(N)	Variable
0.761	1.670	924	Stock returns

According to Table 4: Since after data normalization, the significance level (Sig.) of the Kolmogorov-Smirnov statistic for the dependent variable is higher than 0.05 (0.761), so the hypothesis is confirmed at the 95% confidence level and indicates It is that the stock return variable has a normal distribution after the normalization process.

3.4. Regression test defaults

Table 5. Chow and Hausman test results for the first model

P-Value	DF	value of the statistic	statistics	Number	Test
0.0284	5	3.0932	F	924	Chow
0.0394	5	3.0705	χ^2	924	Hausmann

Table 6. Chow and Hausman test results for the second model

P-Value	DF	value of the statistic	statistics	Number	Test
0.0054	6	4.1793	F	924	Chow
0.0215	6	3.326	χ^2	924	Hausmann

Table 7. Chow and Hausman test results for the third model

P-Value	DF	value of the statistic	statistics	Number	Test
0.000	6	4.9436	F	924	**Chow**
0.000	6	**5.2265**	χ^2	924	**Hausmann**

According to the results of Chow's test and its P-Value; The test hypothesis was rejected at the 95% confidence level, indicating that the panel data method can be used. Also, according to the results of the Hausman test and its P-value, which is less than 0.05, the test hypothesis is rejected at the 95% confidence level and the hypothesis is accepted. Therefore, it is necessary to estimate the model using the fixed effects method.

In order to measure the validity of the model and check the assumptions of classical regression, in addition to checking the absence of collinearity between the independent variables entered in the model, tests related to the normality of the residuals, homogeneity of variances, independence of the residuals and the absence of model specification error (linearity) model) can also be done. Different tests can be used to test the normality of error sentences. One of these tests is the Jarquio-Bera test, which was also used in this research. Jarkio-Bera test results indicate that the residuals obtained from the estimation of the research model have a normal distribution at the 95% confidence level, so that the probability of this test is greater than 0.05. Another statistical assumption of classical regression is homogeneity of variance of the residuals. If the variances are unequal, the linear estimator will be unbiased and will not have the least variance. In this study, Pagan cut test was used to check the homogeneity of variances. According to the significance level of this test, which is less than 0.05, the null hypothesis of homogeneity of variance is rejected and it can be said that the model has a problem of heterogeneity of variance. In this study, the generalized least squares (GLS) estimation method was used to solve this estimation problem. Also, Durbin-Watson (D-W) test was used in this study to test the non-correlation of residuals, which is one of the assumptions of regression analysis and is called autocorrelation. According to the preliminary results of Durbin-Watson's statistical model estimation, since it is between 1.5 and 2.5, it can be concluded that the residuals are independent of each other. In addition, to test that the model has a linear relationship and whether the research model is correctly explained in terms of its linear or non-linear relationship, Ramzi's test was used. Due to the fact that the level of significance of Ramzi's test is greater than 0.05, therefore, the null hypothesis of this test based on the linearity of the model is confirmed and the model does not have a clear error. The summary of the results of the above tests is presented in the following tables.

Table 8. The results of tests related to statistical assumptions for the first model

Ramsey		Durbin-Watson	Breusch-Pagan		Jarque-Bera	
$P-Value$	F	D	$P-Value$	F	$P-Value$	χ^2
0.6238	**3.4722**	**2.421**	**0.0302**	**1.0845**	**0.3412**	**1.3435**

Table 9. The results of tests related to statistical assumptions for the second model

آماره Ramsey		آماره Durbin-Watson	آماره Breusch-Pagan		آماره Jarque-Bera	
$P-Value$	F	D	$P-Value$	F	$P-Value$	χ^2
0.0943	**5.0326**	**2.154**	**0.0042**	**1.835**	**0.7325**	**1.1045**

Table 10. The results of tests related to statistical assumptions for the third model

آماره Ramsey		آماره Durbin-Watson	آماره Breusch-Pagan		آماره Jarque-Bera	
$P-Value$	F	D	$P-Value$	F	$P-Value$	χ^2
0.1564	**4.1954**	**2.312**	**0.0039**	**1.7213**	**0.6324**	**1.4356**

According to the results of the Chow and Hausman tests and the results of the classical regression statistical assumptions test, the research model is estimated using the panel data method and as fixed effects.

4.4. Test of the first and second hypothesis

Table 11. The results of the multivariate regression of the first and second hypothesis

ε	t	β	Variable name	symbol	Variable type
—	—	—	Stock returns	**Y**	**dependent variable**
0.000	-3.648	-1.744	Alpha	**α**	**Constant**
0.000	-4.788	*-0.440	risk of falling stock prices	**X1**	**Independent variables**
0.000	4.165	*0.165	Institutional investment	**X2**	
0.000	4.995	*0.627	size of the company		
0.000	-2.904	*-0.722	ratio of accrual items		**control variables**
0.000	-3.854	*-0.587	Systematic risk		
0.000	- 4.795	*-0.114	Operating cash flow		
—	—	2.421	D W		
0.000	—	9.742	F		
—	—	0.479	R^2		**R Square**
—	—	0.493	R^{-2}		**Adjusted R Square**

As this table 11 shows, because the error level of the variables of stock price fall risk, institutional investment, company size, accrual ratio, systematic risk and operational cash flow is less than 5%; Therefore, there is a significant relationship between these variables and the company's stock returns. The coefficient of variables shows that the relationship between the ratio of accruals and the company's stock returns is higher than the rest of the variables.

Considering that the error level of F statistic is less than 5% (0.000), therefore the calculated regression model is significant, in other words, a logical relationship between the variables has been established.

Also, according to the obtained coefficient of determination, the independent variables explain 49.7% of the changes in the company's stock returns. Watson's camera statistic is also between 1.5 and 2.5 (1.421); So it can be concluded that there is no autocorrelation problem between the error sentences in the regression equation.

• **The result of the first hypothesis test**

The negativity of the coefficient of the variable risk of stock price fall (-0.440) indicates the inverse relationship between the risk of stock price fall and the returns of companies' shares; So that with an increase of 1 unit in the risk of falling stock price, the yield of the company's stock decreases by 0.440 units. Therefore, according to the analyzes carried out in connection with the confirmation of the first hypothesis of the research, it can be concluded that there is a significant and inverse relationship between the risk of falling stock prices and the company's stock returns.

• **The result of the second hypothesis test**

The positivity of the variable coefficient of institutional investment (0.165) indicates a direct relationship between institutional investment and companies' stock returns; So that with an increase of 1 unit of institutional investment, the yield of the company's stock increases by 0.165 units. Therefore, according to the analyzes carried out in connection with the confirmation of the second hypothesis of the research, it can be concluded that there is a significant and direct relationship between institutional investment and the company's stock returns.

5.4. Test of the third hypothesis

Table 12. The results of multivariate regression of the third hypothesis

ε	t	β	Variable name	symbol	Variable type
_	_	_	Stock returns	Y	**dependent variable**
0/000	4.944	0.765	Alpha	α	**Constant**
0/000	-3.731	-0.257*	risk of falling stock prices	X1	**Independent variables**
0/000	5.109	0.198*	Liquidity	X2	**Modifier variable**
0/000	3.781	*0.136	Risk of falling stock price* Liquidity	X3	
0/000	-5.034	*-0.628	ratio of accrual items	**control variables**	
0/000	4.775	*0.118	size of the company		
0/000	-4.875	-0.538*	Systematic risk		
0/000	-3.936	-0.108*	Operating cash flow		
_	_	2.154	D. W		

0/000	_	14.002	F		
_	_	0.612	R^2		**R Square**
_	_	0.604	R^{-2}		**Adjusted R Square**

As this table shows, because the error level of the risk variables of falling stock price, liquidity, company size, ratio of accruals, systematic risk and operating cash flow is less than 5%; Therefore, there is a significant relationship between these variables and the company's stock returns. The coefficient of variables shows that the relationship between the ratio of accruals and the company's stock returns is higher than the rest of the variables.

The negativity of the coefficient of the variable risk of stock price fall (-0.257) indicates the inverse relationship between the risk of stock price fall and the returns of companies' shares; So that with an increase of 1 unit in the risk of falling stock price, the return on stock decreases by 0.257 units.

The positivity of the company's liquidity variable coefficient (0.198) indicates a direct relationship between liquidity and stock returns of companies; So that with an increase of 1 unit of liquidity, the stock return also increases by 0.198 units.

By comparing the variable coefficients of the stock price fall risk in the tables, the third hypothesis is confirmed and it can be concluded that the company's liquidity weakens the inverse relationship between the stock price fall risk and the company's stock returns. Because the risk factor of falling stock price in table 11 is equal to 0.44 and in table 12 after entering the liquidity variable; It has decreased to 0.257.

Considering that the error level of F statistic is less than 5% (0.000), therefore the calculated regression model is significant, in other words, a logical relationship between the variables has been established.

Also, according to the coefficient of determination obtained, the independent variables explain 61.2 percent of the changes in the company's stock returns. Durbin Watson's statistic is between 1.5 and 2.5 (2.154); So it can be concluded that there is no autocorrelation problem between the error sentences in the regression equation.

6.4. The test of the fourth hypothesis

Table 13. The results of the multivariate regression of the fourth hypothesis

ε	t	β	Variable name	symbol	Variable type
_	_	_	Stock returns	Y	**dependent variable**
0.000	5.176	0.447	Alpha	α	**Constant**
0.000	3.293	*0.317	Institutional investment	X1	**Independent variables**
0.000	4.914	*0.215	Liquidity	X2	**Modifier variable**
0.000	4.792	*0.175	Institutional investment* Liquidity	X3	
0.000	-5.915	*-0.785	The ratio of accrual items		

0.000	3.126	*0.254	size of the company	**control**
0.000	-5.099	*-0.339	Systematic risk	**variables**
0.000	-4.441	*-0.407	Operating cash flow	
_	_	2.132	D. W	
0.000	_	16.547	F	
_	_	0.633	R^2	R Square
_	_	0.629	R^{-2}	Adjusted R Square

As this table shows, because the error level of institutional investment variables, liquidity, company size, accrual ratio, systematic risk and operating cash flow is less than 5%; Therefore, there is a significant relationship between these variables and the company's stock returns. The coefficient of variables shows that the relationship between the ratio of accruals and the company's stock returns is higher than the rest of the variables.

The positivity of the variable coefficient of institutional investment (0.317) indicates a direct relationship between institutional investment and companies' stock returns; So that with an increase of 1 unit of institutional investment, the stock return increases by 0.317 units.

The positive coefficient of the company's liquidity variable (0.215) indicates a direct relationship between the liquidity and stock returns of companies; So that with an increase of 1 unit of liquidity, the stock return also increases by 0.215 units.

By comparing the variable coefficients of institutional investment in tables (4-12) and (4-14); The fourth hypothesis is confirmed and it can be concluded that the company's liquidity makes the direct relationship between institutional investment and the company's stock returns stronger. Because the coefficient of institutional investment in table 11 is equal to 0.165 and in table 13 after entering the liquidity variable; It has increased to 0.317.

Considering that the error level of F statistic is less than 5% (0.000), therefore the calculated regression model is significant, in other words, a logical relationship between the variables has been established.

Also, according to the coefficient of determination obtained, the independent variables explain 63.3 percent of the changes in the company's stock returns. Watson's camera statistic is also between 1.5 and 2.5 (1.132); So it can be concluded that there is no autocorrelation problem between the error sentences in the regression equation.

5. Conclusion

According to the results of the first hypothesis of the research, there is an inverse and significant relationship between the risk of falling stock prices and the return on shares of companies listed on the Tehran Stock Exchange in the years 2014 to 2014, and this result points to the fact that the higher the risk of falling stock prices in the company, Stock returns decrease.

The increase in the risk of the stock price falling, which can be caused by the increase in debts and financial leverage, the inability of management to run the company, the inefficiency of investment and the loss of the company, etc., causes the loss of confidence of investors and shareholders in the company and the demand for the company's shares. comes down.

Shareholders also try to sell their shares at a lower price, which reduces the company's annual return.

According to the results of the second hypothesis of the research, there is a direct and significant relationship between institutional investment and stock returns of companies listed on the Tehran Stock Exchange in 2014 to 2014, and this result points to the fact that the higher the institutional investment in the company, the higher the stock return. increase.

institutional owners with expert managers and sufficient financial resources; They can lead to better management and improve the performance of the company. Also, the institutional owners with greater supervisory power reduce agency problems and information asymmetry in the company, which can ultimately increase annual returns.

Based on the results of the third hypothesis of the research; The liquidity of the company weakens the inverse relationship between the risk of falling stock prices and the stock returns of companies listed on the Tehran Stock Exchange.

Companies that face the risk of falling stock prices; Losing the trust of shareholders and investors will reduce the company's return. But if the company is at a favorable level in terms of liquidity; It can restore the trust of the capital market actors to the company by implementing the optimal policy of profit sharing and efficient investment and debt payment and cause the company to grow.

Based on the results of the fourth research hypothesis; The company's liquidity makes the direct relationship between institutional investment and stock returns of companies listed on the Tehran Stock Exchange stronger.

Institutional investors with their influence, capable managers and financial resources increase the annual return of the company's shares. If the company is at an optimal level in terms of liquidity, this can play a double role in improving stock returns and increases the efficiency of institutional owners.

The results of this research are consistent with the research of Rao and Zhou (2019). In Rao and Zhou's research, the relationship between the risk of falling stock prices and institutional ownership with stock returns has been investigated, emphasizing the moderating role of liquidity of Shanghai Stock Exchange companies during the period from 2005 to 2015. Their results showed that the risk of falling stock prices causes a decrease in stock returns and the liquidity ratio weakens this relationship. Also, institutional ownership increases stock returns and the liquidity ratio strengthens this relationship.

6. Practical research suggestions

Based on the results of the first hypothesis based on the inverse relationship between the risk of falling stock prices and stock returns; It is recommended to the managers and directors of the companies to prioritize compliance with the principle of compliance in the reporting of the company's income and expenses, because delaying the company's debts causes the accumulation of debts and increases the company's bankruptcy risk. Also, financing the company through equity can reduce financial leverage and ultimately reduce the risk of falling stock prices.

Based on the results of the second hypothesis based on the direct relationship between institutional investors and stock returns; It is recommended to the stock exchange organization

to provide the necessary platforms for the investment of institutional owners in the stock market; Because government owners can improve the company's financial performance with the influence they have in the government and with the financial resources they have. It is also recommended to investors that the return on shares of companies whose shares are owned by institutional owners is higher and to consider this issue when choosing a company for investment.

Based on the results of the third hypothesis that the company's liquidity weakens the relationship between the risk of falling stock prices and stock returns, it is recommended for company managers to keep the company's liquidity at a favorable level because of the conditions that Iran's capital market is facing (volatility). in macroeconomic variables); High liquidity can effectively expose the company to systematic risk.

Based on the results of the fourth hypothesis that the company's liquidity makes the relationship between institutional investment and stock returns stronger; Company managers are advised to prioritize the use of stock market timing theory because sometimes in the capital market; The value of the company's shares is overvalued, and at this time, the release of shares can benefit the company, and with the increase in liquidity; Part of the company's debts are covered. This doubles the influence of institutional investors on the company's stock returns.

The results of this research are consistent with the research of Rao and Zhou (2019). In Rao and Zhou's research, the relationship between the risk of falling stock prices and institutional ownership with stock returns has been investigated, emphasizing the moderating role of liquidity of Shanghai Stock Exchange companies during the period from 2005 to 2015. Their results showed that the risk of falling stock prices causes a decrease in stock returns and the liquidity ratio weakens this relationship. Also, institutional ownership increases stock returns and the liquidity ratio strengthens this relationship.

Suggestions for future research
According to the results of the research, students are suggested to carry out this research in the following fields:

1. Investigating the effect of company liquidity on the relationship between the risk of falling stock prices and institutional investment with stock returns by industry in Tehran Stock Exchange

2. Studying the effect of internal control systems on the relationship between the risk of falling stock prices and institutional investment with stock returns

3. Investigating the factors affecting the stock returns of companies using genetic algorithms and artificial neural networks

4. Investigating the effect of the company's liquidity on the relationship between the risk of falling stock prices and institutional investment with stock returns by life cycle stages in companies listed on the Tehran Stock Exchange.

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