



# Investigating the Relationship between Ownership Structure, Information Asymmetry, and Liquidity in Listed Companies in Tehran Stock Exchange.

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**Abstract:** *The primary purpose of this research was to investigate the relationship between ownership structure, information asymmetry and liquidity in firms listed in the Tehran Stock Exchange. The study was a correlational research with methodology of the post-event survey; and the statistical population of the research consisted of the companies listed in the Tehran Stock Exchange during the period from 2008 to 2014. The results revealed that there is a significant relationship between institutional ownership, pension fund ownership and bank and insurance ownership, and liquidity in listed companies in the Tehran Stock Exchange. As well as, there is a significant relationship between institutional ownership, pension fund ownership and bank and insurance ownership, and information asymmetry in the companies listed in the Tehran Stock Exchange.*

**Keywords:** *Stock Exchange, Tehran, Management, Performance.*

## INTRODUCTION

In Iran, because companies' stocks belong to the government and enforcement Article 44 of the constitution law and privatization, we observe presents of organizations and institutions in which the process of transfer of ownership is known as institutional investors and as owners of new stocks, more stocks of the companies are transferring, dedicated to themselves. A part of the companies and institutional investors are insurance companies including social security institution, pension funds, trading insurance companies and investment companies. Institutional owners because of the considerable professional financial analysis are segregated from other investors. As a result, institutional investors more than investors, take care of information quality and need them; but from the late of 90's, the hypothesis of effective supervision as well as institutional investors are important and can be used to monitor and to make performance management in line with the interests of shareholders. The presence of institutional investors in the ownership structure of the company impacts on how to monitor the firm's operations in the past few years, institutional investors to continuously monitor their companies. In this regard, several studies focused on the role of institutional investors as the main role in the corporate governance structure (Bozec. and Bozec, 2007; Chang and Zhang, 2011). The aim of this study is whether institutional investors' impacts on information asymmetry and investment market liquidity in the Tehran Stock Exchange. On the one hand, institutional investors often regarded as knowledgeable representatives. Due to the high volume of assets owned because they are able to get private information (Fehle, 2004) asymmetry of information between people with private information (institutional investors) and unconscious people (minority shareholders) can have a negative impact on market liquidity. On the other hand, signaling theory suggests the claim that the property is one of the mechanisms of corporate governance and its mission is such a way that investors are encouraged to invest in these companies and therefore increase the trading volume and liquidity of the market. The relationship between market liquidity and institutional ownership is unclear. In theory, this relationship is asymmetry of information

between the various stakeholders of the company. Based on the assumptions related to adverse selection, institutional investors considered as knowledgeable investors. They access to private information were able to gather information about the value of the business (Bai et al., 2002). In this regard, Glosten and Milgrom (1985) showed that market participants due to the presence of institutional investors face with the costs of the reverse face. In addition, because of the high investment deal, offering quick service makes the market manages its assets with a high price. According to the theoretical assumptions of the transaction, it is likely that the portfolios of institutional investors, increase market liquidity. Institutional investors trade in their portfolios that have a positive impact on market liquidity. The relationship between institutional investors and liquidity due to signaling theory is also reasonable. According to this research, institutional shareholders have the potential to carry out surveillance activities on management, and this is a positive sign for the market participants. Institutional investors can protect your assets to pay higher regulatory costs (Shleifer and Vishny, 1988). As a result, they can encourage managers in the field of accounting and ultimately make better decisions (Baker and Wallage 2000). In this way institutional investors as a mechanism of governance are considered to reduce the contrary between the representation of shareholders and managers, ensuring the transparency of information, guarantee and corporate governance reformed; and especially in countries where they are weak in terms of law and are protected investment interests less. This will encourage other investors to invest in these companies, and as a result, it increases transaction volume. Institutional investors have more interested in companies with more transparency and reliability to companies with higher liquidity. (Eakins et al., 1998) showed that the risks of foreign institutions and companies choose to avoid the expected future positive returns. In the framework of the theory of governance, shareholder activities as an alternative regulatory mechanism are considered, it likely will decrease costs of representation and conflict of interest between shareholders and major shareholders and minority shareholders. The behavior of institutional investors and motivates of them depends on control policy, corporate governance as well as a portfolio of prospects for investment, long-term or short-term nature of their relationship (Bushee and Noe 2000 and Chen et al., 2007). According to the explanations target, this study examines the relationship between ownership structure with information asymmetry and stock liquidity that, information asymmetry is in the form of liquidity measures as the dependent variable in this study.

## **1. Research Background**

### 2-1 internal records

Ghariblou and Sharafi (2014) identify the effects of behavioral finance with an emphasis on efficiency and volume weekdays at Tehran Stock Exchange. This research was conducted in the field of behavioral finance and research problem is a weekly effect. In this paper, the efficiency effect of beginning, middle, and the last of the week and also the effect of trading volume in the first, middle and last week in Tehran Stock Exchange in the period of 6 years (2007-2011) and were studied by using T-test. The purpose of this research is to identify the behavior of investors and find a way to profit is added in the Tehran Stock Exchange. The research effectiveness largely determines the Tehran Stock Exchange. The results showed that the effect of the sun on Saturday as a strong and semi-strong form of efficiency compared to other days of the week, and average yields are lower than other days. Also, Wednesday's effect compared to other days of the week due showed a strong impact and average yields compared to other days of the week was more. About the volume of exchanges, there is Saturday and Wednesday effect so that Wednesday's average trading is more than Saturday. These effects show that investors earn higher returns on the Wednesday of the next week and buy more stocks; they also lost hope of higher yields and sell shares at the beginning of the week. Ramsheh (2014) examined the correlation of stock liquidity indices in Tehran Stock Exchange. This study due to the importance of liquidity in the capital markets investigates the correlation between stock liquidity indexes in Tehran Stock Exchange. Liquidity indicators used in this study include shares in circulation, the proportion of illiquidity, zero efficiency criteria, bid and sell stock index is adjusted a relative number of days without transaction on the basis of shares in circulation. In this regard, information for the period 2003 until 2009, from 38 companies were evaluated on a monthly

basis. The results indicate that the correlation between the overall indexes is weak. Deflator number of days without transaction on the basis of turnover, the highest correlation with other indicators, and in small companies than large companies, the correlation between the indices is more. Generally, this study shows that liquidity is a complex multi-dimensional concept that each index can only reflect an aspect of liquidity. Roodposhti and others (2013) examined the effect of liquidity of the secondary market on initial offering price in Tehran Stock Exchange. Due to the increased activity of the capital market, the importance of pricing companies in the Stock Exchange of arrival is obvious. On the other hand, the liquidity as the lifeblood of financial markets is considered, this study is trying to pay attention to the role of liquidity in the discovery of asset prices, distribution, and financial risks and reduce transaction costs, the effect of these parameters and factors related to its pricing of its initial release. After analyzing the results, the findings show that the liquidity of the secondary market in determining the price of the initial offering effective and thus that the variables associated with the pricing of the initial offering, the size of the initial release negative impact of the industry risk in determining and positive impact on the supply price. Jalili and others (2013) examine the relationship between information asymmetry, trading, and liquidity of the Company's shares were listed on the Tehran Stock Exchange. This study examined the relationship between information asymmetry, trading volume, and liquidity of shares of listed companies in Tehran Stock Exchange. The data for this study were used panel data, combined data are shown with panel data and integrative form. To choose between panel data, and a combination of tests F-Limmer is used. This research in term of application is applied and in term of nature is the cross-correlation. The study population consisted of listed companies in Tehran Stock Exchange in the time domain between the years 2005 to 2011 and by using systematic elimination sampling, 94 companies have been studied in the sample. SPSS software was used for all estimates. Therefore it can be concluded that the increase in stock trading and stock liquidity, reduce information asymmetry.

## 2-2 foreign-background

Gow-Cheng Huang & Kartono Liano (2015) investigate the effect of separation (analysis) shares on the stock's liquidity. The impact of separation (analysis) will check stock on stock liquidity. The findings show that most significantly the liquidity measures announced a stock splits increase. After the announcement of the stock split, the liquidity of the units is reduced but the analysis is still above the level already, so it seems that the effects of the stock split on stock short-term liquidity. It was also observed that changes in liquidity could significantly impact to explain the release date (declaration). Totally, it seems that the findings with the assumptions of the theory of the signal system and improve the liquidity assumptions are not compatible. Niroscha Hewa well algae, Stuart Locke (2015) investigated companies engaged in the ownership structure and capital structure in New Zealand. This study uses a panel of unregistered companies in New Zealand during the years 2009-1998. While the debt in the capital structure is important for all companies, the research using dynamic panel generalized from the moment estimating and using Granger causality test to assess the effects of financial leverage ownership structure. It shows an inverse relationship between individual ownership and financial leverage and other results of the study is the cross-sectional structure of stock ownership can be changed in capital structure influence. Shahsavar, Mohammadreza; Lashgari, Zahra (2015) examined the relationship between transparency and liquidity of the company and the liquidity and efficiency of markets. The main objective of this paper is to investigate the presence and absence of the relationship between transparency with liquidity of trading unit, market liquidity, and market efficiency, thus assumptions based on the underlying assumption was that the survey results indicate no association between levels of transparency with swing liquidity in trading unit and there is no correlation between levels of transparency levels of market liquidity and market efficiency. Janbou and Chan (2015) examines the liquidity, credit quality and the relationship between volatility and activity of stock, bonds, provided evidence of the market. The role of illiquidity and credit risk in determining the relationship between bond prices fluctuate and the frequency and size of the transaction based on the transaction to transfer massive amounts of data has examined in the period from October 2004 to June 2012. Based on the results of a positive relationship has been observed between swing and number of transactions and a negative correlation between volatility and transaction size. According to the forecasts made on the basis of previous studies examining non-liquidity has more risk. In

addition, both liquidity and credit risk at the time of fluctuating variables are more important and their influences are more. The results indicate that liquidity and credit risk factors important in the relationship between volatility and trading in company securities market. Yee Cheng Loona and Zhaodong Ken Zhongb (2015) investigated the effect of offset on risk, liquidity, and transaction. In this paper, the impact of offset is investigated in the transaction on credit market debt (CDS) using a sample of contracts that were voluntarily disclosed, Results show that the purchase reduces the risk. In addition, the relationship between debt and credit risk after the initial purchase credits that represent a reduction of systemic risk is weak. These findings after controlling for market failures (CDS) and bond market was stable. The sample analysis indicates that increased transparency after purchase with improved liquidity and trading activity is associated. Guang Chen et al (2015) examines how reactions turnover, reactions to the efficiency of the financial dynamics is conducted. Example 2 based on market data in China and the stock market in the United States. According to the Chinese market returns in the stock price is a positive correlation with the volume of trading, but in the US stock market compare to the Chinese market, the correlation is negative. Financial leverage has a positive correlation with equity market returns and trading volume in the United States and China stock markets and creates a new hope and a different financial dynamics in mature and emerging markets.

### 3 -Method

Scientific preceding studies can be based divided on the fundamental purpose of the three preceding studies, functional and developmental. Based on the classification, preceding studies are divided to the historical, descriptive, correlational and experimental and casual. The way you want to do and ex-post facto quasi-experimental study (using data from the past), in the field of research and PAT, is based on real information. This research aims to explore relationships between factors and specific conditions or type of event that already exists or occurred, studying the results of them. In other words, the researcher to investigate possible causal relationships through results and background on them in hopes of finding the cause of the phenomenon.

#### 3-1 statistical community and sample

The population of this research is all listed companies in Tehran Stock Exchange that have been active from 2009 until 2014.

The sample is selected and organized based on the following criteria:

Full financial statements and the accompanying notes for each of the companies in the study of the territory a year ago and when research is available.

Companies in the financial year have not changed during the study period.

Type of activity is not financial intermediation. Due to the elimination of firms in the industry is that the nature of financial intermediation activities of these companies is a significant difference with other companies. In order to enhance comparability, the fiscal year of companies was studied that ended on March 30.

Table 3-1: selective sample

The total number of listed companies during the study period	364
Is deducted:	
The number of companies that were active in the time domain 2009-2014	( 119 )
The number of companies with fiscal year have not changed ending in March or during the course of this financial year	( 79 )
The number of companies were in the group holding companies, investment	( 55 )

and financial intermediation	
The number of sample firms	111

### 3-3 hypotheses test method

To investigate the hypothesis test, following models were used. The pattern is as follows:

$$DAR_i = C + b_1 IINST + b_2 \ln PRICE + b_3 \ln VOLT + b_4 \ln CB + b_5 \ln VOLM$$

$$I_{Asy}_i = C + b_1 IINST + b_2 \ln PRICE + b_3 \ln VOLT + b_4 \ln CB + b_5 \ln VOLM$$

$$DAR = C + b_1 PF + b_2 \ln PRICE + b_3 \ln CB + b_4 \ln VOLM + b_5 \ln VOLT$$

$$I_{Asy} = C + b_1 PF + b_2 \ln PRICE + b_3 \ln CB + b_4 \ln VOLM + b_5 \ln VOLT$$

$$DAR_i = C + b_1 BA\&AS + b_2 \ln PRICE + b_3 \ln VOLT + b_4 \ln CB + b_5 \ln VOLM$$

$$I_{Asy}_i = C + b_1 BA\&AS + b_2 \ln PRICE + b_3 \ln VOLT + b_4 \ln CB + b_5 \ln VOLM$$

where:

DAR: Stock Liquidity

I<sub>Asy</sub> = asymmetry of information

IINST: institutional shareholders

(PF): Property Pension Fund

lnPRICE: closing price

lnVOLT: deviation of return on equity

lnCB: logarithm of the company's capital

lnVOLM: turnover

lnBASPA: absolute gap between bid and offer prices

BA & AS: shareholders of the bank and insurance

### 3-4 definition of the variables were used in the study

#### The dependent variable

The dependent variable of the study is liquidity and information asymmetry of firms and how to calculate them as follows:

#### Liquidity

Rial depth: the total number of shares offered to buy at the bid price plus the number of shares proposed sale at a suggested price sales were achieved:

$$DM = PA \cdot QA + PB \cdot QB$$

In the above equation DM is Rial depth, PA bid sales, QA amount of the proposed sale, PB Price Offer and QB is the amount of offer to purchase.

#### Data asymmetry:

The relative gap between bid and offer prices (data asymmetry): this ratio is obtained by dividing the price difference between bids and selling on average bids:

$$S = \frac{PA - PB}{(PA + PB) / 2}$$

#### Independent variable

In this study, independent variables include ownership structure and how to calculate is as the following:

#### Institutional shareholders (INST)

Institutional ownership: In this study, institutional investors will be considered as independent. As defined by Bushee (1998) institutional investors, big investors such as banks, insurance companies, investment companies and who can have an enormous amount of their operations back to trade shares (Fakhari and Taheri, 2009).

Institutional ownership is obtained of the stock split of the Company's shares.

#### Shareholders of the bank and insurance (BA & AS)

The stock split bank and insurance company achieved total shares.

#### Property Pension Fund (PF)

The stock split of the Company's shares acquired by the Pension Fund.

#### Control variable

Control variables of this study are the following:

#### Turnover (volm)

The obtained average annual turnover of the company

#### Deviation of return on equity (volat)

The deviation of the return on equity achieved

#### WAP (price)

The company achieved average annual WAP

#### Logarithm of the company's capital (lncb)

The natural logarithm of capital obtained

#### 3-5 Methods and tools for data analysis

To analyze data, descriptive and inferential statistical methods were used. All analyzes were performed by using Stata 12 software.

-Descriptive statistics, including mean, standard deviation. The average using was because the average amount of each of the values of variables to be specified and the standard deviation of the mean was to determine the distribution of variables.

- Statistical methods including multivariate linear regression. In this study of relationships between variables regression equations was used.

#### 3-6 data collection method

Information will be collected by the library. Thus, in the first part, studies about the subject of books, research papers and scientific journals, theses student and reputable online sites is collected and studied. The second part is to collect data and information needed for the investigation, the official sites of the Tehran Stock Exchange, databases such as software RAHAVARD new sites irbourese, Kdal, Iran Analysis, rids and other use reputable sites will be used that it was just a library.

## 4- Findings

Specific data corresponding to 110 companies listed in the Tehran Stock Exchange, which including the period 2008 to 2014.

Table 1: descriptive statistics

Variable	Symbol	Minimum	Maximum	Average	Standard deviation
Institutional ownership	IINST	0	0/94	0/43	0/37
Ownership of banks and insurance	BA&AS	0	0/36	0/087	0/22
Property Pension Fund	PF	0	0/54	0/19	0/21
Turnover	LnVOLM	0/05	10995530	/8 61994	35221/33
Deviation of return on equity	LnVOLT	0/021	0/339	0/066	0/14
Closing Price	LnPRICE	0/7	721/98	25/103	34/51
Capital	LnCB	4/45	8/008	6/16	0/45
liquidity	DAR	1266842	34521669	/88 8412369	/34 9822147
Information asymmetry	I Asy	0/004	0/141	0/034	0/045

4-2 normality test

Table 2: normality test

Variable	Shapiro Wilk	Significant level
Error sentence of first hypothesis	0/74	0/26
Error sentence of second hypothesis	0/69	0/32
Error sentence of third hypothesis	0/25	0/87
Error sentence of fourth hypothesis	1/02	0/097
Error sentence of fifth hypothesis	1/19	0/076
Error sentence of sixth hypothesis	0/63	0/38

Normality of variables indicating the type of test was used in statistical measures. Normality test indicates the distribution of the data. As can be seen in Table 2, the test result is a significant level for all

data, the top 5 percent, indicates the normality of the data. Normality of data distribution and specifies the scattering data.

4-4 co-liner test

Table 3: co-liner test

Variable	Symbol	First hypothesis	Second hypothesis	Third hypothesis	Fourth hypothesis	Fifth hypothesis	Sixth hypothesis
Institutional ownership	IINST	1/22	1/84	-	-		-
Ownership of banks and insurance	BA&AS	-	-	-	-	1/54	1/39
Property Pension Fund	PF	-	-	1/97	1/16	-	-
Turnover	LnVOLM	1/68	1/94	1/87	2/01	1/22	1/31
Deviation of return on equity	LnVOLT	1/08	1/21	1/38	1/41	1/31	1/48
Closing Price	LnPRICE	1/01	1/08	1/97	1/34	1/24	1/48
Capital	LnCB	1/23	1/48	1/57	1/28	1/29	2/43

Co-linearity values indicating the probability of internal correlation between variables. Values greater than 10 indicate the possibility of co-linearity of the line between independent variables and values over 15 indicate a serious problem is the use of regression in the status quo.

4-5 F-Limer test

Table 4: F- Limer test

Hypothesis	Effect of test	Statistic	Significant level	Test result	
1	F	23/81	0/000	Fixed effects	test
2	F	26/41	0/000	Fixed effects	
3	F	19/34	0/000	Fixed effects	
4	F	14/84	0/000	Fixed effects	
5	F	23/11	0/000	Fixed effects	
6	F	31/52	0/000	Fixed effects	



results show that the amount of under 5% significance level models. So assuming H0 (consolidated version) cannot be approved.

4-6.Hausman test

Table 5: Hausman test

hypothesis	Summery of test	Chi-square statistic	Significance	Test result
1	Random period	0/93	0/138	Random effects model
2	Random period	0/49	0/63	Random effects model
3	Random period	0/41	0/62	Random effects model
4	Random period	1/74	0/059	Random effects model
5	Random period	1/05	0/078	Random effects model
6	Random period	0/68	0/39	Random effects model

As it is evident from the figures, a significant amount of research hypotheses for more than 5%. Therefore, the null hypothesis of random effects model is confirmed. This means that there is no relationship between the estimated regression error and independent variables. According to the results of panel data is used to test the hypotheses.

4-7 heterogeneity of variances and autocorrelation test

Table (6) autocorrelation and inequality variance

hypothesis	unequal variants test		inequality	Autocorrelation test		Autocorrelation
	F	Significant level		F	Significant level	
1	0/39	0/677	Does not have	0/63	0/452	Does not have
2	0/75	0/23	Does not have	0/842	0/2	Does not have
3	0/89	0/13	Does not have	0/69	0/24	Does not have
4	0/57	0/39	Does not have	0/74	0/35	Does not have
5	1/12	0/096	Does not have	0/63	0/42	Does not have
6	1/06	0/101	Does not have	0/75	0/36	Does not have

Volatility test results showed that significant levels were higher than 5%. Therefore, the null hypothesis is not rejected, it means the variables have the same variance and are not autocorrelation.

4-7. the first hypothesis test

H0: there is a significant relationship between institutional ownership and liquidity in listed companies in Tehran Stock Exchange.

H1: there is a significant relationship between institutional ownership and liquidity in listed companies in Tehran Stock Exchange.

Results Table 7 shows the optimized model to test the hypothesis. Wald statistic (52.03) and P (0.000) confirms the significance of the model to test the hypothesis. Wald rich test results also showed there is no correlation between the residuals. Adjusted coefficient of determination is 18%. Institutional ownership variable as the independent variable, dependent variable and liquidity as turnover, deviation of return on equity, WAP and capital known as control variables in research. Due to the significant level of institutional ownership variable (0.009) in the following table with variable liquidity has a direct and positive relationship. There is significant correlation between variables control the volume of transactions, deviation of return on equity, WAP and investors with liquidity.

Table 7: first hypothesis test

DAR i = Cb1IINST+ b2LnPRICE+ b3LnVOLT+ b4LnCB+ b5LnVOLM				
Variable	Symbol	Coefficient	Z Statistic	Significant level
Institutional ownership	IINST	054/0	2/84	0/009
Turnover	LnVOLM	0/17	3/42	0/000
Deviation of return on equity	LnVOLT	-0/021	-2/86	0/007
WAP	LnPRICE	0/14	2/63	0/013
Capital	LnCB	0/18	2/26	0/035
Intercept	0β	0/06	2/59	0/018
Adjusted coefficient of determination		0/18	Wald statistic	52/03
			Significant level	0/000

4-8. The second hypothesis test

H0: there is a significant relationship between information asymmetry and institutional ownership and firms listed in the Tehran Stock Exchange.

H1: there is a significant relationship between institutional ownership and information asymmetry firms listed in the Tehran Stock Exchange.

Table 8 shows the optimized model to test the hypothesis. Wald statistic (16/57) and P (0.000) confirms the significance of the model to test the hypothesis. Wald rich test results also showed no correlation between the residuals. 20% is the adjusted coefficient of determination. Institutional ownership variables as independent variables, the information asymmetry as dependent variable and turnover, deviation of return on equity, WAP and capital known as control variables in research. Due to the significant level of institutional ownership variable (004/0) in the table below with the information asymmetry variable is negative relationship. Between variables control the volume of transactions, deviation of return on equity, WAP and investors with information asymmetry there.

Table 8: second hypothesis test

I ASY <sub>i</sub> = Cb <sub>1</sub> IINST+ b <sub>2</sub> LnPRICE+ b <sub>3</sub> LnVOLT+ b <sub>4</sub> LnCB+ b <sub>5</sub> LnVOLM				
Variable	Symbol	Coefficient	Z Statistic	Significant level
Institutional ownership	IINST	109/-0	-2/99	0/004
Turnover	LnVOLM	-0/034	-2/48	0/021
Deviation of return on equity	LnVOLT	-0/153	-2/69	0/018
WAP	LnPRICE	-0/017	-10/52	0/000
Capital	LnCB	-0/35	-2/45	0/021
Intercept	0β	0/16	2/88	0/009
Adjusted coefficient of determination		0/203	Wald statistic	57/16
			Significant level	0/000

4-9 Third hypothesis test

H0: there is a significant relationship between the ownership of the pension fund and the liquidity of the firms listed in the Tehran Stock Exchange.

H1: there is a significant relationship between the pension fund and liquidity ownership in companies listed on Tehran Stock Exchange has.

Table 9 shows the optimal model to test the hypothesis. Wald statistic (54/67) and P (0.000) confirms the significance of the model to test the hypothesis. Wald rich test results also showed no correlation between the residuals. Adjusted coefficient of determination is 29%. Variable owned pension fund as an

independent variable, dependent variable and liquidity as turnover, deviation of return on equity, WAP and capital known as control variables in research. Variable pension fund property due to the significant level (0.000) in the following table with variable liquidity has a direct and positive relationship. Between variables control the volume of transactions, deviation of return on equity, WAP and investors with liquidity there. Given that the pension fund and liquidity ownership in companies listed on Tehran Stock Exchange has a significant connection, third hypothesis is confirmed.

Table 9: third hypothesis test

DAR <sub>i</sub> = 0β + b <sub>1</sub> PF+ b <sub>2</sub> LnPRICE+ b <sub>3</sub> LnVOLT+ b <sub>4</sub> LnCB+ b <sub>5</sub> LnVOLM				
Variable	Symbol	Coefficient	Z Statistic	Significant level
Property Pension Fund	PF	28/0	3/43	0/000
Turnover	LnVOLM	0/088	2/63	0/018
Deviation of return on equity	LnVOLT	-0/01	-2/74	0/009
WAP	LnPRICE	0/04	0/87	0/3
Capital	LnCB	0/078	2/93	0/005
Intercept	0β	0/12	1/01	0/314
Adjusted coefficient of determination		0/29	Wald statistic	67/54
			Significant level	0/000

4-10 the fourth hypothesis test

H0: there is a significant relationship information asymmetry between the property and pension fund companies listed on Tehran Stock Exchange.

H1: there is a significant relationship information asymmetry between the property and pension fund companies listed on Tehran Stock Exchange.

Table 10 shows the optimized model to test the hypothesis. Wald statistic (55.71) and P (0.000) confirms the significance of the model to test the hypothesis. Wald rich test results also showed no correlation between the residuals. Adjusted coefficient of determination is 24%. Variable pension fund property as independent variables, the information asymmetry as dependent variable and turnover, deviation of return on equity, WAP and capital known as control variables in research. Variable pension fund property due to the significant level (0.000) in the table below with the information asymmetry variable is negative relationship. There is a relationship between variables control the volume of transactions, deviation of return on equity, WAP and investors with information asymmetry.

Table 10: fourth hypothesis test

I ASY <sub>i</sub> = 0β + b <sub>1</sub> PF + b <sub>2</sub> LnPRICE+ b <sub>3</sub> LnVOLT+ b <sub>4</sub> LnCB+ b <sub>5</sub> LnVOLM				
Variable	Symbol	Coefficient	Z Statistic	Significant level
Ownership of banks and insurance	PF	173/-0	-3/06	0/000
Turnover	LnVOLM	-0/162	-4/96	0/000
Deviation of return on equity	LnVOLT	-0/098	-2/02	0/048
Closing Price	LnPRICE	0/12	2/82	0/005
Capital	LnCB	31/-0	-3/63	0/000
Intercept	0β	0/3	1/16	0/296
Adjusted coefficient of determination		0/24	Wald static	55/71
			Significant level	0/000

4-11 fifth hypothesis test

H0: there is a significant relationship between ownership and liquidity in banks and insurance companies listed in the Tehran Stock Exchange.

H1: there is a significant relationship between ownership and liquidity in banks and insurance companies listed in the Tehran Stock Exchange.

Table 11 shows the optimized model to test the hypothesis. Wald statistic (85/60) and P (0.000) confirms the significance of the model to test the hypothesis. Wald rich test results also showed no correlation between the residuals. Adjusted coefficient of determination is 26%. Changing ownership of banks and insurers as the independent variable, dependent variable and liquidity as turnover, deviation of return on equity, WAP and capital known as control variables in research. Changing ownership of banks and insurance due to the significant level (018/0) in the following table with variable liquidity has a direct and positive relationship. Between variables control the volume of transactions, deviation of return on equity, WAP and investors with liquidity there. Given that there is a significant connection the ownership and liquidity in banks and insurance firms listed in the Tehran Stock Exchange, the fifth research hypothesis is confirmed.

Table 11: the fifth hypothesis test

DAR <sub>i</sub> = 0β + b1 BA&AS+ b2LnPRICE+ b3LnVOLT+ b4LnCB+ b5LnVOLM				
Variable	Symbol	Coefficient	Z Statistic	Significant level
Ownership of banks and insurance	BA&AS	085/0	2/56	0/018
Turnover	LnVOLM	0/114	3/69	0/000
Deviation of return on equity	LnVOLT	-0/234	-2/93	0/005
Closing Price	LnPRICE	0/17	2/98	0/004
Capital	LnCB	14/0	2/12	0/037
Intercept	0β	0/021	0/96	0/344
Adjusted coefficient		0/26	Parent static	60/85
			Significant level	0/000

4-12 sixth hypothesis test

H0: there is a significant relationship between information asymmetry and the ownership of banks and insurance firms listed in the Tehran Stock Exchange.

H1: there is a significant relationship between information asymmetry, the ownership of banks and insurance firms listed in the Tehran Stock Exchange.

Table 12 shows the optimized model to test the hypothesis. Statistics parent (54.88) and P (0.000) confirms the significance of the model to test the hypothesis. Wald rich test results also showed no correlation between the residuals. Adjusted coefficient of determination is 25%. Changing ownership of banks and insurance companies as independent variables, asymmetry of information as the dependent variable and turnover, deviation of return on equity, WAP and capital as control variables in the study are known. Changing ownership of banks and insurers with regard to the significance level (0.000) in the following table with variable asymmetry of information negatively or inversely. Between variables control the volume of transactions, deviation of return on equity, WAP and investors with information asymmetry there. According to the information asymmetry, there is a significant relationship between the ownership of banks and insurance companies listed in the Tehran Stock Exchange, the sixth hypothesis of the study was confirmed.

Table 12: the sixth hypothesis test

b5LnVOLM+ b4LnCB+ b3LnVOLT+ b2LnPRICE+ b1 BA&AS + 0β =I ASY i				
Variable	Symbol	Coefficient	z Statistic	Significant level
Ownership of banks and insurance	BA&AS	19/-0	4/05	0/000
Turnover	LnVOLM	-0/103	3/13	0/000
Deviation of return on equity	LnVOLT	0/287	2/64	0/012
WAP	LnPRICE	-0/064	-2/19	0/036
Capital	LnCB	27/-0	-2/93	0/006
Intercept	0β	0/053	0/81	0/366
Adjusted coefficient		0/25	Wald statistic	54/88
			Significant level	0/000

## 5. Conclusion

### 5-1 The first hypothesis test results

The first hypothesis about that there is a significant relationship between institutional ownership and liquidity in listed companies in Tehran Stock Exchange. As reported, Multivariate regression methods were tested according to the results of the test panel data to confirm this hypothesis in elderly. The results with the results are consistent with Suhgenie's results (2015). The results show the presence of institutional investors, increase the confidence of investors in the company and ultimately increase company liquidity elderly.

### 5-2 The second hypothesis test results

The second hypothesis about that there is a significant relationship between institutional ownership and information asymmetry in companies listed on Tehran Stock Exchange introduced the method multivariate regression tested according to the results of the test panel data this hypothesis is confirmed. The results with the results are consistent Suhgenie (2015). The results show the presence of institutional investors, reduce information asymmetry and information placed at the disposal of the public.

### 5-3 The third hypothesis test results

The third hypothesis about the ownership of the pension fund has a meaningful relationship with the liquidity of the companies listed on the Tehran Stock Exchange, introduced the method multivariate regression tested according to the results of the test panel data this hypothesis is confirmed. The results with the results are consistent with Suhgenie (2015). The results show that the owners of the pension fund to increase the confidence of investors and ultimately increase company liquidity elderly.

#### 5-4 The fourth hypothesis test results

The fourth hypothesis about the ownership of pension funds has a meaningful relationship with information asymmetry in companies listed on Tehran Stock Exchange, introduced the method multivariate regression tested according to the results of the test panel data this hypothesis confirmed. The results with the results are consistent with Suhgenie (2015). The results show the presence of the owners of the Pension Fund of creating a conflict of interest and therefore prevent information asymmetry.

#### 5-5 The fifth hypothesis test results

The fifth hypothesis about the ownership of banks has a meaningful relationship with insurance and liquidity in listed companies in Tehran Stock Exchange, introduced the method multivariate regression tested according to the results of the test panel data this hypothesis was confirmed. The results with the results are consistent with Suhgenie (2015). The results show that there are owners of banks and insurance fund increased benefits for investors and ultimately increase company liquidity elderly.

#### 5-6 The sixth hypothesis test results

The sixth hypothesis about the ownership of banks has a meaningful relationship with insurance information asymmetry in companies listed on Tehran Stock Exchange, introduced the method multivariate regression tested according to the results of the test panel data hypothesis the above is confirmed. The results with the results are consistent Suhgenie (2015). The results show that there are owners of banks and insurers from creating a conflict of interest and thus preventing information asymmetry and may disclose more information to making a decision.

#### 5-7 Recommendations

1 .According to the first hypothesis, there is a significant relationship between institutional ownership and liquidity in listed companies in Tehran Stock Exchange, was introduced the Company proposed to increase institutional ownership in the company, attracting more capital to buy and sell credits to become a better company.

2 .According to the second hypothesis, there is a significant connection between information asymmetry between institutional ownership in companies listed on Tehran Stock Exchange, was introduced to the Company proposed to increase institutional ownership in the company, the misuse of information management and prevent conflicts of interest.

3 .According to the third hypothesis, there is a significant relationship between the ownership of the pension fund and the liquidity of the companies listed on the Tehran Stock Exchange has, was introduced. The Company proposed to increase the pension fund property companies, investors' confidence that they now have the ability and the power of money is necessary so that the time required to liquidity needs through the sale of acquired shares.

4 .According to the fourth hypothesis, there is a significant relationship between the ownership of pension funds and information asymmetry in companies listed on Tehran Stock Exchange has, was introduced to the Company proposed, the management of corporate information and disclose more information to your advantage not to be able to attract the necessary investment.

5. According to the fifth research hypothesis, there is a significant connection between the ownership and liquidity in banks and insurance companies listed on the Tehran Stock Exchange, it was introduced to the Company proposed to increase ownership of banks and insurance companies to increase the financial strength of companies and investors are more willing to invest in their company.

6. According to the sixth hypothesis research on information asymmetry there is a significant relationship between banks and insurance ownership in companies listed on Tehran Stock Exchange, it was introduced to the Company proposed to increase ownership of banks and insurance companies, control agents and external monitoring of use, so that by increasing the control and monitoring of behavior and



information management are on the right track and to further expose their information, So investors can make investment decision.

#### References:

Jalili Saber; Badavar Nahandi Yones; karimi Behrouz(2013) "Investigating the relationship between the asymmetry of information, transactions and liquidity of shares of companies listed on Tehran Stock Exchange" study of accounting and auditing, pp. 1-21

Ramesheh, Manizheh, (2014), correlation between stock liquidity in Tehran Stock Exchange indices, graduate thesis, Islamic Azad University of Freidon, Department of Accounting, Isfahan, Iran

Roodposhti directory, Fereidon, Pourzamani, Zahra and Bateni, Leila, (2013), Investigating the effect of liquidity on the secondary market price of the initial offering in the Tehran Stock Exchange, scientific Journal of asset management and financing, first year, first issue, Pages: 74-63

Gharib lou, Reza; Sharafi, Reaza, (2014), identifying the effects of behavioral finance with an emphasis on efficiency and volume weekdays at Tehran Stock Exchange, Journal of Financial Analysis Knowledge Exchange, seventh Year, Issue Twenty-Two

Bae, K., Kang, K. and Kim, J. (2002), "Tunneling or value added? Evidence from mergers by korean business groups", The Journal of Finance, Vol. 57 No. 6, pp. 2695-2740.

Bushee, Brian J (1998),"The influence of institutional investors on myopic R&D investment behavior", Accounting Review 73, 305-333.

Baker, R. and Wallage, P. (2000), "The future of financial reporting in Europe: its role in corporate governance", The International Journal of Accounting, Vol.35 No. 2, pp. 173-187.

Bozec, Y. and Bozec, R. (2007), "Ownership concentration and corporate governance practices: substitution or expropriation effects?", Canadian Journal of Administrative Sciences, Vol. 24 No. 3, pp. 282-195.

monitor,

Chen, X., Harford, J. and Li, K. (2007), "Monitoring: which institutions matter?", Journal of Financial Economics, Vol. 86 No. 2, pp. 279-305.

Chung, K. and Zhang, H. (2011), "Corporate governance and institutional ownership", Journal of Financial and Quantitative Analysis, Vol. 46 No. 1, pp.247-273.

Eakins, S., Stansell, R. and Wertheim, P. (1998), "Institutional portfolio composition: an explanation of the prudent investment hypothesis", Quarterly Review of Economics and Finance, Vol. 38 No. 1, pp. 93-109.

Fehle, F. (2004), "Bid-ask spreads and institutional ownership", Review of Quantitative Finance and Accounting, Vol. 22 No. 4, pp. 275-292.

Guang Chen, Tian Qiu, Xiong-Fei Jiang, Li-Xin Zhong,Xiao-Run Wu"(2015)", , How trading volume responds to return in financial dynamics? Physica A: Statistical Mechanics and its ApplicationsVolume 424, 15 April 2015, Pages 73–81

Nirosha Hewa wellalage , Stuart Locke , (2015) "Impact of ownership structure on capital structure of New Zealand unlisted firms: ", Journal of Small Business and Enterprise Development, Vol. 22 Iss: 1, pp.

Shleifer, A., Vishny, R., 1997. A survey of corporate governance. Journal of Finance 52, 737–783