

# The Relationship between Ownership Structure and Conservatism of Companies in Iran

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## Abstract

**Purpose** - Since Iran's economy is only now developing, and its stock market is only now emerging, we should deal with the relationship between ownership structure and conservative accounting of companies to see whether such a relationship exists in Iran's market. This study aims to investigate the relationship between ownership structure and accounting conservatism of listed companies on the Tehran Stock Exchange.

**Research design, data, and methodology** - All listed companies on the Tehran Stock Exchange, for which the required information financial statements (balance sheet, profit and loss account) could be acquired for the period 2007–2012, were studied. A total of 123 companies from various industries was selected.

**Results** - In order to test the hypotheses, multi variate regression (inter procedure), with their meaningful t- and f-statistics, and a Durbin-Watson autocorrelation model were used.

**Conclusions** - The research results show that the ownership of major shareholders and ownership concentration have a negative significant relationship with accounting conservatism. Therefore, as a significant negative relationship between concentration of ownership and accounting conservatism at the 95% confidence level was found, the second hypothesis was confirmed.

**Keywords:** Ownership Structure, Conservatism, Major Shareholder, Ownership Concentration.

**JEL Classifications:** F31, F47, L83.

## 1. Introduction

Ball (2001) and Watts (2003) propose that stock shareholders support conservatism as a monitoring tool. According to shareholders' demand for conservatism, LaFond and Roychowdhury (2008) show that conservatism is higher when the separation between ownership and control is announced more, and LaFond and Watts (2008) propose that the lack of equal access to information for managers and shareholders leads to conservative reports.

Financial lists form the main part of financial reporting. The objective of financial lists is to present categorized information about financial status, financial performance and financial flexibility of the business unit that would be useful for a wide range of people to make economic decisions.

The purposes of financial reporting and the basics of accounting necessitate the information from financial reporting to have certain features. In the theoretical concepts of Iran's financial reporting, these features are described as qualitative features. One of these features is conservatism which is defined as the use of a certain degree of vigilance which is needed for evaluating in vague conditions. Incomes or assets should not be presented more than they are or debts must not be reported less than they are.

Basu (1997) describes conservatism as being committed to having a high degree of confirmation for recognizing good news like benefit, as opposed to recognizing bad news like loss. This definition describes conservatism from the benefit and loss point of view. Another definition of conservatism is given using the balance sheet approach. According to this approach, in cases which there is a real doubt about choosing between a numbers of reporting procedures, that method must be chosen which would have the least effect on the salary of the stock shareholders.

The third definition of conservatism is based on the mixed approach of balance sheet and benefit and loss. In this third approach, conservatism is an accounting concept which results in the decrease of the reported benefit through late recognition of income and quicker recognition of cost, low evaluation of asset and high evaluation of debts.

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The most accepted definition of conservatism is a differentiated encounter with identifying benefit and loss. This differentiated approach is the result of an asymmetric investigation capability for benefits and losses. In other words, information which is less verifiable than benefit's information suffices. This symmetric investigation capability could result from employment contract or corporate governance. Managers conceal the information about loss in order not to lose their good reputation (Jang et al., 2012).

The extreme form of conservatism is defined as not identifying the benefits until their related information is completely identifiable. Why is not the extreme form of conservatism used? The reason is the cost of untimely information. Delay in identifying the benefits whose related information has a high degree of investigation capability is costly both for giving reward to managers and the approval of pecuniary benefit for shareholders. The application of the investigation capability principle allows an on time rewarding.

Institutional investors, who own a great deal of companies' stocks, have a great influence on those companies. Conservative accounting procedures prevents managers from a profit-seeking behavior and extreme optimism in presenting benefits, therefore resulting in more reliable benefit reports. In this research, we are going to indicate the effect of institutional owners on conservative accounting procedures.

LaFond and Roychowdhury (2008) showed that commercial units with property management mostly do not report a conservative benefit more than it is a fact which is in correspondence with the request of shareholders for reducing agents.

Jang et al. (2012) showed that the concentration of the management increases the possibility for overcoming the lack of information symmetry between managers and shareholders through private relational channels rather than public announcement. This leads to the decrease of demand for conservatism in benefits.

According to what has been previously mentioned, the question arises that is there a significant relationship between conservative accounting employed by companies and the degree of institutional ownership of companies? Therefore, our main objective in this research is to answer this question.

## 2. The Objectives

Each research is conducted for reaching specific objectives. These objectives are embedded in the research question. Research objectives could be general or specific.

The main objective of this research is to examine the relationship between ownership structure and accounting conservatism in companies which are listed on the Tehran Stock Exchange.

## 3. The Importance of the study

Since Iran's economy is only now developing and stock market is only emerging, we should deal with the relationship between ownership structure and conservative accounting of companies to see whether such a relation exists in Iran's market. The significance of this research could be viewed from two aspects. First, the theoretical significance which considers the relationship between conservative accounting and ownership structure in Iran's market and second, it's functional significance. By discovering these kinds of relationships, Shareholders and stakeholders could find out the degree of conservatism in accounting reports of companies according to their ownership structure and indicate the reliability of such reports for making important decisions.

The following chapters are organized as follows: in the second section the review of related literature is presented. In the third section, research methodology is described, the fourth section presents the analysis of data and findings, the fifth section consists of the results, the sixth section contains the list and references and the seventh section presents the abstract of the article in English.

## 4. Related Literature

LaFond and Roychowdhury (2008) showed that as the percentage of managers' ownership reduces, regarding to the negative correlation of their benefits with that of shareholders and the increase in the costs of the agency, the demand for conservatism increases.

Chi et al.(2009) conducted a study and found out that conservatism has a negative correlation with the percentage of major shareholders and there is more significance when the percentage of the major shareholders' ownership is more than 30%. Their research results also showed that governmental ownership has no effect on the relationship between the ownership of major shareholders and conservatism.

## 5. Research methodology

This research is a correlation type of research. Correlation research is conducted when the researcher has two or more groups of different information (in the form of independent variables) related to one group and the objective of the study is to examine the variation degree of 2 or more factors. Regression analysis is one type of correlation studies which would be used in this research.

The methodology of the current study is inductive-deductive, which means that the theoretical framework and background of the study through library reading, articles and websites are done using inductive reasoning and confirmation or rejection of hy-

pothesis happens through deductive reasoning. Regarding the goals, there search methodology is functional and regarding data collection method, it's descriptive correlation. This method is useful in studies which aim at discovering the relationship between variables. This research falls under the category of "after event" studies, because previous information is used for testing the hypothesis.

Since this study aims at reaching a scientific objective and gives useful information about current realities, it also has a functional nature.

A set of people or objects that have a minimum of one mutual feature are called population. In fact, population includes all people, events or objects that the researcher wants to study. The population of the current study is all listed companies on the Tehran Stock Exchange from 2007 to the end of 2012.

The main reason for selecting this population is that the information related to these companies is standard, reliable and conceivable.

### 5.1. Studied sample and sampling method

Sample is a part of the population. It's the set of measurements of the population that are collected in the course of study. The procedure of a study could be defined as an effort to conceive the behavior of a population based on the information collected from the sample. Information collection for the whole population is costly and time-consuming. Moreover, gathering information from the whole population is sometimes irrational. Therefore, we have to exclude a sample, although we know that sampling reduces the certainty and trustfulness of the results.

### 5.2. Data collection

Data for this study have been collected using two methods:

Information which was related to the theoretical discussions of the research has been collected from different sources like books and international journals which were available online. The information used for testing the research's hypotheses was collected using Tehran stock exchange's CDs and soft wares. In cases which the software did not contain the necessary data, companies' financial statements, reports of the board of directors and the reports received from Tehran stock exchange were used.

## 6. Research hypotheses

According to what has been previously mentioned, research hypotheses are explained as follows.

Hypothesis 1: there is a significant relationship between the ownership of major shareholders and conservative policy in accounting.

Hypothesis 2: there is a significant relationship between concentration of ownership and accounting conservatism.

Data analysis and research findings:

In the first phase of the study, we measure conservatism based on the revenue- income model proposed by Basu (1997) that incomes will return according to revenues and the revenue coefficient changes with a percentage of the revenue. This model uses positive (negative) joint profits to obtain good (bad) news. Basu (1997) estimates the following regression model:

$$NI_{jt} = \beta_0 + \beta_1 NEG_{jt} + \beta_2 RET_{jt} + \beta_3 RET_{jt} * NEG_{jt} + \epsilon$$

NI<sub>jt</sub>= yearly profit before the extraordinary announcement (IB) of the company (j) in the year (t).

RET<sub>jt</sub>= yield of company (j) during (t)

NEG<sub>jt</sub>= virtual variable of company(j) in the year (t) which is 1 for negative yields and 0 for positive yields.

In this equation, β<sup>2</sup> obtains the gradation of revenues related to good news and β<sup>3</sup> obtains the gradation related to bad news and therefore, it is a scale for conservatism.

Finally, for finding the relation between companies' ownership, concentration of ownership and conservatism, we used the model of Laffond and Watts (2008); Laffond and Roichood Harry (2008) and evaluate Basu's model, which indicate conservatism (Basu's correlation) as the ownership's performance and other factors which determine conservatism:

$$NI_{jt} = \beta_0 + \beta_1 NEG_{jt} + \beta_2 RET_{jt} + \beta_3 RET_{jt} * NEG_{jt} + \beta_4 Large\ Owner_{jt} + \beta_5 NEG_{jt} * Large\ Owner_{jt} + \beta_6 RET_{jt} * NEG_{jt} * Large\ Owner_{jt} + \beta_7 H_{jt} + \beta_8 NEG_{jt} * H_{jt} + \beta_9 RET_{jt} * NEG_{jt} * H_{jt} + \epsilon$$

NI<sub>jt</sub>= yearly profit before the extraordinary announcement (IB) of the company (j) in the year (t).

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NEG<sub>jt</sub>= virtual variable of company(j) in the year (t) which is 1 for negative yields and 0 for positive yields.

Large Owner<sub>jt</sub> = overall percentage of major shareholders' ownership of the company

H<sub>jt</sub>= equals to concentration of ownership which is obtained using the Herfindahl correlation as follows.

<Table 1> The results of descriptive statistics used in this study

	NI	NEG	RET	Large Owner	H
Mean	13.50018	0.161	0.3867	0.531	4613
Median	13.41480	0.412	0.3267	0.431	3902
Maximum	18.43763	1	11.086	0.875	9012
Minimum	10.66202	0	2.1543-	0.263	835.231
Standard Deviation	1.384028	0.189	0.8331	0.14028	902

Table 1 shows that the variable "yearly profit" before unexpected announcement (NI(which is homogenized using its natural logarithm, has a mean of 13.500. the highest value of this variable is 18.437 and its lowest is 10.662. Standard deviation of this variable is 1.38 which has less dispersion compared to other related studies. The lowest value for company's revenue (RET) is 2.154 and its highest is 11.08, while its mean is 0.38.concentration of ownership is obtained using the Herfindahl index which ranges from 0 to 100000. The mean for concen-

tration of ownership is 4613, its highest value is 9012 and its lowest is 835.23. Moreover, the results of this study for the mean of the percentage of major shareholders' ownership show 0.531, which means that in the sample companies of this study, half of companies' stocks are possessed by owners who have more than 5% share of the company. The Maximum and minimum for this variable are 0.87 and 0.26, relatively. Table 1 also contains descriptive statistics of other research variables.

Since the correlation method has been used in this study, we should first show that the variables studied in the correlation test are normally distributed.

$H_0$ : Data distribution is not normal

$H_1$ : data distribution is normal

Table 2 shows the level of significance of the Kolmogorov-Smirnov test for dependent variables of the study.

<Table 2> Normal distribution test

	NI	NEG	RET	Large Owner	H
Number of observations	615	615	615	615	615
Kolmogorov-Smirnov statistics	1.212	0.741	2.564	2.111	0.987
significance	0.106	0.643	0.653	0.762	0.066

As we can see, the level of significance for Kolmogorov-Smirnov test for research variables is higher than 0.05, so these variables have a normal distribution. We use parametric tests for the analysis of data and testing the research hypotheses.

In order to test research hypotheses, we have used regression and the analysis of panel data.

In order to combine cross-sectional data and time series data, we use panel data method. In the panel data method, we measure variables both among the population (company) and over time (year).

In order to test the recognition of panel data, we use the Chaw test.

Hypotheses of this test are as follows:

$H_0$ : Pooled Model

$H_1$ : Panel Model

Hypothesis  $H_0$  is based on the lack of unobservable individual works and  $H_1$  is based on the existence of unobservable individual works. If  $H_0$  hypothesis is accepted, it means that the model lacks unobservable individual works. Therefore, it can be estimated using the model of combined regression, but if  $H_1$  hypothesis is accepted, it means that unobservable individual works exist in the model.

The results of this study show that the value of statistic F is 16.32 where p-value is zero. Therefore, the hypothesis of combined model is not confirmed. In other words, individual or group works exist and panel data method must be used for evaluating the model. In the next stage, for indicating a suitable model for estimating the regression model, White and Hausman

tests were used.

<Table 3> Panel or pooled tests

Test	Statistics	P-value	Result
F	16.32	0.00	Panel data method
Chi-square	41.19	0.00	

For studying the Variance anisotropy among disturbing statements, (ARCH) LM and White tests were used. The results of the Variance anisotropy test are expressed in the following tables:

<Table 4> The results of the ARCH LM test

Description	Value of statistics	Probability
F-statistic	154.226	0.0000
Obs*R-squared	200.897	0.0003

<Table 5> The results of the White test

Description	Value of statistics	Probability
F-statistic	7.890247	0.0030
Obs*R-squared	14.66849	0.0021
Scaled explained SS	61.10174	0.0045

Probability of the model's tests is lower than 5%. Since the statistics of this test is not significant at the 5% level, the consistency assumption is rejected and Variance anisotropy of disturbing statements is accepted.

For testing the significance of fixed effects method, Hausman and F tests must be used.

<Table 6> The results of the F test (Test cross-section fixed effects)

Description	Value of statistics	Degree of freedom	Probability
Cross-section F	7.57403	111	0.0003

<Table 7> The results of the Hausman test

Descriptive	Value of statistics	D.f	Probability
Cross-section random	16.076208	5	0.0034

Since the probability obtained from both tests which were conducted for the regression model were less than 5%, we should use the fixed effects method in this model.

The hypotheses of the study could be expressed as null hypothesis and alternative hypotheses:

$H_0$ : there is not a significant relationship between ownership

by major shareholders and conservative policy in accounting.

H<sub>1</sub>: There is a significant relationship between ownership by major shareholders and conservative policy in accounting.

H<sub>0</sub>: There is not a significant relationship between concentration of ownership and accounting conservatism.

H<sub>1</sub>: There is a significant relationship between concentration of ownership and accounting conservatism.

Assumptions of linear regression:

<Table 8> F test for measuring the linear relationship

description	Value of statistics	probability
F-statistic	3.563728	0.012142

Table 9 shows that the estimated coefficient for the RET variable ( $\beta_4$ ) is 0.4123. Looking at the significance column, we see that the estimated coefficient is significant at the confidence level of 95%, for its significance level is 0.023 which is less than 0.05. Consequently, this variable must be remained as an independent variable in the multivariate regression model of the research. moreover, table 9 shows that the estimated coefficient for the RET\*NEG\* Large Owner variable ( $\beta_6$ ) which was used for testing the first hypothesis of the study is equal to - 0.013 and this means that this coefficient is significant at the error level of 0.05. In other words, there is a significant negative relationship between ownership by major shareholders and conservative policy in accounting. The first hypothesis of the research is confirmed.

Table 9 also shows that the estimated coefficient for the variable RET\*NEG\* H is equal to -0.038 which according to the significance column, it sob served that the estimated coefficient is significant at the confidence level of 95%, because its significance is 0.008 and this number is less than the accepted error in this research. Therefore, the significant negative relationship between concentration of ownership and accounting conservatism is confirmed and this means that the second hypothesis of the research is confirmed. In addition, the results of the analysis of the data using the regression model shows that the coefficient of determination is 34% and it shows that 34% of the changes of the dependent variable are caused by the independent variables.

### 7. Discussion and conclusion

In the analysis of multivariate regression model, the estimated coefficient for the variable RET\*NEG\* Large Owner ( $\beta_6$ ) is equal to 0.013 and the significance of this coefficient is 0.012 and this is less than the error level of error which is accepted in this research. In other words, there is a significant negative relationship between the ownership of major shareholders and conservative accounting policy. This confirms the first hypothesis and it's in line with the theoretical basics discussed in previous chapters and our expectations. Previous studies expressed that institutional investors have a great influence on companies. They also have some stimulus for monitoring the procedures in the company (including accounting procedures). Conservative accounting procedures deter managers from opportunistic behavior and excessive optimism in presenting the profits and therefore, result in more reliable profit reports. This study aims at determining the influence of institutional owners on conservative accounting procedures (Jang et al., 2012).

<Table 9> The results of the mixed regression analysis test

$Nl_{jt} = \beta_0 + \beta_1 NEG_{jt} + \beta_2 RET_{jt} + \beta_3 RET_{jt} * NEG_{jt} + \beta_4 \text{ Large Owner}_{jt} + \beta_5 NEG_{jt} * \text{ Large Owner}_{jt} + \beta_6 RET_{jt} * NEG_{jt} * \text{ Large Owner}_{jt} + \beta_7 H_{jt} + \beta_8 NEG_{jt} * H_{jt} + \beta_9 RET_{jt} * NEG_{jt} * H_{jt} + \epsilon$				
variables	coefficients	Standard error	statistics	significance
NEG	5.090854	220.1415	2.312555	0.0219
RET	0.412337	0.360148	1.144908	0.0238
RET*NEG	1.215408	1.155408	1.047891	0.2961
Large Owner	0.507594	0.169239	2.999269	0.0031
NEG* Large Owner	0.002626	0.000552	1.134628	0.0251
RET*NEG* Large Owner	0.013981-	0.036185	0.110016	0.0124
H	0.030118	0.044603	0.675257	0.4998
NEG* H	0.012064	1.308490	0.032759	0.1912
RET*NEG* H	0.038671-	1.020545	0.928452	0.0080
C	0.268999	10.77539	2.312555	0.0000
Determination coefficient	0.349614	F		3.563728
Adjusted determination coefficient	0.032994	Significance		0.012142
standard error of regression	42.12277	Durbin-Watson		1.617666

The estimated coefficient for the variable "RET\*NEG\* H" is 0.038 which according to the significance column, the estimated coefficient is significant at the confidence level of 95%. Its significance is 0.008 and this number is less than 5%, the level of error accepted in this research study. Therefore, the significant negative relationship between concentration of ownership and accounting conservatism at the confidence level of 95% has been confirmed, the second hypothesis being approved.

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