

# Effect of Information Asymmetry and Mutual Funds Ownership on Earnings Management in Companies Listed in Tehran Stock Exchange

Farhad Azizi<sup>1</sup>
PhD Student, Department of Accounting, Qeshm Branch, Islamic Azad University, Qeshm, Iran

#### **Abstract**

Managers smooth profits for any reasons. One of the core objectives in earnings management is to create a more stable flow in order to support higher level of interest payable. More stable profit flow may view as lower risk, which may lead to higher stock price and less cost of borrowing. Earnings management also focuses on enterprise management inclination to enhance investors' expectation and to reduce firm's risk. Due to increased profit stability and reduced fluctuations, investors may provide more accurate prediction on future profits. The present research studies the effect of information asymmetry and mutual funds ownership on earnings management among companies listed in Tehran Stock Exchange. Research statistical population included all mutual funds during 2011-2016. This is an applied study in term of purpose; and it is essentially a descriptive-correlation study. The present research analyzes earnings management through using Dechow and Dichev model. The model deals with the relationship between accruals and cash flows to measure earnings management. Research results showed that information asymmetry has no effect on earnings management. In addition, there is a significant relationship between funds classification and earnings management, which may influence earnings management. Research results may be applied for all listed companies, investors, and stock exchange.

**Keywords:** Information asymmetry, earnings management, investment funds.

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<sup>&</sup>lt;sup>1</sup> Corresponding author's email: Azizi.f7@gmail.com

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#### Introduction

Nowadays, earnings management is considered as a fascinating and challenging issue in accounting studies since investors are particularly interested in the profit figure as an important decision-making factor. Regarding that the major role of financial reporting is to timely and authentically transfer information efficacy to external individuals, managers may use their knowledge of business activities for improving financial statement efficacy as means of information transferring to potential investors and creditors. However, if managers are encouraged to mislead financial statements' users through exercising authorizations on accounting selection in financial reporting, it probably would lead to earnings management.

Managers smooth profit due to various reasons. One major purpose of earnings management is to create a more stable flow to support higher interest payable. More stable profit flow may be viewed as lower risk, which may lead to higher stock prices and less cost of borrowing. Earnings management also focuses on enterprise management inclination to enhance investors' expectation and to reduce firm's risk. Due to increased profit stability and reduced fluctuations, investors may provide more accurate prediction on future profits.

Earnings management occurs once the management employs its own judgment in financial reporting and transaction structure such that the firm performance alternative reports are provided to mislead some stakeholders. Information asymmetry, institutional ownership, and their effects on earnings management are ignored in most literatures. As information asymmetry is frequently related to inequality of information values obtained from multiple market participators, and accounting information presents relatively precise information to the market attendants. The information may aid investors to realize the company's operational initiatives; hence, decreases information asymmetry between investors and management. Moreover, investing institutions also perform well in identifying operational conditions and management control. There are many scientific controversies on how institutional investors influence earnings management.

One of the aims of financial reporting is to provide information to investors, creditors, and other current and potential users that are useful for adopting investment, attestation, and other associated decisions. Company's current and previous profits are of significant criteria the aforementioned groups take for estimating the firm's profitability, predicting prospective profits and affiliated risks, as well as evaluating management performance. The profit also consists of cash and accrual items; profit accrual items are relatively controlled by management. The management can manipulate accrual items or manage the so-called profit to better show the firm's performance and to improve prospective profits predictability. In other words, managers try to create constant and predictable results by selecting allowable accounting methods since most investors and managers believe that companies enjoying proper profitability and undergoing no major changes in their profits have larger value and predictability, and higher comparability comparing corresponding firms.



Hanton et al (2006) experimentally investigated whether higher transparency decreases earnings management. Their research results revealed that the need for more transparent reporting may decrease earnings management attempt or change earnings management focus into less observable methods.

Zhao and Zheng (2003) presented that a small part of investors are dealing with inefficient market service delivery mechanisms and inadequate regulatory means, which would cause higher costs of information surfing and investment information interpretation for institutional investors. Thus, the level of investment information asymmetry between investors and companies must more influence the relationship between investment institutions and earnings management (Yanhao dai, 2013).

According to the studied conducted in this area, institutional investors significantly contribute in improving quality of accounting information as they tend to management supervision and direction; further, more transparent reporting may larger affect earnings management. Thus, the present research is focused to find the answer to the questions that whether the information transparency level influences firms' earnings management behavior in the market; if inclination to mutual funds goes on, would different characteristics of mutual funds differently influence firms' management? How do both critical factors influence earnings management?

# Research hypotheses

H<sub>1</sub>: Information asymmetry influences earnings management.

 $\mathbf{H}_2$ : Classifying investment funds into long-term and short-term influences earnings management.

H<sub>3</sub>: Decreased information asymmetry and long-term investment funds' ownership influence earnings management.

# Research conceptual framework

As seen in Figure 1, it is assumed that variables of information asymmetry and investment funds ownership may influence earnings management (dependent variable).

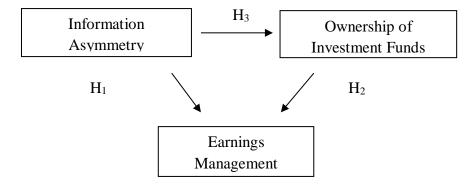


Figure 1: Research conceptual framework extracted from Yanhao dai (2013)



#### Research background and literature

Financial reporting are regarded as important information sources for economic decisions used by managers, investors, creditors, and other users for meeting information needs. Since information is not uniformly provided to the users, it leads to information asymmetry between managers and investors. Information asymmetry refers to the situation where managers own more undisclosed information about the operation and firm's various aspects in the future. That is why managers benefit earnings management opportunity and incentive.

Earnings management occurs once management imposes own judgment in financial reporting and transaction structure such that it presents alternative reports of the company's performance to misinform some stakeholders. Earnings management is defined as deliberate reduction of profit level fluctuations such that the enterprise attains usual profit, and managers smooth the profit for several reasons.

#### Earnings management

There are different definitions of earnings management in accounting literature. To find a proper definition of earnings management, it is necessary to recognize the purpose and motivation of earnings management and its application.

Schipper (1989) explains earnings management as biased and predisposed financial reporting relying upon which managers deliberately and intentionally intervene in the financial decision making process to attain some benefits.

According to Degeorge et al (1999), earnings management is the profit artificial manipulation by management in order to achieve the expected profit level for some specific purposes.

Beathy (1994) defines earnings management as consciously decision making process relying upon accepted accounting principles to reach the reporting profit to the expected level (Kashanipour, 2010).

#### *Information asymmetry*

The theory of information asymmetry is a critical and challenging issue in financial accounting, which frequently occurs in stock exchange. William. R. Scot, in 'financial accounting theory', clarifies information asymmetry as the information advantage of some parties over others in a business transaction. He believes that information asymmetry may lead to failure in market performance.

Information asymmetry phenomenon originates from where investors adopt financial decisions based on the information provided by the firm's management. Indeed, there is a conflict of interest between information users and information suppliers. In the present research, information asymmetry is considered as independent variable measured through special risk standard deviation. According to the theory, Dirkness (1991) and Cong Fu (2005), for each company per year, estimated market model recession; next, standard



deviation of the estimated difference between actual returns and natural returns was obtained using market model. It was used as information asymmetry representative.

#### Institutional investors

Institutional investors referred to the organizations and institutions holding major shares of a company such as investment institutions, banks, public enterprises, etc. Hasas yegane, Moradi and Eskandar (2008) exhibited that institutional investors are active observers of adopted decisions and approaches on behalf of management; further, they are also able to punish the mangers against their benefits.

# *Investment funds*

Mutual funds are one of the financial intermediaries and institutions acquire some funds through permanent selling public investment unit, and professionally invest them in several combinations of stock exchange including stock, bonds, short-term money market instruments, and other assets regarding the fund purpose. Combined assets of mutual funds are known as the fund portfolio. Buyers of investment funds units acquire some portion of the fund securities portfolio ownership in return of their share. Each fund investment unit indicates investors' ownership proportion in the fund assets and asset revenue. According to Islamic Republic of Iran Securities Market law, investment fund is "a financial institution mainly serves in investing on securities where the owners share the profit and loss in their investment."

## Research background

Yang (2005) investigated the relationship between precise information and earnings management using customer-institution model indicating that information prediction may decline information asymmetry between managers and business owners. Managers encounter another cost for consciously prediction of inaccurate information such that mangers' predicted information can decrease the probability of earnings management.

Hunton et al (2006) experimentally studied that whether higher transparency reduces earnings management. A study, containing 62 professional financial managers and faculty members, analyzed the effect of financial reporting transparency on increased current profit and decreased earnings management efforts. They found out that financial reporting transparency significantly adjusts earnings management rather than complete removal. Their findings were consistent with managers' beliefs indicating that when disclosure procedures are less transparent, earnings management may lead to improved share price with no harm to the financial reporting credit. While, financial statements are more transparent, earnings management may affect integrity, accuracy, and credibility of financial reporting.

Jo and Kim (2007) examined the relationship between calling clear information and earnings management, and the effect of this relationship on performance using a sample of SEO. They inferred that less transparent information may cause less information

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difficulties leading to lower earnings management and larger efficiency. In other word, earnings management increases by increasing the level of information asymmetry.

Bhattacharya et al (2008) studied the relationship between earning quality and information asymmetry in companies listed in New York Stock Exchange. They discovered that information asymmetry increases by lower earning quality. Information asymmetry causes risk of inappropriate selection for liquidity providers, which may result in reduced price quote and consequently decreased liquidity. On the other hand, companies with poor earning quality would experience larger information asymmetry at earning announcement.

Yanhao dai et al (2013), in a study, probed the effect of information asymmetry and investment funds ownership on firms' earnings management in China. Scholars estimated earnings management based on DD model by Dechow and *Dichev* model (2002); moreover, they defined special risk standard deviation as information asymmetry measurement. Yanhao dai et al, following Yan and Zhang, divided investment funds into two long-term and short-term classes in China; then, ratio of long-term to short-term investment assets was applied as the representative for the share of institutional investors.

The results revealed that lower information asymmetry improves earnings management behavior. Long-term investments are more regulatory than short-term investments significantly reduces management negative behavior, and enhances earnings quality. Moreover, regarding different styles of investment, and according to short- or long-term investment, long-term investment funds may regulate earnings management in case of low information asymmetry; hence, earnings quality increases. However, when information asymmetry goes further, the regulatory contribution of long-term investment funds seriously declines; whereas, short-term investments and earnings management are correlated leading to low earning quality. Thus, information systems in China and behavior of institutional investors for firm's management must be critically interested.

Mehrani, Karami, Moradi, and Eskandar (2010) reviewed the relationship between institutional investors and the quality of financial reporting. Regarding possession of major shares of the companies, institutional owners benefit considerable authority and can influence accounting and financial reporting procedures. Financial statements are the core of financial reporting process. Investors focus on financial statements, and more importantly, income statements (net income value). The present research has been conducted to find evidences of the regulatory role of institutional investors that whether institutional ownership influences the reported earnings quality. Earnings quality was measured through a multidimensional method i.e. to measure earnings quality, four regression models were fitted, which estimate earnings various dimensions (earnings information content, earnings predictability, earnings accruals, earnings timely report). The results implied inconsistent (contradictory) relationships between institutional investors and earnings quality. In a better word, from earnings predictability perspective (dimension), institutional investors (institutional investors concentration) showed a negative (positive) relationship with earnings quality; while, institutional investors exhibited a negative relationship with reporting lag. This suggests that earnings quality is increased by higher level of institutional investors. It is worth to notify that the research International Journal of Management, Accounting and Economics Vol. 5, No. 7, July, 2018 ISSN 2383-2126 (Online)

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showed no significant relationship between institutional investors (institutional investors concentration) and earnings quality using the criteria of earnings information content and earnings accrual items.

Kazemi and Mohammad nezhad (2011) scrutinized the relationship between institutional ownership with information asymmetry and corporate financial performance. The purpose of this research was studying the effect of ownership structure on information asymmetry and financial performance. In other word, they investigated the extent and amount of how institutional investors influence financial performance and informational asymmetry to see that whether the relationship is enhanced through investors' stronger evaluation and regulatory motivations. To test research hypotheses, 60 companies listed in Tehran Stock Exchange have been studied within 2005-2009 as research sample. This was a quasi-experimental study due to some intervening variables and according to prior data analysis. Further, it was also an applied study; and a correlation study in term of purpose. Data were analyzed using multivariate linear regression analysis using pooled data of cross-sectional and time series data through Eviews. Research findings show that there is a significant negative relationship between institutional shareholders ownership and information asymmetry i.e. the more institutional ownership is, the higher information is provided to the corresponding individuals in the market. In other word, increased institutional ownership causes information asymmetry drops. This leads to market efficiency in term of information. The research also maintained the relationship between institutional shareholders ownership and return on equity implying a positive relationship with corporate financial performance. Therefore, it can be argued that increased number of institutional shareholders in corporate ownership composition would result in shared regulation and control among shareholders diminishing conflict of interest and increasing profitability.

Avesta (2011), in a paper named 'studying the relationship between ownership structure and earnings management', wrote the purpose of this research is to study the corporate ownership structure on earnings management style. As prior studies have ignored the effect of corporate governance, the study classified ownership structure into four categories of institutional, corporate, management, and external ownership. External ownership was excluded as there was no external investors' ownership found in research sample. A hypothesis was formulated for each ownership class and its effect on earnings management was tested. Research hypotheses were examined using multivariate linear regression analysis. Research statistical population included companies listed in Tehran Stock Exchange in 2004-2008. Research samples were 95 companies. Research hypotheses were tested using correlation test and multivariate cross-sectional regression analysis. The results uncovered that there is a reverse significant relationship between institutional ownership and managerial ownership with earnings management; whereas, there is a direct significant relationship between corporate ownership and earnings management.

Sarbandi farahani, Mehdi, and Salehiyan (2012) explained the relationship between ownership concentration and information asymmetry in companies listed in Tehran Stock Exchange. Research population included all companies listed in Tehran Stock Exchange within the time period of 2005-2009. Research samples were 74 companies. This is an



applied study in term of purpose, and a descriptive-correlation study respecting research methodology. The purpose of the research is to study the relationship between ownership concentration (independent variable) and information asymmetry (dependent variable) through using a linear regression analysis model. Research instrumentation included financial statements, explanatory notes, as well as financial reporting of understudied corporations, which gathered research data through Rah Avard Novin Software and Tehran Securities web page using Excel. Finally, research data were analyzed through SPSS.

The results showed that there is a significant relationship between ownership structure and information asymmetry. Corporate governance mechanisms influence data disclosure by the corporate for shareholders. If the board more effectively supervised management, the quality of the corporate disclosure would decline information asymmetry, which results in less earnings management.

# Research methodology

The present research is an applied study in term of purpose in which research hypotheses are tested using real data and statistical methods. It is a descriptive-correlation study in term of research methodology. Data were collected using two library and field study methods. Data for research theoretical background and literature were collected by library method using books, national and international thesis, and papers. Other part of required data related to the variables was collected through field study using Tehran Stock Exchange databases and online software. Collected data were inserted into Excel as data files. Data were analyzed using Eviews. Research statistical population included all investment funds in Securities exchange provided that were accessible from 2012-2016 with no change in financial period. According to the aforementioned and systematic deletion method, 22 of 129 investment funds were selected as research sample as shown in Annex A.

#### **Data analysis**

Data descriptive statistics

Table 1. presents descriptive statistic of research variables within understudied period. Descriptive statistic of research variables measured using funds data within testing period (2012-2016) included mean, median, standard deviation, skew coefficient, kurtosis, maximum and minimum.



Table 1: Descriptive statistic of research variables

Variables		Mean	Median	Standard deviation	Skewness	Kurtosis	Minimum	Maximum
							0.008	0.515
Earnings management	DD	0.265	0.281	0.141	-0.068	-1.168	Sina	Gostaresh Fardaye Iranian
							0.005	0.514
Information asymmetry	SD	0.270	0.275	0.143	-0.14	-0.965	Pars	Ganjineh Refah
Short-term investment funds	ST_IF	0.07	0.069	0.026	-0.041	-1.318	0.027 Saba	0.112 Dey Ashna
Long-term investment funds	LT_IF	0.354	0.317	0.221	0.124	-1.222	0.004 Pars	0.726 Nouandishan
						-1.701	0.00	1.00
Equity book to market value ratio	Duality	0.364	0.00	0.483	0.575		Sina	Ganjineh
The largest shareholder	Top1	0.246	0.272	0.154	-0.064	-1.279	0.014	0.518
equity	торт	0.240	0.272	0.154	-0.004		Saba	Dey Ashna
Board of independent	Out ratio	0.258	0.254	0.159	0.006	-1.322	0.007	0.522
directors ratio	Out fatio	0.236	0.234	0.139	0.000	-1.322	Pars	Isatis
All share ratio of the							0.015	0.522
largest shareholders from 2 <sup>nd</sup> to 10 <sup>th</sup>	Top2-10	0.281	0.283	0.149	-0.077	-1.147	Saba	Saba
Total share of five	CR-5	0.248	0.239	0.142	0.138	-1.075	0.005	0.516
shareholders	CK-3	0.240	0.239	0.142	0.136	-1.073	Aghigh	Industry and
Public investment	SOE	0.273	0.293	0.167	-0.063	-1.435	0.010	0.523
funds	DOL	0.273	0.273	0.107	0.003	1.133	Mehr	Eghtesad
Accepted audit	Audit	0.250	0.255	0.141	0.104	-1.128	0.016	0.518
reporting		0.200					Ganjineh	Mehr Shariat
Audit institution size  Fund size	Audit	0.262	0.273	0.149 1.898	-0.173	-1.169	0.017	0.518
							Sina	Naghshe
							11.115	16.495 Pars
Market to book value ratio	Ln MB 2	2.294	2.291	0.697	-0.101	-1.176	Amin 1.034	3.491
							Sina	
	over To 4.7			1.014	-0.019	-1.256	3.03	Ganiineh 6.461
Financial turnover		4.749	4.804				Kavan	Aghigh

Skewness is one of the critical distribution factors. It is the factor of data symmetry representing distribution inequality over a certain factor (mean ratio). As it can be seen, skewness and kurtosis of research variables were often low indicating symmetry of



research variables and normal distribution (one of the main classic hypothesis that regression can be used in case of normality).

## Inferential Statistics

## Research reliability test

At this section, reliability of research variables is presented. The reliability was verified using Im, Pesaran, and Shin (1997) test as shown in Table 2.

Variable		W-stat	p-value
Earnings management	DD	112.567	0.000
Information asymmetry	SD	33.832	0.009
Short-term investment fund	ST_IF	59.543	0.0001
Long-term investment fund	LT_IF	21.003	0.0015
Equity book to market value ratio	Duality	21.809	0.000
The largest shareholder equity	Top1	8.534	0.026
Board of independent directors ratio	Out ratio	6.128	0.043
All share ratio of the largest shareholders from 2 <sup>nd</sup> to 10 <sup>th</sup>	Top2-10	14.732	0.017
Total share of five shareholders	CR-5	78.121	0.0087
Public investment funds	SOE	45.378	0.0094
Accepted audit reporting	Audit	56.298	0.0067
Audit institution size	Top Audit	29.121	0.013
Fund size	Ln Size	42.656	0.016
Market to book value ratio	Ln MB	59.004	0.0048
Financial turnover	То	20.886	0.023

Table 2: Im, Pesaran, and Shin (IPS) test

According to the results of IPS test (Table 2) and regarding P value is smaller than 0.05 for all variables; thus, the research variables were stable during understudied period. Hence, IPS test results demonstrated that the variables' mean, variance, and covariance were constant over different years. Therefore, using the variables in the model may cause no pseudo regression.

Research hypotheses test result

## Testing first hypothesis

**H**<sub>1</sub>: Information asymmetry influences earnings management.

As mentioned in the third section, the research used regression model to examine the first hypothesis as follows:

$$\Delta DD_eq_{i,t} = \beta_0 + \beta_1 \Delta SD_{i,t} + \beta_2 Duality_{i,t} + \beta_3 Top1_{i,t} + \beta_4 Out_ratio_{i,t} + \beta_5 CR-5_{i,t} + \beta_6 SOE_{i,t} + \beta_7 Audit_{i,t} + \beta_8 Top_{i,t} + \beta_9 Ln_{i,t} Size_{i,t} + \beta_9 Ln_{i,t} + \beta_9 Ln_{$$



Table 3: Results of regression equation fitting

Variable		Coefficient	Coefficient value	t-statistic	Sig. level
Constant		$\beta_0$	1.522	2.873	0.004
Change in	$\Delta SD$	$\beta_1$	0.412	1.231	0.208
Market to book value ratio	Duality	$\mathrm{B}_2$	-1.156	-3.111	0.028
The largest shareholder	Top1	$\mathbf{B}_3$	0.843	2.909	0.031
Board of	Out_ratio	$B_4$	0.743	2.921	0.016
All share ratio	Top2-10	$\beta_5$	0.911	2.129	0.041
Total share of	CR-5	$\beta_6$	1.121	3.273	0.0027
Public	SOE	β 7	1.561	3.154	0.002
Accepted audit	Audit	$\beta_8$	1.421	2.381	0.018
Audit	Top	β9	1.521	2.619	0.031
Fund size	Ln Size	${ m B}_{10}$	0.669	2.854	0.022
Market to book value ratio	Ln MB	B <sub>11</sub>	0.445	2.232	0.048
Financial	То	B <sub>12</sub>	0.334	2.887	0.028
Coefficint of determination		0.428	F statistic		14.765
Modified Coefficient of		0.381	P-value (signif	0.000	
determination		0.361	Durbin-Watson	2.018	

Following regression assumptions were tested, the aforementioned regression equation fitting results are presented in Table 3. F-statistic value (14.765) also indicates the regression model significance. As shown in the lower part of Table 4.3, coefficient of determination and modified coefficient of determination of the model are 42.8% and 38.1%, respectively. Thus, it is concluded that in the aforementioned regression equation, only about 38.1% of changes in dependent variables of understudied funds are explained by independent and control variables. Positive (negative) values, in this table, of coefficient column show direct (reverse) effect of each variable on the earnings management fund changes.

According to Table 3, significance level of information asymmetry is more than significance level in the present research (5%). In addition, absolute value of t-statistic of research variables is smaller than t-statistic with the same degree of freedom. Thus,  $H_0$  is maintained at the confidence level 95%; while,  $H_1$  indicating the effect of information asymmetry on earnings management is rejected.

## Testing the second hypothesis

 $\mathbf{H}_2$ : Classifying investment funds into short- and long-term investment funds may influence earnings management.



 $\Delta DD_eq$  i,t = $\beta 0 + \beta 1$  LT\_IF i,t +  $\beta$   $\Upsilon$  ST\_IF i,t +  $\beta$   $\Upsilon$  Duality i,t+  $\beta$   $\varepsilon$  Top1 i,t +  $\beta$   $\varphi$  Out\_ratio i,t +  $\beta$   $\Upsilon$  CR-5 i,t +  $\beta$   $\Upsilon$  SOE i,t +  $\beta$   $\Upsilon$  Audit i,t +  $\beta$   $\Upsilon$  Top Audit i,t +  $\beta$   $\Upsilon$  Ln Size i,t +  $\beta$   $\Upsilon$  Ln MB i,t +  $\beta$   $\Upsilon$  To i,t +  $\varepsilon$  i,t

According to Table 4, significance level (sig) of short-term and long-term investment funds variables is smaller than the significance level (5%). In addition, the variables t-statistic absolute value obtained less than the table t-statistic at the same degree of freedom. Thus,  $H_0$  is rejected at 95% and  $H_1$  referring the effect of short- and long-term investment funds on earnings management is maintained.

Table 4: Results of regression equation fitting

Variable		Variable coefficient	Coefficient value	t-statistic	Significance level
Constant		$eta_0$	-0.651	-0.223	0.823
Short-term investment funds	ST_IF <sub>i,t</sub>	$\beta_1$	1.709	2.451	0.042
Long-term investment funds	LT_IF <sub>i,t</sub>	βτ	-0.922	-3.711	0.001
Equity market to book value ratio	Duality	β۳	1.034	3.073	0.013
The largest shareholder equity	Top1	ß*	1.081	3.838	0.0017
Board of independent directors ratio	Out ratio	β 5	0.631	2.388	0.041
All share ratio of the largest shareholders from 2 <sup>nd</sup> to 10 <sup>th</sup>	Top2-10	β6	0.753	2.141	0.048
Total share of five shareholders	CR-5	β7	1.894	2.601	0.031
Public investment funds	SOE	β8	0.711	0.671	0.541
Accepted audit reporting	Audit	β9	0.967	0.576	0.121
Audit institution size	Top Audit	β1.	1.451	6.1032	0.000
Fund size	Ln Size	βιι	3.712	2.871	0.004
Market to book value ratio	I In MR		0.268	2.342	0.0075
Financial turnover	То	βιτ	0.854	3.109	0.0097
Coefficient of determination		0.491	F-statistic		14.765
Modified Coefficient of		0.447	P value (signifi	0.000	
determination	n	0,	Durbin-Watson	2.134	



# Testing the third hypothesis

**H<sub>3</sub>:** Reduced information asymmetry and long-term investment fund ownership may have larger effect on earnings management.

According to Table 4.3, significance level (sig) of change in information asymmetry variable is larger than significance level in the present research (5%); moreover, absolute value of t-statistic of the variables is smaller than the t-statistic value at the same degree of freedom. Thus, H<sub>0</sub> is maintained at 95%; while, H<sub>1</sub> referring to the effect of information asymmetry on earnings management would be rejected. On the other side, as seen in Table 4.4, significance level (sig) of short- and long-term investment funds variables are larger than the research significance level (5%); further, the t-statistic absolute value of the variables is obtained less than the t-statistic of the table at the similar degree of freedom. Therefore, H<sub>0</sub> is maintained at 95% and H<sub>1</sub> indicating the effect of classifying investment funds into long- and short-term investment funds on earnings management would be maintained. Thus, research third hypothesis referring to the "reduced information asymmetry and long-term investment funds ownership may have larger effect on earnings management" is rejected.

#### **Conclusion and recommendations**

Corporations activities in the current complex context and the need to recognize upcoming risks are of significant factors of achievement of which the issue of strategic risks (potential powers that may imbalance strategy system; hence, negatively influence corporate value) as well as uncertain investment environment must be seriously and considerably interested (Fertukzade and Navabi, 2009).

Earnings management is a consciously and intentionally measure and initiative to reduce changes in the reported or predicted earnings fluctuations using accounting techniques in the generally accepted accounting principles. The theory of lack of consistency principle indicates that high fluctuations of corporate earnings may enhance corporate investment risk, which effectively influences of the corporate share market value. Indeed, earnings management in stock corporations would lead to higher satisfaction for shareholders due to consistent earnings. This reducing investment risk in the firms may also affect the companies' stock value. On the other side, the companies with smoother earnings are made to use accounting various selection approaches; hence, they have to disclose the issue (Abdal Mahdi Ansari and Khajavi, 2011).

The present research used pooled data. Hence, piloting the prototype, the proper regression fitting model (pooled data or panel with constant and random effects) was obtained using Hausman and Chaw statistic. Next, the variables reliability was analyzed using Im, Pesaran, and Shin statistic. Then, for the second run, regression classic model including variables' normal distribution, error distribution independence, errors normal distribution, heteroscedasticity, as well as independent variables independence has been studied. And finally, regarding the model significance and significance of each coefficient, the results demonstrated that:



- Information asymmetry significantly influences earnings management.
- Classifying investment funds into short- and long-term investment funds significantly influences earnings management such that short-term investment funds may show direct effect; while, long-term investment may have reverse effect on earnings management.
- Reduced information asymmetry and long-term investment funds ownership may have no significant effect on earnings management.

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