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### Studying effect of income on the Capital Cost of Listed Companies in Tehran Stock Exchange

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#### ABSTRACT

The purpose of this study was to investigate the effect of earnings management on cost of equity capital is based on comparative approach of high profits and low earnings quality companies in Tehran Stock Exchange for purposes data of 50 Bshd.bh firms in Tehran Stock Exchange for use is. To investigate the relationships between variables in the regression analysis and the combined effect of earnings management on the capital cost of the test dummy variable. Based on these results, it can be concluded that the quality of earnings management companies listed in Tehran stock exchange, the cost of equity capital is reduced. These results suggest that earnings management in reducing or increasing the cost of equity capital of the company is a significant factor.

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### INTRODUCTION

Development of financial markets creates conditions that more research in the field of activities and corporate performance, return on equity and the activity and financial issues done. Its relevance and interest and financing costs of such important issues are in the fields of accounting and finance. Investors' attention to the need for further study of this concept has created interest categories. While the administrators are concerned with enhancing and improving the performance of various stock market prices, a lot of the incentive by the manipulation of the current Income over exponential or profits and of the earnings management can be next. Reported earnings of the current period can be manipulated (earnings management). Administrators can initially reported earnings through discretionary accruals are based on generally accepted accounting principles and are allowed; manipulate. Earnings management through discretionary accruals (AEM), usually at the end of the accounting period when the actual operating activities were completed more happens. Until these items directly affect the amount of accounting obligations have a direct impact on cash flow. He who is causing the reported earnings managers can manipulate the distortion of the actual activity. In particular, they can change the time and the actual activities such as production, sale, investment and financing during the accounting period and other methods. For example, the reported profit on a temporary basis can speed up the production schedule through sale or otherwise identified to reduce costs and to postpone the time to identify them, to rise. According to the Chudelli (2006), these activities are considered a deviation from normal activities and operational business units are identified as of real earnings management. Unlike (AEM); (REM) have a direct impact on future cash flows that are very difficult to understand for most stakeholders and the issues that fewer auditors, managers and other stakeholders to analyze and address.

The theory has been put forward as to which outside investors demand a high degree of efficiency with a certain level of profit and cash flows are projected. We anticipate that there is a positive relationship between REM and the cost of capital because it increases the expectations of investors about the company's profitability and cash flows.

Development of financial markets, prosperity and increasing investment in the securities markets and the separation of ownership from management in general and motivate companies to party more investors to buy shares of companies in this market instruments earnings management for sometimes causing employing transformation results actual performance and cosmetic companies reported earnings to shareholders and

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stakeholders that it will mislead them, and ultimately to the detriment of the stakeholders and society. For companies with less variation and extension (clearer), providing a positive commitment to reduce debt, while firms with relatively more diversity, the effect is positive debt. The final increase in debt provides an incentive for management to manipulate earnings, and diversity (development activities), the main requirement for the implementation of this work provides accounting and in the group of companies active, voluntary commitments managed to raise enough money and lenders impose controls on them. Indicates a negative effect on revenue increase debt obligations is optional. Apart from the issues that affect their earnings management, our main question in this study is whether the positive relationship between earnings management and outcome capital cost of the management of opportunistic. At the international level research AEM Effect on cost of capital, but the capital cost has been paid to the influence of REM. main research topic due to the lack of significant research in the field of general interest and REM impact on the cost of capital, with emphasis on the.

In this study, questions have arisen about the items that real earnings management (REM) and its impact on the cost of capital is put under scrutiny and scrutiny and to address this issue we factor is REM do Key investment decisions to allocate resources to them. Our goal is to check whether the intensity of REM increase the cost of capital or not?

#### *Research Literature:*

##### *Profit Management:*

Earnings management occur when managers of financial reporting and structuring transactions to alter financial reports of judgment used to mislead the economic performance of some stakeholders have agreed upon certain or the results of accounting numbers conjunctives reports have in the efficacy.

##### *Voluntary and involuntary commitments:*

Entirely optional and non-discretionary accruals divided into two parts. Discretionary accruals are those who are in possession of Management, the Director may, where appropriate, use their own judgment more or less show. In other words, management can alter their own free will versus non-discretionary accruals are the ones who control the manager and the manager was not to change them.

##### *Cost of Capital:*

The minimum rate of return is achieved, it is necessary to maintain the company's market value. Cost of capital as a key factor in decisions related to investment, capital budgeting, working capital management, optimize the structure of financial assistance to help measure the performance and the value of the company by discounting the cash flows under consideration takes. Capital costs are defined as costs arising of all investments made in an enterprise. In another definition of capital cost is the opportunity cost of key investments made to a corporation by the shareholders and creditors of the company's management has made in the allocation of resources.

Chung *et al.* Ramian negative relationship between debt and obligations Authorities have shown an increase in income, suggesting that managers in firms with financial leverage may be confronted with the controls on the part of lenders and earnings management for problem.

Dechow & Dichow [6] stated that the problem was due to the valuation of liabilities is provided to managers. They show that firms that have higher cash flows are variable error estimates, accruals and earnings volatility, and speculate that this commitment is true for estimates, accruals is due to management.

Dechow *et al.* [7] found in a study by the discovery of earnings management model based on accruals, earnings management evaluated. In their study to investigate the models Haley, Jones, at Angelo, and industry-adjusted Jones, researcher says that modified Jones model for detecting earnings management is appropriate and they concluded that the sum of earnings management through discretionary accruals and the market price of shares There is.

Defondet *al.* [8] found that when companies take responsibility for breaches of obligations to reduce and improve the bargaining power of firms in transactions Moreover, debt management, interest income is positively associated with increased could be strengthened.

The research results in local papers and theses that REM impact on the cost of capital is less studied. But do some research about earnings management as follows:

Arab Mazad Yazdi, Mashayekhi and Rafiei [2] in a study conducted by the information content of cash flows and capital market's commitment to the resumption concluded that the benefit to operating cash flow information content, and it highlights the content of the information items step commitment to operational processes and commitment, reflected in the fundamental value of a company increases the usefulness Souder time information as well as non-discretionary accruals, discretionary accruals than most.

Noravesh, Sepasi and Nikbakht [3] in a review of the earnings management of listed companies in Tehran Stock Exchange concluded that corporate managers of the company used the discretionary accruals minimizing,

and managers' tax acts of earnings management and earnings management incentives in the form of large companies and many of their debt by the directors of more.

Mashayekhi & Mehrani [1] in their study of the role of discretionary accruals to manage earnings in Tehran Stock Exchange listed companies have come to the conclusion that the companies listed in Tehran Stock Exchange, earnings management is applied. Smelters in the management while reducing the cash flow from operations, which reflects the poor performance of the business unit, has attempted to compensate for this by increasing discretionary accruals have increased profits.

*Objectives, research questions and hypotheses:*

*Objectives of this study are as follows:*

1. Effect of discretionary accruals(AEM)The cost of capital
2. Effect of real earnings management(REM)The cost of capital

This research is done in the Tehran Stock Exchange and is used by investors, market participants and other relevant organizations.

The research questions are as follows:

1. Is the cost of capital affect earnings management?
2. Do discretionary accruals (AEM) have an impact on the cost of capital?
3. Will the real benefit management (REM) affect the cost of capital?
4. Is the impact of earnings management on the capital cost of various industries studied, the difference is?

Given assumptions are as follows:

1. Earnings management is the impact on the cost of capital.
2. Discretionary accruals (AEM) have an impact on the cost of capital.
3. Real earnings management (REM) has an impact on the cost of capital.
4. Studied the effect of earnings management on cost of capital for different industries, different.

*Research Methodology:*

The methods used in this research, including a study of documents and library. The nature and objectives of the research method, is applied. Applied research, research that uses stem Research results, to improve and integrity in the practices, tools and equipment, products, structures and patterns can be used for research communities. The methodology of the research method, based on statistical analysis (regression panel data) with software Eviews is used.

*Conceptual model and research variables :*

We study the model of Fama and Mac Beth and adjusted Heil, Jones and Cohen model in order to measure the cost of capital, AEM) accruals) and REM have used or the real earnings management .

*The research model is as follows:*

$$COE_{it} = \alpha_0 + \beta_1 RankAEM_{it} + \beta_2 RankREM_{it} + \beta_3 LNSIZE_{it} + \beta_4 LVGit + \epsilon_i$$

In which:

*Dependent variable:*

Cost of capital (COE<sub>it</sub>) is equal to the average cost of financing company

*Independent variable:*

Earnings management representative optional (it RankAEM): In this study we use the absoluteDAC (discretionary accruals) as a proxy for earnings management's discretionary use.

Real earnings management representative (RankREM<sub>it</sub>): In this study, we use the average values of the cash flows related to unusual, abnormal production costs and general expenses abnormal REM or as a representative of the actual use of earnings management.

*Financial Leverage (LVGit): is equal to total debt divided by total equity:*

Sized enterprises (LNSIZE<sub>it</sub>): the natural logarithm of the company's assets as a control variable in the formula makes clear.

iε: Error

*Research methodology, statistical population, sample size, and analysis tools:*

In this study to measure earnings management index, the absolute value of discretionary accruals are used, because Wartfield *et al.* documented that the absolute value of accruals, while the focus of research on the earnings level is more appropriate is.

*Discretionary accruals (Discretionary Accruals):*

The study discretionary accruals and colleagues Dechow way the modified Jones model is well calculated. In this way, the total accruals to one of the following forms can be obtained by:

$$1) TAC_{it} = EBX_{it} - CFO_{it}$$

$$2) TAC_{it} = (\Delta CA_{it} - \Delta Cash_{it} - \Delta CL_{it} - \Delta STD_{it}) - Dep_{it}$$

That the relations (1) and (2):

TAC<sub>it</sub>: Total accruals firm I in year t

EBX<sub>it</sub>: Net Income before Extraordinary Items firm i in year t

CFO<sub>it</sub>: funds, cash flow from operations of firm I in year t

CA<sub>it</sub> Δ: Change in current assets of firm i in year t

CL<sub>it</sub> Δ: Change in current liabilities of firm i in year t

Cash<sub>it</sub> Δ: Change in cash and cash equivalent of firm i in year t

STD<sub>it</sub> Δ: Change in current portion of long-term debt of firm i in year t

Dep<sub>it</sub>: depreciation of fixed assets of firm i in year t and invisible

Then the model of total accruals, the change in sales, the cost of fixed assets are to be fitted.

$$3) TAC_{it} / A_{it-1} = \alpha_1 [1 / A_{it-1}] + \alpha_2 [\Delta sales_{it} / A_{it-1}] + \alpha_3 [PPE_{it} / A_{it-1}] + \epsilon_{it}$$

In this regard:

Sales<sub>it</sub> Δ: Change in net sales (revenue) in year t

PPE<sub>it</sub>: gross property, plant and equipment in year t for firm i

A<sub>it-1</sub>: total assets for firm i at the end of the previous year

ε<sub>it</sub>: error model in year t

α<sub>1</sub>, α<sub>2</sub>, α<sub>3</sub>: Jones model coefficients (estimated factors for company i)

Non-discretionary accruals (Non): Nyzaz the following equation is obtained:

$$4) NDAC_{it} = \alpha_1 [1 / A_{it-1}] + \alpha_2 [\Delta sales_{it} - \Delta REC_{it} / A_{it-1}] + \alpha_3 [PPE_{it} / A_{it-1}]$$

In this regard:

REC Δ: Change in accounts receivable at year t for firm i

α<sub>1</sub>, α<sub>2</sub>, α<sub>3</sub>: the least squares estimation of model (3) are obtained.

Discretionary accruals (DAC): calculated as follows:

$$DAC_{it} = TAC_{it} - NDAC_{it}$$

Real earnings management (REM) can be obtained from the following relationship:

$$CFO_{it} / A_{it-1} = \alpha_1 [1 / A_{it-1}] + \alpha_2 [sales_{it} / A_{it-1}] + \alpha_3 [\Delta sales_{it} / A_{it-1}] + \epsilon_{it}$$

In this regard:

CFO<sub>it</sub> / A<sub>it-1</sub>: abnormal cash flow of firm i in year t

$$Prod_{it} / A_{it-1} = \alpha_1 [1 / A_{it-1}] + \alpha_2 [sales_{it} / A_{it-1}] + \alpha_3 [\Delta sales_{it} / A_{it-1}] + \alpha_4 [\Delta sales_{it-1} / A_{it-1}] + \epsilon_{it}$$

In this regard:

Prod<sub>it</sub> / A<sub>it-1</sub>: unusual production cost of firm I in year t

$$DiscE_{it} / A_{it-1} = \alpha_1 [1 / A_{it-1}] + \alpha_2 [sales_{it-1} / A_{it-1}] + \epsilon_{it}$$

In this regard:

DiscE<sub>it</sub> / A<sub>it-1</sub>: Public expenditure unusual company in year t

Data for the study using the compact disc financial information provided by the Tehran Stock Exchange, which includes the annual financial statements and notes in PDF format along with an explanation of the financial statements, and the Tehran Stock Exchange was collected.

Data collected using Excel and then classify the variables of interest to test the research hypotheses were calculated based on the measurement methods mentioned.

Sampling for this study is the method of elimination. The study population includes companies listed in Tehran Stock Exchange is to select a sample of firms listed in Tehran Stock Exchange, considering the characteristics of the elected:

ü Because the study ranged from 2007 years to 2013 years by the end of 2006, the company should have accepted the Tehran Stock Exchange.

ü To eliminate possible seasonal fluctuations company should have a fiscal year end of March.

ü because of fluctuations caused by the closure of the financial year should change the stock symbol and research during the financial year suspension of trading no more than 3 months.

ü Because the profitability indicators used in research should not be losing company during the research period (net profit) are not operational loss.

ü Because the profitability indicators used in the study had a book value of net assets of the companies they are negative.

The methods used in this research, including a study of documents and library. The nature and objectives of the research method, is applied. Applied research, research that uses the results of basic research, to improve and integrity in the practices, tools and equipment, products, structures and patterns can be used for research communities. The methodology of the research method based on statistical analysis using software Eviews 7

technique using panel data and new results about the comparability of earnings management model that determines the relative explanatory power of their offers. Assumptions related to the first and second tests using multivariate regression models are. The third hypothesis test for the analysis of variance is performed and Kolmogorov - Smirnov (ks), was used to evaluate the normal distribution of variables. More studies discretionary accruals using ordinary least squares regression (OLS) at 95% with regard to the time series data for each company or data point was calculated. When we have our views as of any company, the more accurate the panel regression

#### The Findings:

Table1. Descriptive statistics for the firms in the sample offers. Working capital accruals compared the two groups' shows. For larger amounts of working capital accruals represents optionally further manipulation of accruals and earnings quality will be poor.

**Table1:** Descriptive statistics for the sample companies.

	Average	Middle	Standard deviation	At least	The maximum
Company Size	13.0469	12.8700	1.49115	9.860	18.195
Sales	0.8832	0.8122	0.45805	0.06	3.54
Net Income	0.09169	0.0694	0.137510	0.213 -	1.498
Accruals	0.10905 -	0.1114	0.17493	0.759 -	1.177
Discretionary working capital accruals	0.0962	0.0656	0.10550	0.000	1.12
Cash Flows	0.1115	0.0949	0.13215	12:38 -	0.70
Abnormal operating cash flow	0.0387	0.0116	0.4217	0.52	11:31

**Table 2:** Pearson correlation coefficients between independent variables to illustrate.

	ROE	DR	DIVIR	GROW	LNSMV	RETURN
ROE	1					
DR	-0.036	1				
DIVIR	0.036	0.032	1			
GROW	0.747	-0.013	0.170	1		
LNSMV	0.270	-0.175	0.070	0.410	1	
RETURN	0.369	0.122	0.087	0.350	0.381	1

In this study, we have to check in Tehran Stock Exchange profit companies must manage the number and percentage of companies that have taken advantage of the other companies regard. Excel index is used for this purpose. A company that has a value greater than or equal to them in the earnings management is conducted.

Table4shows the number and percentage of managed company

Descriptive statistics of variable quality research, some buildings:

Table 5shows the results of statistical variables.

**Table 3:** PearsonFis recommended Variables Research.

Independent variables	The mean	Deviation Criteria	Variance	Skewness	Strain	Coefficient Skewness	Coefficient Strain
Accrual of infrastructure support	.292	.475	0.226	-1.935	7.206	15.479	28.896
Cost of Capital	795.42	938.22	880261.030	1.448	5.575	11.867	22.903
Profit Management	5.746	0.618	0.382	1.123	1.753	9.111	7.130
The ratio of book value to market value	0.640	.608	.370	1.926	5.051	15.547	20.437
Debt ratio	.669	0.222	0.049	2.654	15.868	21.533	64.537

The tests related to the research,

The tests related to the research,

#### Chow test:

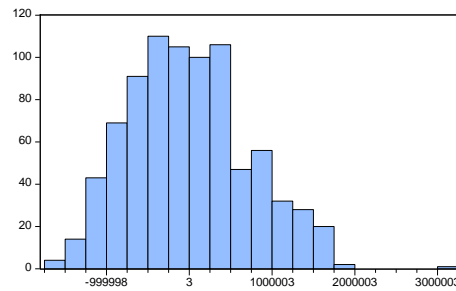
Before the panel data model is necessary to check the Chow test. According to the test results and the corresponding probability in Table 5is given, we can foiling that this model is a composite left (Gajrati, 1988).

**Table 4:** Chow test.

Name statistics	Value and	Possibility
Fisher statistic	0.597732	0.9977
When the test	61.278258	0.9835

Residual normality test sentences

In Figure (1), the quantity of statistics Jark- to (3.67) and the corresponding probability (0.25) with normal iodine Younger Tai residual sentences in the first model.



**Fig. 1:** Normal to be Distribution the sentences Waste.

*Yeshe R. Fuller test unit 12 in a 13:*

In the case of a single Fuller, the most appropriate test to check leg being. The One Fuller under the assumption of a zero  $p = 1$  this means that it is acceptable to have the head of the unit and the is based on this premise that the procedures in the production data without origin is based test for the occurrence of a single for a fuller variables and the results are shown in Table hearing:

**Table 5:** unit root test.

ow	Variable	Value and	Status	Critical value		
				1%	5%	10%
1	Accrual of infrastructure support	2.870638-	The Difference	3.447866-	2.869155-	2.570894-
2	Capital costs	8.944664-	The Difference	3.446567-	2.869155-	2.570588-
3	Profit Management	10.31524-	The Difference	3.446567-	2.868583-	2.570588-

**Table 6:** Model research.

Abbreviations and names of variables	Coefficient	SE	Statisticst	Significant level.
Constant coefficient	1.883079	0.894245	-2.105768	0.0363
Profit Management	0.000577	7.02905	8.22336	0.0000
High earnings quality	-0.000195	6.63905	-2.935662	0.0037
Accruals	0.323505	0.150439	2.15041	0.0326
Cost of Capital	0.0561705	0.197221	-2.848093	0.0048
first	0.235199	0.081754	2.87690	0.0044
Coefficient of determination	0.573019	The mean of the dependent variable		-0.028264
Determining factor correction	0.471795	Deviation of the dependent variable		0.439343
Standard deviation of the regression	0.319304	Sum of squared deviations of the Unexplained		23.65360
Fisher statistic	5.660960	Statistics Durbin-Watson		1.779610
Significant level.	0.000			

Based on the results of testing hypotheses, and testing of the F is shown that there is a significant relationship between the dependent and independent variables. Autocorrelation function may not work. Watson statistic camera is close to 2.

*Result Of Research Hypotheses:*

*The first hypothesis test result:*

The first hypothesis states that "earnings management has an impact on the cost of capital. With respect to earnings management in the regression coefficients R (-0.000195) and its associated probability (0.0037) indicates that the first hypothesis at 95% is acceptable used. In other words, with increasing earnings management companies listed in Tehran Stock Exchange, the company's cost of capital increases. This result suggests that firms manage earnings in increasing or decreasing the capital cost is a significant factor in the changes in management companies to manage costs and benefits can be brought under control.

*The second hypothesis test result:*

The second hypothesis states that "the cost of equity interests in companies that have a low quality, most companies have the benefit of their quality."When profits are low quality, profit index in the regression model will be zero, and therefore the cost of equity in these companies will be higher than companies with earnings

quality. In other words, the quality of earnings increases the confidence of investors to forecast future cash flows are expected to come down to the risk of investment to increase the equity the cost of the quality of earnings, can be reduced.

**Table 8:** The hypothesis.

Number theory	As hypothesized	Thus the hypothesis
First	Earnings management is the impact on the cost of capital. 2. Discretionary accruals (AEM) has an impact on the cost of capital. 3. Real earnings management (REM) has an impact on the cost of capital. 4. Studied the effect of earnings management on cost of capital for different industries, different	Confirmed
Second	Discretionary accruals (AEM) have an impact on the cost of capital. 4. Studied the effect of earnings management on cost of capital for different industries, different	Confirmed
Third	Real earnings management (REM) has an impact on the cost of capital.	Confirmed
Fourth	Studied the effect of earnings management on cost of capital for different industries, different	Confirmed

#### *Analysis And Conclusion:*

Companies manage risk and lower the quality of their profits to attract investors to the fund. So suppliers of companies looking to invest in companies that meet the quality and cost benefits are more advantageous. The introduction of capital and financing for organizations and companies are easier to manage because a reasonable investor confidence to return to the desired now. In addition, companies that benefit the poor or inefficient management experience to attract investors higher returns than other firms should provide for them, so the rate of return from the perspective of investors and sponsors, and the fares Corporate capital increase see from the test four hypotheses presented in this study confirm the description.

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