

## Case Study

### **Investigating the Effect of Auditor Partner Rotation and Auditor Size and Tenure on Investors Expected Rate of Return**

#### **Abstract**

This research investigates the relationship of auditor size and tenure characteristics with investors expected rate of return. Gordon Model is used to measure investors expected rate of return (cost of equity). The utilized data have been extracted from the listed companies on Tehran Stock Exchange (TSE) over the years 2005-2009. To analyze the data and to test the hypotheses, the multivariate regression model and Data Panel have been employed. The obtained results from the test of research hypotheses indicate a positive and significant relationship between audit firm size and investors expected rate of return. In addition, the findings indicate a negative relationship between auditor tenure and investors expected rate of return but this relationship was not statistically significant.

**Key words:** audit quality, auditor partner rotation, audit firm size, auditor tenure, cost of equity

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## 36 **Introduction**

37 Availability of transparent and reliable financial information which is the product of a  
38 comprehensive and proper reporting system is considered one of the key elements for evaluation  
39 of a firm's situation and performance and decision making about investment in the firm. In every  
40 economic event, investors need reliable information for decision making. From viewpoint of  
41 investors, that type of information is regarded reliable if used by an independent organization for  
42 supervision on companies' reporting process and on the gravity center of this process, i.e.  
43 financial statements. An example of this type of independent organizations is audit firm. Audit  
44 creates added value for the reported financial statements, because it reports results of  
45 investigation on relevancy and reliability of the contents of the statements.

46 Considering the position and role of audit firms in decision making of the users, audit quality is  
47 the key factor for them in preparation of audit reports. Auditor as the detecting mechanism of  
48 important distortions can improve information quality and consequently in reducing investment  
49 risk and helping optimal extra-organizational decision makings. To sustain the business unit  
50 value, management should try to bring the expected return at least to the level of cost of capital.  
51 Also shareholders rely on financial statements in determining their expected rate of return. On  
52 the other hand, as is explained, reliability of financial statements will be made possible by audit.  
53 Thus, present research tries to find an answer to the question as whether audit quality  
54 characteristics results in reduction of cost of equity?

## 55 **Research literature and background**

### 56 **Audit role**

57 Audit plays three crucial roles: supervision on management actions (theory of supervision),  
58 creation of better informational environment (theory of information) and providing security for  
59 companies against risks (insurance theory). If audit operation lacks a desirable quality and is not  
60 able to properly determine reliability of the published information, at micro-economic level,  
61 many people lose their capitals and few people will earn immense profit. In addition, decrease of  
62 audit quality may be a threat to auditor's credit, reputation and requested commission fee and  
63 legitimacy of audit profession. In the Agency Theory, it is argued that audit helps reduce conflict

of interest between management and investors. Therefore, large audit firms have stronger motivation for protection of their independence and reputation. Hence, they apply reporting standards much better and quicker (Malone et al, 1993). Recently, the issue of managers' legal vulnerability has arisen which requires audit as a cover for the loss caused by it. Auditor and management of the business unit to be audited jointly and individually are responsible before interested third parties for the losses which arise from distorted financial statements. In other words, managers are interested in creating an insurance coverage through audit (Hamilton, 1975).

## **Auditor size**

In many cases, according to the theoretical principles, a large audit firm in terms of size enhances audit quality level. Larger audit firms provide higher quality audit services, because they are interested in obtaining greater reputation in the work market, and since the number of their clients is large, they are not concerned about losing them (De Angelo, 1981).

## **Partner rotation and audit firm**

Independent auditors play a valuable role in the capital market by reducing information risk through validating the financial statements published by public companies. The significance of this role of audit to a large extent depends on the nature of auditors' attestation. It is argued that auditor's long term relationship with the client may lead to nonchalance and failure of the auditor in fulfillment of one's attestation or certification role. Weakening of auditor's independence is itself a serious issue which has given rise to much concern. One solution suggested to resolve this concern is audit firms rotation (Sadjadi and Delfi, 2011). The issue of audit firms rotation is becoming more and more of interest with academic circles, members of accounting profession, auditors and the general public. In the beginning, only accountants and academicians discussed about the matter. However, after discovery of major frauds and financial scandals in such companies as Enron Corporation and World Com in recent years, auditors and auditing firms rotation has drawn attention of many governments and other institutions such as EU, American Association of Chartered Accountants, American Commission of Stock Exchange and Securities so as rotation impact on such parameters as auditor's independence and cost, and audit quality, competition and the capital market has turned into one of the crucial issues in recent years. Audit firms and auditors rotation is a two-way matter in nature. On the one side, rotation of audit firms and the auditor partners cuts off the long term relationship of the auditor with the client, regardless of the repeated audit processes in previous years and elimination of the auditor's unconscious inclination for the client gratification. On the other side, the rotation process of firms and partner auditor cuts off relationship of the auditor with the client as a result of which the client does not feel at his ease with the new auditor who does not inform the client if there is any problem (Hassas Yeganeh and Jafar-ol-Ilah, 2009). However, non-rotation of the auditor

improves his efficiency due to better understanding of information changes, replacement and classification learned from previous years. In fact, the proponents consider partner and auditing firm rotation a way for improvement of audit quality, since acquaintance and intimacy with the client prevents generation of novel views and ideas in the auditor, competition in the market and increase in number of rival firms and improvement of audit quality. However, in view of the opponents, these advantages have not been proved at large scale and are not able to cover the involved costs and risks (Sadjadi & Jafari, 2011). Chen et al (2004) and Flana (2006) believe that in the course of time the auditor get better knowledge of the client so as the auditor's ability increases in choosing suitable accounting and reporting procedure. Hence, long term relationship of the auditor with the client can improve audit quality. Considering the mentioned points, it can be concluded that the phenomenon rotation of audit firms and partner auditor is like a two edge blade so as it can both sustain independence and increase quality of audit services and undermine audit's very entity.

## **Audit quality and investors' expected rate of return**

Cost of capital is the minimum rate of return the firm has to obtain in order to secure investor's expected rate of return. If the expected rate of return is less than cost of capital, the business unit value will decrease. Therefore, for protection of the business unit value, it should try to bring expected rate of return at least to the level of cost of capital. Shareholders expected rate of return is influenced by information risk, and information risk in turn depends on personal information, public information and information transparency so as the less the information transparent is, the more the risk premium of ambiguity condition becomes and the higher the investors expected rate of return goes. Shareholders rely on financial statements for determining their expected rate of return. Reliability of the reported financial statements is of influence in estimation of shareholders expected rate of return. On the other hand, as has been explained, reliability of financial statements depends on auditing. In most recent researches at international level it has been demonstrated that investors' expected rate of return is affected by audit quality. Kharana and Raman (2004) demonstrated that largeness of audit firm significantly reduces cost of capital relative to the firms which have not been audited by large audit firms. Based on the information theory, it can be stated that auditors by carrying out audit operation create informational advantages which provide a basis for economic decision making. In other words, auditor as the mechanism detecting information distortion improve information quality and consequently reduce investment risk and facilitate optimal decision making. Thus, audit reduces informational risk for the users of financial statements which eventually results in reduction of investors expected rate of return.

Mansi et al (2004) in a research investigated the relationship of auditor's characteristics with cost of capital. Their findings indicated presence of a significant negative association between auditor's tenure and cost of capital. In other words, with increase of tenure duration cost of capital is reduced. Fernandez et al (2010) investigated relationship of audit quality characteristics and firm size with cost of equity. In this study, size of audit firm and auditor's expertise had been

considered as the criteria of audit quality. Results of their research indicated presence of negative and significant association of audit firm size, auditor's tenure and expertise in the industry with cost of equity.

In their research, Elitzur and Falk (1996) and Deis and Giroux (1992) reached the conclusion that audit quality is negatively influenced by the policy of auditor's compelled rotation. Also Ghosh and Moon (2005) concluded that audit quality gets improved with increase of auditor's tenure.

Palmrose (1988), Tendello and Venstraelen (2008) took the audit firms which were the members of 4 large audit organizations (previously known as 6 large audit firms and 8 large firms) as the large reputable audit firms and valued their audit works as high quality audits and presented them the benchmark and index of audit quality in their researches, since the 4 large audit firms in addition to their reputation acted successfully in increasing the quality, employees training and protecting their independence versus the clients as well as other crucial areas. Carcello and Nagy (2004) in a research titled "Firm Size, Auditor's Expertise and Fraudulent Financial Reporting" demonstrated that long term auditor tenure enhances auditor's knowledge and expertise in the respective client's industry and increases the level of audit quality.

In a study, Hassas Yegane and Azinfar (2010) investigated the relationship of audit quality and size of the audit firm in the period 2001 through to 2005. In this research, audit firms which were members of the Association of Chartered Accountants were classified as small audit firms and the audit organization due to large number of employees and longer precedence were classified as the large audit firms. Their findings indicate that there is a negative and significant relationship between size of the audit firm and audit quality. Nonahal Nahr et al (2010) investigated the relationship of auditor's quality and reliability of liability items during 2001-2007. In their study, for measurement of auditor's quality, they used two indices of the audit firm size and auditor tenure. In addition, in this research, audit organizations were regarded as the large audit firms in terms of size and other audit firms as the small audit firms. The criterion auditor tenure has been set for 5 years. Using multivariate linear regression analysis, their findings indicated that the companies audited by a higher quality auditor have had a greater stability and reliability coefficient compared to the companies audited by lower quality auditor.

Considering the research main question, two hypotheses are proposed as follows:

First hypothesis: there is a significant relationship between size of audit firm and investors expected rate of return

Second hypothesis: there is a significant relationship between audit firm tenure and investors expected rate of return

Third hypothesis: there is a significant relationship between the auditor partner tenure and investors' expected rate of return

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## 177 **Research methodology, statistical population and sample**

178 This research in terms of purpose is of applied type and in terms of nature is semi-experimental.  
 179 For data analysis and test of research hypothesis, multivariate regression equation has been used.  
 180 To carry out the research, using Tadbir and Rahavard-e-Novin softwares, the required  
 181 quantitative data and information have been extracted from financial statements and other  
 182 financial reports of the audited companies. The data after collection have been linked and  
 183 classified in the Excel Sheet and eventually using Eviews6 they have been analyzed.

184 The statistical population in this research includes the listed companies on TSE. Temporal  
 185 domain of the present research covers the years 2005-2009. However, given estimation of the  
 186 firms' expected growth rate in each year, using geometrical mean of operational profit, in sum,  
 187 the research data are for the time interval of 2000 up to 20-03-2010. For sampling, using  
 188 systematic elimination method the firms which met all the following conditions have been  
 189 selected as the sample:

- 190 1. For the sake of comparability, their fiscal period ends up to 2-03-2010.
- 191 2. The companies do not belong to the group of banks and financial institutes (investment  
192 companies, financial brokerage, holdings, and leasing companies)
- 193 3. The firms do not have a transaction suspension of more than two months from the date of  
194 their general ordinary meeting
- 195 4. The firm has not changed its line of activity or its fiscal year within the research temporal  
196 scope

197 By application of the above condition, from among 275 listed companies on TSE, 55 firms were  
 198 selected as the research statistical sample.

## 199 **Research variables**

### 200 *Independent variables and their operational definition*

201 In this research, audit quality characteristics have been considered as the independent variables.  
 202 The most important quantitative indicators for measurement of audit quality are audit quality,  
 203 audit firm size, audit institutes in membership of the Chartered Accountants Association and  
 204 auditor partner tenure. To measure the size of the audit firm, the audit firms in membership of  
 205 the Chartered Accountants Association have been considered as small audit firms and audit  
 206 organizations due to the large number of employees and longer precedence have been classified  
 207 as the large audit institutes. To measure the audit firm tenure, if an audit firm continuously and  
 208 more than 4 years has been the auditor of the client, the value of the audit firm tenure is defined  
 209 equal to 1 otherwise it will be considered equal to zero. In this research following the method of  
 210 Namazi et al (2011) the 4-year criterion has been taken as the good quality tenure. In addition, to

understand more about how audit firm tenure affects investors expected rate of return, tenure is divided into short term and long term states. For audit partner short term tenure, if duration of partner tenure is less than 3 year it set equal to 1 otherwise it is equal to zero. For audit partner long term tenure following the method of Neil et al (2008), if duration of the partner tenure is more than 6 years, it is considered equal to 1 otherwise equal to zero.

## Dependent variable and its operational definition

Investors expected rate of return is the dependent variable in this research. Investors expected rate of return is determined bases on cost of equity. The used model for calculation of equity is Gordon Growth Model. In this model, cost of equity is calculated using equation (1),

$$K_e = \frac{DPS_{t+1}}{P_t} + g \quad (1)$$

In relation (1),  $K_e$  is cost of equity,  $DPS_{t+1}$  expected rate of return in next year for each share. Considering that the past information is used, the firm's next year dividend is used.  $P_t$  is the first share price after holding shareholders ordinary meeting,  $g$  expected growth rate. Growth rate has been calculated using geometrical mean of operational profit over five previous years.

## Control variables

In this research, after fashion of Fernandez et al (2010), the effect of financial leverage variables, firm size and ratio of book-to-market value were controlled. To measure firm size, natural logarithm of equity market value in the end of year has been used, and for calculation of financial leverage, natural logarithm of debt ratio (total debt to total asset) has been used.

## Data analysis method

In this study, for test of research hypotheses, multivariate linear regression equations have been employed. In these equations, cost of equity is the dependent variable and firm size and audit partner tenure and rotation as the audit quality characteristics are the independent variables. To control the impact of risk factors, three control variables of ratio of book value to market value, financial leverage and firm size are introduced to regression equations. The used regression equations are presented in relations (2), (3) and (4).

$$COE_{it} = \beta_0 + \beta_1 AuditSize_{it} + \beta_2 Size_{it} + \beta_3 Lev_{it} + \beta_4 BM_{it} + \varepsilon_{it} \quad (2)$$

$$COE_{it} = \beta_0 + \beta_1 Tenure_{it} + \beta_2 TenureSmal_{it} + \beta_3 TenureL_{it} + \beta_4 Size_{it} + \beta_5 Lev_{it} + \beta_6 BM_{it} + \varepsilon_{it} \quad (3)$$

$$COE_{it} = \beta_0 + \beta_1 Partenure_{it} + \beta_2 Small.Partenure_{it} + \beta_3 Large.Partenure_{it} + \beta_4 Size_{it} + \beta_5 Lev_{it} + \beta_6 BM_{it} + \varepsilon_{it}$$

(4)

In which,  $COE_{it}$  is cost of equity,  $AuditSize_{it}$  audit firm size,  $Tenure_{it}$  auditor tenure.  $Large.Partenure_{it}$ ,  $Small.Partenure_{it}$ ,  $TenureLarge_{it}$ ,  $Partenure_{it}$  and  $TenureSmall_{it}$ ,  $BM_{it}$  is book-to-market value ratio,  $Size_{it}$  firm size and  $Lev_{it}$  firm financial leverage

## Results of research hypotheses statistical tests

The first hypothesis suggests a significant relationship between audit firm size and cost of equity. As is shown in table 2, coefficient of the variable audit firm size (Audit Size) is equal to 0.06 and t-statistic equal to 3.275 and given the significance level of 0.001, it can be said that at 99% confidence there is positive and significant relationship between audit firm size and cost of equity. Hence, the first hypothesis is confirmed. Results of this hypothesis are consistent with findings of Fernandez et al (2010). Considering significance level of other variables in the model, it can be concluded that firm size variables at 99% confidence have positive and significant effect on cost of equity. However, relationship of book-to-market value ratio and financial leverage with cost of equity has not been found significant.

Given the value of F-statistic (14.07) and its respective significance (0.000), all coefficients of the regression are not zero at the same time and there is a simultaneous significant relationship between independent variables and dependent variable. Hence, the fitted model is significant at 99% confidence. Given the fitted model's coefficient of determination, it can be claimed that about 32% of changes in cost of equity is explained by the model's variables.

The research second hypothesis suggests a significant relationship between auditor tenure and cost of equity. As is shown in table 3, coefficient of the variable audit firm tenure (Tenure) is equal to - 0.011 and t-statistic equal to -0.591. Hence, according to the discussed theoretical principles and the findings of Fernandez et al (2010), there is a negative relationship between Tenure and cost of equity, however, this relationship is not significant. Given the significance level of the other variables in the model, it can be concluded that the variables firm size, book-to-market value and financial leverage have no significant association with cost of equity. The adjusted coefficient of determination is equal to 0.54 and it can be stated that about 54% of changes in cost of equity have been explained by the model's variables.

Considering the value of F-statistic (4.532) and its respective significance (0.000), all the regression coefficients are not zero at once and there is a simultaneous significant relationship between all the independent variables and dependent variable. Thus, the fitted model is significant at 99% confidence. Given the adjusted coefficient of determination, it can be stated that about 54% of changes in cost of equity have been explained by the model's variables.

The third hypothesis maintains that there is a significant relationship between auditor partner tenure and investors expected rate of return. As is shown in table 3, coefficient of the variable auditor partner is equal to - 0.006 and the t-statistic equal to - 0.593. Hence, according to the discussed theoretical principles, there is a negative relationship between the auditor partner tenure and cost of equity, however, this relationship is not significant. In addition, coefficient of short term auditor partner tenure is equal to 0.079 and the t-statistic equal to 2.294. Thus, there is a positive and significant relationship between short-term auditor partner tenure and investors expected rate of return. Moreover, coefficient of the variable long-term auditor tenure is equal to - 0.009 and the t-statistic equal to - 0.152. Hence, there is a negative relationship between long-term auditor partner tenure and investors expected rate of return, however, this relationship is not significant.

Considering significance of other variables in the model, it can be concluded that firm size has a negative and significant relationship with investors expected rate of return, but the variable book-to-market value and financial leverage have no significant relationship with cost of equity. Given the value of F-statistic (14.572) and its respective significance (0.000), all regression coefficients are not simultaneously zero and there is a simultaneous relationship between all the independent variables and the dependent variable. Thus, the fitted model at 99% is significant. Given the adjusted coefficient of determination, it can be stated that about 43% of changes in cost of equity have been explained by the model's variables.

## **Summary and conclusion**

This research attempted to find an answer to the question as whether auditor quality characteristics result in reduction of cost of equity. For this purpose, the indicators audit firm size, audit firm tenure and auditor partner tenure have been employed as audit quality characteristics. In addition, to measure cost of equity, Gordon Growth Model has been applied. Research findings suggest a positive and significant relationship between audit firm size as one of the audit quality indicators and cost of equity. As was discussed in the section theoretical background, larger audit firms, due to their interest in maintenance of their reputation in the work market and lack of fear for losing their clients due to their large number provide higher quality audit services. However, prior research in Iran by Hassas Yegane and Azinfar (2010) has indicated a negative and significant relationship between size of audit firm and audit quality. Hence, given that Iranian economic environment differs from that of other countries and considering the results of this hypothesis and results of the research by Hassas Yegane and Azinfar (2010), it can be inferred that with increase of audit firm size (decrease of audit quality), cost of equity increases. In other words, with decrease of audit quality (increase of audit firm size), reliability of financial statements decreases and risk of decision making increases for the investor.

Moreover, the results indicated a negative relationship between audit firm tenure as another indicator of audit quality and cost of equity, however, this relationship is not significant. This

313 result suggests that in Iran audit firm tenure has no effect on investors expected rate of return. In  
 314 regard to auditor partner rotation, the results indicated that short-term auditor partner leads to  
 315 increase of investors expected rate of return, but long-term auditor partner has no significant  
 316 effect on investors expected rate of return. Further, the results of this research indicate that  
 317 investors probably do not care much about audit firm and auditor partner tenure in their decision  
 318 makings on expected rate of return.

## 319 **Suggestions**

### 320 A. Suggestions based on the research results

321 1. Board of directors and managers are recommended to take care in choice of audit firm in order  
 322 to increase audit quality and to reduce investors expected rate of return.

323 2. The potential investors are suggested to pay attention to audit quality of the audit firm in their  
 324 decision makings on determining expected rate of return.

### 325 B. Suggestions for future researches

326 1. Taking other indicators into account for measurement of the impact of audit quality on cost of  
 327 equity (e.g. auditor partner rotation, auditor expertise in the industry, ...)

328 2. Taking account of other criteria for measurement of cost of equity such as Ohanlon and Steel  
 329 Model, Capital Assets Pricing (CAPM), ...

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**Table 1:** Results of research variables descriptive statistics

| Variable                 | Mean  | Median | St. deviation | Minimum | Maximum |
|--------------------------|-------|--------|---------------|---------|---------|
| Cost of equity           | 0/35  | 0/33   | 0/17          | 0/10    | 0/80    |
| Auditors size            | 0/31  | 0      | 0/46          | 0       | 1       |
| Auditor tenure           | 4/33  | 4      | 2/17          | 1       | 8       |
| Auditor partner rotation | 3/5   | 3      | 2/5           | 1       | 11      |
| Firm size                | 13/13 | 13/1   | 1/5           | 10/3    | 16/83   |
| Financial leverage       | 0/62  | 0/61   | 0/17          | 0/17    | 0/96    |
| Book-to-market value     | 0/68  | 0/56   | 0/43          | 0/11    | 1/8     |

**Table 2:** Results obtained from statistical test of research first hypothesis

| $COE_{it} = \beta_0 + \beta_1 AuditSize_{it} + \beta_2 Size_{it} + \beta_3 Lev_{it} + \beta_4 BM_{it} + \varepsilon_{it}$ |                  |                      |             |       |
|---------------------------------------------------------------------------------------------------------------------------|------------------|----------------------|-------------|-------|
| variable                                                                                                                  | Abbreviation     | Variable coefficient | t-statistic | Sig.  |
| Constant                                                                                                                  | $\beta_0$        | 0/44                 | 13/087      | 0/000 |
| Auditor size                                                                                                              | $AuditSize_{it}$ | -0/06                | 3/275       | 0/001 |
| Firm size                                                                                                                 | $Size_{it}$      | -0/02                | -5/18       | 0/000 |
| Financial leverage                                                                                                        | $Lev_{it}$       | -0/02                | -0/63       | 0/533 |
| Book-to-market value                                                                                                      | $BM_{it}$        | -0/006               | -0/245      | 0/807 |
| Adjusted R2                                                                                                               | 0/32             | F-statistic          |             | 14/07 |
|                                                                                                                           |                  | Sig.                 |             | 0/000 |

**Table 3:** Obtained results from statistical test of the second hypothesis

$$COE_{it} = \beta_0 + \beta_1 Tenure_{it} + \beta_2 TenureSmall_{it} + \beta_3 TenureLarge_{it} + \beta_4 Size_{it} + \beta_5 Lev_{it} + \beta_6 BM_{it} + \varepsilon_{it}$$

| Variable                  | Abbreviation       | Variable coefficient | t-statistic | Sig   |
|---------------------------|--------------------|----------------------|-------------|-------|
| Constant                  | $\beta_0$          | 0/51                 | 1/276       | 0/206 |
| Auditor tenure            | $Tenure_{it}$      | -0/039               | -2/012      | 0/048 |
| Auditor short term tenure | $TenureSmall_{it}$ | -0/039               | 1/276       | 0/468 |
| Auditor long term tenure  | $TenureLarge_{it}$ | 0/078                | 1/484       | 0/142 |
| Firm size                 | $Size_{it}$        | 0/019                | 0/15        | 0/881 |
| Financial leverage        | $Lev_{it}$         | -0/017               | -0/136      | 0/892 |
| Book-to-market value      | $BM_{it}$          | -0/078               | -1/361      | 0/177 |
| Adjusted R <sup>2</sup>   | 0/54               | F-statistic          |             | 4/532 |
|                           |                    | Sig                  |             | 0/000 |

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415 **Table 4:** Obtained results from statistical test of the third hypothesis

$$COE_{it} = \beta_0 + \beta_1 Partenure_{it} + \beta_2 Small.Partenure_{it} + \beta_3 Large.Partenure_{it} + \beta_4 Size_{it} + \beta_5 Lev_{it} + \beta_6 BM_{it} + \varepsilon_{it}$$

| Variable                            | Abbreviation          | Variable coefficient | t-statistic | Sig.   |
|-------------------------------------|-----------------------|----------------------|-------------|--------|
| Constant                            | $\beta_0$             | 0/377                | 7/237       | 0/000  |
| Auditor partner rotation            | $Partenure_{it}$      | 0/006                | 0/593       | 0/554  |
| Short-term auditor partner rotation | $SmallPartenure_{it}$ | 0/079                | 2/294       | 0/023  |
| Long-term auditor partner rotation  | $LargePartenure_{it}$ | -0/009               | -0/152      | 0/879  |
| Firm size                           | $Size_{it}$           | -0/027               | -6/465      | 0/000  |
| Financial ratio                     | $Lev_{it}$            | 0/002                | 0/04        | 0/968  |
| Book-to-market value                | $BM_{it}$             | 0/028                | 1/203       | 0/231  |
| Adjusted R <sup>2</sup>             | 0/43                  | F-statistic          |             | 14/578 |
|                                     |                       | Sig                  |             | 0/000  |

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