

## The Effect of Earning Transparency on Debt Costs

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### **Abstract**

The earning transparency of accountancy is among the important topics on accountancy and financial reporting. The earning transparency is one of the main functions of accounting and basic components and its results is a favorite topic for investors, managers, legislators, and standard editors. The transparency has a positive impact on performance of companies and it can help the shareholders' interests through assessing the liquidity and power of repayment of debts in a trading unit. Past studies mainly have focused on dimension and specific aspect of earning transparency of accountancy and its impact on debt costs is studied in this research. The index of measuring the earning transparency in this study is the rate of shares efficiency and also the debt costs are measured by applying four indices including pyramids of net sales growth, company size, the percentage of its ownership by government. The research hypotheses were tested by applying financial information of 116 accepted firms of Tehran stock exchange from 2006 to 2012. The results of this study show that there is a meaningful relation between the earning transparency and the debt costs.

**Keywords:** earning transparency, debt costs, information transparency

### **Introduction**

Following recent financial notorieties, investors' reliability to the financial reporting system has been weakened and the earning transparency is considered as a main factor in determining the reliability of the reported values. Given that earning accountancy is the most important informational sources for the users of financial reporting, it would be effective on decisions and have informational content if it were clear. In other words, the more transparency leads to increasing the informational content of accountancy earnings. The company' profitability reports are considered more by investors, managers, and financial analyzers in recent years. Managers are interested in holding earning growth because they often rely on the companies' earnings because their rewards depend on their investors' and the companies' earnings depend on the investors' investment and authenticators' authenticating, thus, they are forced to report information and result obtained by the companies in term of financial statements, specially, profit and loss statement, and they also offer weekly, monthly and annually earnings reports transparently, to prevent any debt cost in a firm and non-investment by suppliers, and then creditors and outside investment. The main purpose of preparing the financial statements and the financial reporting is to provide valuable information on the financial position and the operation and the operational results of trading unit for users' making-decision. Shareholders who are the main part of financial statements users, need reliable information for making-decision. This information can be obtained from various resources distributed by the financial reporting and considered as a main awareness and informing source for shareholders. Revealing the financial information of the companies distributed by the fundamental financial statements and is a source for many decisions made by users, is considered as one of the most important tasks in a company. Availability and transparency for this information is one of most necessary cases in preparing reports and the fundamental financial statement. In most cases,

managers have more information than company's owners, leading asymmetry in some information. Earning transparency results in minimizing this asymmetry between shareholders and investors and provides investors and shareholders to evaluate management performance. Comprehensive reports with high-quality lead to increasing the earning transparency and decreasing asymmetry in some information. In this research, the relationship between earning transparency and debt cost was studied. The role of financial information transparency has been emphasized in recent years, which accounting earning transparency is one of the most important issues in accounting and financial reporting. Today, few people ignore the importance of the financial statements transparency, specially earnings, because, shareholders and authenticators make important decisions based on company's financial information. They need more information and transparency on company performance. Complete disclosure with the financial reporting transparency can create a reliable condition and promote investors' trust. Transparency has a positive effect on company's performances. Perfect disclosure with the financial reporting transparency can create a reliable condition and promotes investors' trust. Transparency has a positive effect on companies' performances and shareholder's interests. The ambiguous financial statements cover debt level of a company and this condition remained hidden and it can increase debt costs, if the company is bankruptcy threshold. Therefore, transparency has much attractiveness for shareholders (Kordestani & Alavi,2010).

A method in creating value is the financing expenses decreasing in companies. On one hand, debt costs indicate the financial statement pressure (Scott, 1976) and agency conflict between managers and investors and authenticators or between different investors groups; so earning transparency is considered as an authenticating process which can effect on debt cost in companies. If earning, predicts the future cash flows ,more accurately, authenticators will take less risk because they can estimate risk power, more accurately and decrease the potential losing due to inaccurate giving credit. Therefore, authenticators request high-quality information, specially, high-quality earning to evaluate loaners validity (credit). Several factors can affect earning quality, which some of them are innate and non-discretionary and some are discretionary. Debts for a company is one of the discretionary factors affecting earning quality. In this study, it was attempted to answer the question, what impact transparency have on debt costs?

### **Background of the study and Hypotheses**

Andrade et al. (2009) studied the relationship between the financial statements transparency and debt cost. They offer some evidence which indicate increasing in the financial debt cost in a company. They found that improvement in the financial reporting quality perceived by investors can considerably economize the financial costs in a company.

Kordestani and Alavi (2010) studied the relationship between accounting earning transparency and common stock capital cost. In this research, the financial information of 90 accepted companies in Tehran's the stock exchange during 2004-2008 was studied and the findings showed that transparency had a positive performance on companies' performances, and it can protect shareholders' interests and companies' with higher earning transparency, experience less common stock capital cost.

Ghosh and Moon (2010) in a research, studied the relationship between financial debt and the earning quality. Using accruals qualities as an index for earning quality showed that the relationship between debt and earning quality is a parabola relationship leading to an increase and then ,decrease to the earning quality.

Amiri & Mohammadi (2012) in a research, studied the relationship between financing via debt and the earning quality of the accepted companies in Tehran's stock Exchange.

Therefore, a sample containing 88 companies accepted in Tehran's stock exchange during 2001-2009, were studied. The results of this study revealed that there was a parabola relationship between finance by debt and the earning quality of the accepted companies in Tehran's stock Exchange.

Sun and et al. (2012) in a research named as earning transparency and company cash holdings, studied the relationship between earning transparency and corporate cash holdings in companies accepted in New York's Stock Exchange. They showed that low earning transparency had a negative effect on company cash holdings and a positive effect on cash stock level. They found that the negative effects of low earning transparency neutralize the positive effects of inventory increasing on corporate value.

Haghighat and Alavi (2013) studied the relationship between the accounting earning transparency and uncommon stock revenue. The research hypotheses were tested by using the financial statements of 92 companies accepted in Tehran's stock Exchange from 2005-2010. Research results showed that there was a negative and significant relationship between the accounting earning transparency and uncommon stock revenue with and without controlling variables in Tehran's Stock Exchange environment.

Bolo and Rahmani Mehr (2013) studied the relationship between earning transparency and shareholders' salaries costs, that the financial data of 121 companies accepted in Tehran's stock Exchange during 2005-2009 were analyzed. The results of this study showed that there was a negative and significant relationship between the earning transparency and shareholders' salaries costs. In other words, companies with more transparent earning experience less cost for shareholders' salaries.

Research hypothesis: One of the most important measures for shareholders and interested parties in evaluating and making-decision for investors is accounting earning. It is expected that if the financial statements of companies had a high profitability this quality would indicate a transparency in the financial report and also, more transparent financial statements, lower debt cost. Therefore, the hypotheses of this research is as follow:

**Hypothesis:** There is a significant relationship between earning transparency and debt cost.

#### **Population and statistical sample**

Research statistical society is consisted of all companies accepted in Tehran's stock Exchange. In this research, the categorized financial date of active companies accepted in Tehran's stock exchange were applied. The reason of selecting this mentioned statistical society is that Tehran's stock Exchange organization has relative comprehensive information on companies position and their economic and financial performances and it can be said that it is the only information resource by which we can access to the financial information resources of companies and test research models. The method used to test the sample is a systematic eliminating method that from above considerations, a number of statistical society companies were selected. The period of study was 7 years, from 2006 to 2012. Statistical society companies should have the following conditions:

- 1) Companies should be an investment one.
- 2) It should contribute in the exchange from 2006-2012.
- 3) The end of financial year is limited to February and the financial year is not changed during the above period.
- 4) In all studied year, the required information and data is available for them.

Earning transparency estimation: in this research, Barth's et al model (2008) was used to define the earning transparency. This model defines transparency as simultaneous earning change

and earning changes with stock revenue. Index evaluating earning transparency level is determination coefficient R2 obtained from stock revenue over earning and its changes. This index is explained as earning transparency, because earning and change in profitability indicate changes in economic condition in a company calculated by stock revenue. To evaluate transparency, model (1) is estimated:

$$R_{i,t} = \alpha + \alpha_1 E_{i,t} / P_{i,t-1} + \alpha_2 \Delta E_{i,t} / P_{i,t-1} + \varepsilon_{i,t}$$

Where,  $R_{i,t}$ : annual stock revenue  $i$  in year  $t$ .

$E_{i,t}$ : earning for each stock prior uncommon accrual in firm  $i$  in year  $t$ .

$\Delta E_{i,t}$ : change in earning for each stock prior uncommon items from  $t-1$  to  $t$ .

$P_{i,t-1}$ : stock price in the end of year  $t-1$ .

$\varepsilon$ : residual error value.

To calculate annual stock revenue, model (1) is used.

$$R_{i,t} = \frac{pt(1+\alpha+\beta) - (pt-1+c\alpha) + bt}{pt-1+c\alpha}$$

Where,  $pt$ : stock price in the end of period  $t$ .

$P_{t-1}$ : stock price in the beginning of period in year  $t$

$\alpha$ : Increasing percentage of capital from charges and cash revenues.

$\beta$ : Increasing percentage of capital from inventory.

$C$ : Nominal amount paid by investor due to capital increasing from cash revenue.

Debt cost estimation – debt cost: in the study, debt cost rate is applied as a dependent variable. Debt costs are affected by different factor. In this research, we consider four indices: sales growth rate, company size, financial level and government ownership percentage.

$$\text{Cost debt} = \beta_0 + \beta_1 \text{ sale growth rate}_{i,t} + \beta_2 \text{ size } I_{i,t} + \beta_3 \text{ LEV }_{i,t} + \beta_4 \text{ CONOWN} + \varepsilon_{i,t}$$

Sales growth rate : rate is calculated by differences in target year sales revenues and source year divided by source year.

Size: company size is of holdings (assets) logarithm for whole company.

LEV: financial lever is obtained by long-term debts sum rate to total holdings (assets).

CONOWN: state ownership percentage is obtained from dividing capital summation by state investment (banks, agencies, insurance institutions).

Final model for hypothesis implementation:

$$R_{i,t} = \beta_0 + \beta_1 \text{ Sales growth rate }_{i,t} + \beta_2 \text{ Size }_{i,t} + \beta_3 \text{ LEV }_{i,t} + \beta_4 \text{ CONOWN} + \varepsilon_{i,t}$$

Thus, gathering the final model of hypothesis, places the results in a regression model and it was extracted by Panel data with the permanent effects of following table:

**Table 1. Estimation of regression model from panel data with random effects**

| Independent variable: earning transparency |           |                          |                    |                   |                    |
|--|-----------|--------------------------|--------------------|-------------------|--------------------|
| Independent variables                      | Parameter | Coefficients             | Standard deviation | T statistic       | Significance level |
| Sales growth rate                          | $\beta_1$ | 1.521                    | 0.311              | 5.474             | 0.001              |
| Size                                       | $\beta_2$ | -1.464                   | 0.41               | -3.522            | 0.001              |
| LEV  | $\beta_3$ | -0.021                   | 0                  | -4.348            | 0.001              |
| CONOWN                                     | $\beta_4$ | -0.327                   | 0.058              | -5.313            | 0.001              |
| statistic Durbin-Watson = 1.72             |           | F statistic= 49.93       |                    | R2=0.467          |                    |
|  |           | Significance level=0.001 |                    | R2 modified=0.458 |                    |

### Results and Discussion

Determination coefficient value for estimated model equals to 46.7% , which indicates that explanatory variables can explain 46.7% changes in the average debt cost. Also, the

modified determination coefficient value for this model is 45.8%, with considering sample size and explanatory variables number, thus, it can be said that access factors to facilities can explain 45.8% changes in the average debt cost, considering sample size and estimated parameters number. Finally, through Durbin-Watson testing, the statistic for this model is 1.72 (near 2), which reveals non-autocorrelation in model residuals and confirms it.

According to statistics and probability, which indicates that the variable is significant, there is a significant relationship between earning transparency and debt costs. Therefore, this hypothesis cannot be rejected

### **Conclusion**

The studied hypothesis in this research is the effect of earning transparency on debt costs, which has a positive and significant relationship such that with increasing transparency in the financial reports, specially, earning. It makes investors encourage to invest in target company, which leads to increasing in earnings and cash flows in company and consequently, company less finance its capital by debt which results in debt cost decrease.

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