The Relationship between Accounting Conservatism and Growth Financed by Long-term Debt Financing Through Companies Listed on the Tehran Stock Exchange

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ABSTRACT

The main objective of this study was to investigate the relationship between accounting conservatism with economic growth through long-term debt is financed by. Method of collecting information on the research methods of the library and the company data available on the TSE for the year 1389-1393 received and studied. In this study, univariate models and regression models were used to test the hypotheses and all testing was done by spss software. The research evidence of a positive relationship between conservatism and the solvency of states. The study also positive relationship between accounting conservatism and growth company funded by debt shows all the classes, but this is not a short-term positive for long-term debt, which is associated with a lower risk for the company.

KEYWORDS
Accounting conservatism, economic growth, long-term debt, univariate models

INTRODUCTION

Accounting conservatism facilitate access to foreign capital, lower capital costs, improves return on investment. So the application of accounting conservatism as an early warning mechanism may be different between debt with maturity, not uniform. In particular, the need for other regulatory mechanisms (including the conservative-oriented accounting) it is possible to shorten the time that debt before its maturity an investment option is exercised, the less and therefore enables creditors to contract on a more common basis. Short deadlines can be improve surveillance because more opportunities to renegotiate about debt. Although the opportunity cost is included, the renegotiation to ensure that managers, investment decisions that are not optimized to suppliers of capital. So debt maturity could be to reduce the impact of private information on financial costs. Companies who have more information asymmetry of debt will be issued short-term up to higher funding costs with long-term debt to avoid because they expect that they can later borrow more under optimum conditions.

With regard to reducing the consequences of debt when the time horizon of the asymmetry is shorter, the need for conservative-oriented accounting as an alternative regulatory instruments may be used for short term creditors compared to long term capital suppliers, less.

The main purpose of this topic is to investigate whether accounting conservatism related to debt maturity structure is and how long the debt funding horizons with conservatism and financial growth of the company through the use of external debts established interaction.

With regard to reducing the consequences of debt when the time horizon of the asymmetry is shorter, the need for conservative-oriented accounting as an alternative regulatory instruments may be used for short term creditors compared to long term capital suppliers, less.

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BACKGROUND RESEARCH

The effect of accounting conservatism on debt: The study, by Dr. Bahman Banimahd (1390) is done, the relationship between accounting conservatism and debt of 42 companies listed companies in Tehran Stock Exchange for the period 1379 to 1386 are analyzed. The results show that accounting conservatism effect of increasing the debt. This theory is accepted and similar foreign research results.

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Also intervening variables that can affect the relationship between conservatism and liabilities is controlled in this study. These variables include the level of sales, the index of profitability (ROA), firm size and the percentage of government ownership. The results of a significant relationship between these variables and liabilities insists. The results show that increasing the percentage of state ownership in the company's capital, debt increases. This factor other than other factors have the greatest effect on the company's debt. The effect of firm size on debt than other variables is negligible. Increase return on assets, reduce debt and increase the frequency of increased sales and asset turnover, the increase in debt.

- investigate the relationship between conservatism and relationship with the business cycle value of profits of companies listed on the Tehran Stock Exchange:

In this research provided by Ahmad Khodami, Behnam Kermshahi and Azam Tahami (2013) on writing is it is the relationship between stock profit and business cycle efficiency is sensitive, especially in the recent research of reaction coefficient profits during the boom, more than the previous recession has been shown. In this study, the relationship between conservatism and respect the value of profits with the business cycle in companies listed on the Tehran Stock Exchange has been investigated. In this regard, 164 companies listed on Tehran Stock Exchange in the period from 1377 to 1388 were selected in a manner systematic elimination. To assess the conservatism of the hypothesis model, Basu was used. This research followed the event. In this type of research following the event. In this type of research to investigate the relationships between variables and data from the natural to the environment that have been there or of past events that occurred without the direct involvement of a researcher, collect and analyze.

Statistical sample:
The population includes all companies listed on the Tehran Stock Exchange. The sample was chosen for the knockout so that companies not possessing the following qualifications, were excluded from the study:
1. The financial year is ending 29/12.
2. The financial information required in connection with the companies surveyed is available.

Operational definition of variables:
- **EFG** (Externally Financed Growth): One measure of the growth of external financing during the review period (short-term)
- **CON_AVG**: The mean scores of conservatism
- **Fixed Effects** (Fixed effects industry)
- **Tobin's Q**: (Representative of the company's growth opportunities) for capital gains plus the market value of assets divided by total assets is less than the book value of capital gains
- **DIV/TA**: Is equal to (total interests divided by total assets)
- **TNT**: Is equal to (changes in income and profit after tax divided by sales)
- **TNA/NTI**: Is equal to (changes in sales divided by total assets) is.

The relationship between the percentage of ownership of the managers with conservatism, it will put Basu model criteria for conservatism and the size of the company, debt and risk legal claims control variables were considered.

**HYPOTHESIS**

1. Between accounting conservatism and growth financed by debt financing through long-term relationship there are more than short-term debt.

**RESEARCH METHODOLOGY**

This type of research following the event. In this type of research to investigate the relationships between variables and data from the natural to the environment that have been there or of past events that occurred without the direct involvement of a researcher, collect and analyze.

**THE RESEARCH MODEL**

\[ \text{EFG}_t = \beta_1 + \beta_2 \text{CON_AVG}_t + \beta_3 \text{Tobin's Q}_t + \beta_4 \text{DIV/TA}_t + \beta_5 \Delta \text{NI/NS}_t + \beta_6 \Delta \text{NS/TA}_t + \text{Fixed Effects} + \epsilon_t \]

In this model (EFG Externally Financed Growth) (a measure of the growth of external financing during the review period (short-term)) as the dependent variable and conservatism, as the independent variable and the growth opportunities the company ... fixed effects industry is considered as a control variable.

**DESCRIPTIVE STATISTICS OF VARIABLES**

As described in descriptive methods on its efforts to offer with tables and using descriptive statistical tools such as central tendency and dispersion, this research is to describe the data, as this would help transparency.

The growth of external financing (EFN) as the dependent variable, conservatism (AVG), opportunities for company
growth (Tobin’s Q), profits divided by total assets (DIV / TA) and changes in income (TS) and change in sales the total assets (TAit ΔNI /TAit ΔNI /) as the independent variable and fixed effects industry as a control variable (FE) in table 1 below.

<table>
<thead>
<tr>
<th>Tab.1. Symbol variables in the model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abbreviations model</td>
</tr>
<tr>
<td>EFG</td>
</tr>
<tr>
<td>AVG</td>
</tr>
<tr>
<td>Tobin’s Q</td>
</tr>
<tr>
<td>DIV/TA</td>
</tr>
<tr>
<td>ΔNI/Nsit</td>
</tr>
<tr>
<td>TAit ΔNI/TAit ΔNI/</td>
</tr>
<tr>
<td>FE</td>
</tr>
</tbody>
</table>

Tab.2. Descriptive analysis of variables (numbers in thousands of rials)

<table>
<thead>
<tr>
<th>Elongation</th>
<th>Skewness</th>
<th>Variance</th>
<th>Standard deviation</th>
<th>Middle</th>
<th>Average</th>
<th>Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.378</td>
<td>0.245</td>
<td>0.357</td>
<td>1.745</td>
<td>0.486</td>
<td>0.579</td>
<td>EFG</td>
</tr>
<tr>
<td>0.438</td>
<td>0.106</td>
<td>0.003</td>
<td>0.638</td>
<td>0.275</td>
<td>0.345</td>
<td>AVG</td>
</tr>
<tr>
<td>0.654</td>
<td>0.867</td>
<td>0.682</td>
<td>1.138</td>
<td>0.302</td>
<td>0.324</td>
<td>Tobin’s Q</td>
</tr>
<tr>
<td>0.635</td>
<td>0.823</td>
<td>0.586</td>
<td>1.342</td>
<td>0.723</td>
<td>0.754</td>
<td>DIV/TA</td>
</tr>
<tr>
<td>0.745</td>
<td>0.801</td>
<td>0.475</td>
<td>1.542</td>
<td>0.657</td>
<td>0.685</td>
<td>ΔNI/Nsit</td>
</tr>
<tr>
<td>0.586</td>
<td>0.754</td>
<td>0.652</td>
<td>1.422</td>
<td>0.344</td>
<td>0.365</td>
<td>TAit ΔNI/TAit ΔNI/</td>
</tr>
</tbody>
</table>

The amount of skewness and kurtosis of each variable and compare it with normal distribution, it seems that all variables are normally distributed, as long as the absolute value of the skewness and kurtosis is large, ie greater than the number (2 ) we can conclude that the data distribution very different from normal distribution. In other words, skewness and kurtosis should be between (2 and -2) are to be normally distributed.

The above clearly skewed towards negative or positive number density and strain related to short and long distribution graph is variable.

**Kolmogorov-Smirnov (K-S):**

Kolmogorov-Smirnov test for normality of the data is used in this test the null hypothesis states that the data are from a normal distribution. In this test, the null hypothesis is rejected if the significance level is less than 05/0, and if the levels significantly higher than the 05/0 is the null hypothesis is accepted. Normal test results related to factor in Table 3 below.

We will take action to investigate the claims of normality particular variable as follows:

H0: Data distribution
H1: Data distribution

<table>
<thead>
<tr>
<th>Tab. 3. Kolmogorov-Smirnov test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tests of Normality</td>
</tr>
<tr>
<td>Variables</td>
</tr>
<tr>
<td>The growth of external financing</td>
</tr>
<tr>
<td>Conservatism</td>
</tr>
<tr>
<td>Company growth opportunities</td>
</tr>
<tr>
<td>Profits divided by total assets</td>
</tr>
<tr>
<td>Changes in income</td>
</tr>
<tr>
<td>Change in sales the total assets</td>
</tr>
</tbody>
</table>

As can be seen in all the variables since a significant level is more than 05/0, so the variables are normally distributed.

**The test model fit:**

This study examines the relationship between accounting conservatism and the percentage of debt in companies listed on the Tehran Stock Exchange. This hypothesis has been to provide a research model that was initially examined the suitability of the model.

In this connection, the null hypothesis and the alternative hypothesis is presented as follows:

H0: Regression Model
H1: Regression Model

**How to judge:**

If at 95% (α=5% error) F statistic calculated from the regression equation is smaller than the value F obtained from the table, H0 is rejected can not be otherwise in H1 hypothesis can be rejected. In case of rejection of H0, will be a significant regression equation.

<table>
<thead>
<tr>
<th>Tab. 4. Analysis of variance regression model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Significance level</td>
</tr>
<tr>
<td>0.000</td>
</tr>
<tr>
<td>0.00681</td>
</tr>
<tr>
<td>364</td>
</tr>
</tbody>
</table>

Results Table 4 shows the dependent variable (growth of external financing), which is explained by the independent variables. SSe the dependent variable (growth of external
financing) that can not be explained by the independent variables (except error) shows. According to the results table above as significantly lower level of 05/0. Therefore, the null hypothesis is rejected and the assumption or assumption can not be ruled out. This assumption is based on the significance of the regression model is approved.

**Durbin-Watson test:**

One of the assumptions that we consider regression, independence of error (difference between actual values and the values predicted by the regression equation) of each other. Durbin Watson serial correlation between the residuals (errors) in the regression test. The hypothesis is as follows:

H0: There is no correlation between the errors
H1: There is a correlation between the errors

**How to judge:**

The judgment is as if this statistic is in the range of 5/1 to 5/2 test H0 (no correlation between errors) will be accepted and otherwise H0 is rejected (the correlation between errors there) and when that solidarity passes between the errors of the regression can be used.

The results of the research model in the table (5) is shown.

<table>
<thead>
<tr>
<th>Tab. 5. Errors independence test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Durbin-Watson statistic</td>
</tr>
<tr>
<td>1/8765</td>
</tr>
</tbody>
</table>

High test results show that the Durbin-Watson statistic for the regression model, the main hypothesis of this study is that between 5/1 and 5/2 is equal to 8765/1. So the null hypothesis that there is no correlation errors and can be used regression.

**Stationary test Variables:**

This section examines the stationary test variables or reliability of variables will be discussed. The purpose of this study stationary, test, boys and Shin (1997) is used. The test statistic is calculated as follows:

H0: There is a single root (not stationary variables)
H1: There is a single root (variable is stationary)

**How to judge:**

If Sig calculated 05/0 is greater than the significance level H0 is rejected and H1 accepted premise, namely data and not static stationary. If Sig calculated from 05/0 smaller significance level H0 is rejected and H1 accepted (errors) in the regression test. The hypothesis is as follows:

\[ \Delta NI/ \Delta N1/ \Delta N1/ \Delta Nis \]
\[ \text{DIV/T A Q} \]
\[ \text{Tobin's AVG EFG} \]
\[ \text{Variables:} \]

\[ \text{Collinearity Statistics:} \]

<table>
<thead>
<tr>
<th>Variables</th>
<th>VIF</th>
<th>Tolerance</th>
</tr>
</thead>
<tbody>
<tr>
<td>The growth of external financing</td>
<td>1/1003</td>
<td>0/982</td>
</tr>
<tr>
<td>Conservatism</td>
<td>1/002</td>
<td>0/978</td>
</tr>
<tr>
<td>Company growth opportunities</td>
<td>1/006</td>
<td>0/963</td>
</tr>
<tr>
<td>Profits divided by total assets</td>
<td>1/110</td>
<td>0/887</td>
</tr>
<tr>
<td>Changes in income</td>
<td>1/1007</td>
<td>0/982</td>
</tr>
<tr>
<td>Change in sales the total assets</td>
<td>1/1013</td>
<td>0/984</td>
</tr>
</tbody>
</table>

**The results of the general regression model research:**

Sometimes two or more variables have a significant impact on the dependent variable. In this situation, multiple regression is used to predict the dependent variable. They'll estimate the regression parameters based on observations of a sample. With the change of the parameters change. In multiple regression we want a society that has K independent variable in the regression is estimated as follows:

\[ y=\beta_0+\beta_1x_1+\beta_2x_2+...+\beta_kx_k+\epsilon \]

Parameters, K ... \( \beta_j \), \( j = 0,1 \), called the regression coefficient. This page on the K-dimensional model of a cloud is regression variables \( x_j \).

\( J\beta \) parameter represents the expected changes is the
response variable for a unit change in Xj, when all other variables in the regression residuals (i ≠ j) are kept constant.

Therefore, parameters, K, ... βj, j = 1,2, partial regression coefficients is called.

**Linear regression analysis:**

Analysis of variance in table table (8) shows that the amount of the relevant indices F and the total level of significant to verify the regression model (5.0 is less significant than levels), as well as the values of the coefficient of determination and adjusted coefficient of determination to arrange equal to 617.0 and 578.0, which represents a percentage of the dependent variable changes is given by the independent variables explaining.

The adjusted coefficient of determination (R adj) that is equal to 578/0, shows that 57 percent of the total to five independent variables and the dependent variable in this equation is a control variable listed. In other words, the independent variables and the dependent variable in this dependent variable to predict (estimate) are.

According to statistics, the value of F (427/32) that the error is smaller than 05/0 significantly, research shows that the regression model is composed of five independent variables and the dependent variable and independent variables can be a good model explain changes in growth financing.

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### Tab. 8. Analysis of variance Variables

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>The coefficient of determination</th>
<th>The coefficient of determination</th>
<th>F statistic</th>
<th>Significance level</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0/628</td>
<td>0/617</td>
<td>0/578</td>
<td>32/427</td>
<td>0/000</td>
</tr>
</tbody>
</table>

According to the value of the F statistic is significant and fitted regression model according to the coefficient of determination, these variables, 61% of the variability of growth with the explanation of the financing. Watson also camera statistics because it is between 5.1 to 5.2 so we can conclude that there is no correlation between the variables of your problem.

**CONCLUSION**

Debt financing through the tax savings due to the lower rate it in comparison with the expected return of shareholders, favorable financing for more solutions. But what about the granting of credit providers for credit is important, be paid principal and interest of loans and credits paid by the borrower. Generally, one of the developers to evaluate the validity of the guidelines be paid principal and interest loan to it, check the case of corporate finance, which is in between for profit and loss and especially figure profit before interest is of importance. But what causes concern because of credit providers in the use of accounting profit, calculate the figure using the accrual approach. Based on this approach, with the realization of the revenue and the occurrence of the cost and without regard to the time of the exchange of cash, profits can be identified. Therefore, in the calculation of the profit forecasts and estimates used by management that would manipulate the profits made possible and the quality of reported profit, i.e. the ability to profit in cash flow projections of future doubtful.

In this research effort is fitted the impact of conservative accounting and business companies with foreign debt by funding with an emphasis on the role of debt maturity examination and assessment. The aim of the present research the effect of accounting conservatism and the growth of companies with funding by external debt with an emphasis on the role of debt maturity.
To evaluate variables, this study was conducted on companies listed on the stock exchange. To collect the required data, the site of the Stock Exchange and the Rahavard novin software is used. The data collected were analyzed using spss software. In the next section, research hypotheses were tested using linear regression analysis and regression equation was calculated for each variable.

The results of the study are presented in the following table:

<table>
<thead>
<tr>
<th>Table 10. Statistical analysis hypothesis</th>
<th>Result</th>
<th>Beta coefficient</th>
<th>Significance level</th>
<th>Hypothesis</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Hypothesis Confirmation</td>
<td>0/647</td>
<td>0/007</td>
<td>Between accounting conservatism with economic growth through financed by long-term debt to short term debt is more relevant.</td>
</tr>
</tbody>
</table>

About 95% sure this hypothesis as well and at the level of error smaller than 5.0 has been approved and the relationship between the independent variables are significant and there is a dependent variable. This means that the variable accounting financial growth with conservative business-through funding by the long term debt and short term debt has a significant relationship. On the other hand the value of this relationship is a strong indication of solidarity against the 647.0 between the two variables working financial growth accounting conservatism-through funding by long term debt and short term debt. Therefore it can be concluded that the hypothesis about the reception.

Finally we can say that:

-Conservative accounting between financial growth with something fitted through the funding of long term debt by linking more than short-term debt there.

Offers:

- The research hypothesis was verified between the conservatism of financial accounting with the development through the funding of long term debt by debt more than short-term relationship there. So it can be noted that companies with conservative accounting system of long term financing more short-lived. Therefore, it is recommended that the managers of the company for the early return of project financing as well as short term interest costs because the use of long term financing for these types of projects more cost to the company can impose.

REFERENCES


