

# The Impact of Accounting Conservatism on the Cost of Debt Financing

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## Abstract

In 2016, the A share listed companies in Shanghai stock market were selected as samples, and some theories were used for elaboration and multiple regression analysis was used for empirical research. From two perspectives of theory and demonstration, the effect of accounting conservatism on the cost of corporate creditor's rights and financing is discussed, and it is concluded that the accounting conservatism has a significant negative correlation with the impact of the cost of debt financing. Finally, combined with the results of empirical analysis, we put forward relevant suggestions and inspirations.

## Keywords

Accounting conservatism, debt financing, cost.

## 1. Introduction

It can be seen from the status quo of Chinese enterprises that the stability of accounting information will directly affect the cost of financing for corporate loans. In China, listed companies mainly finance through loans. According to relevant statistics, in recent years, the ratio of loans to total financing has increased. Therefore, it is becoming more and more important for listed companies to issue loan financing. However, due to the information asymmetry between the creditor and the debtor and the moral hazard of the debtor, the creditor and the debtor have obvious conflicts of interest. The principle of accounting conservatism can smoothly reduce the opportunity and motivation of the debtor to manipulate financial information, reduce the moral hazard in the debt contract, and thus reduce the risk caused by the information asymmetry between the creditor and the debtor, and the related risks. problem. Therefore, accounting conservatism can reduce the credit risk of creditors and reduce the investment cost of debtors.

Relevant scholars have made many achievements in the research of accounting conservatism on debt financing. However, previous literature studies have different opinions on the relationship between the accounting conservatism of listed companies and debt financing costs. This study mainly focuses on the listed companies in Shanghai stock market, and discusses the impact of accounting stability factors of listed companies in Shanghai on debt financing from the perspective of empirical research, thus reducing the financing costs of listed companies in Shanghai stock market.

## 2. Theoretical Analysis

### 2.1. Overview of Accounting Conservatism

The "Enterprise Accounting Standards - Basic Standards" promulgated by the Ministry of Finance of the People's Republic of China stipulates that enterprises should maintain due diligence in accounting confirmation, measurement and reporting of transactions or events, that is, they should not overestimate assets or income, underestimate liabilities or expenses.

## **2.2. Overview of Debt Costs**

### **2.2.1. The Concept of Debt Cost**

Debt capital cost refers to the price paid by an enterprise for raising debts and using funds for operating activities through the issuance of bonds, bank loans or commercial credits. The cost of debt capital includes the cost of raising funds and the cost of using funds. The cost of raising funds is all the expenses incurred to raise funds. It consists of fees, agency fees and advertising costs. The fee for the use of funds is the fee paid to the owner of the fund using funds, which includes various interest charges.

### **2.2.2. Factors Affecting Debt Costs**

First, external factors are one of the important factors for companies to make debt capital cost decisions. They include market interest rates, exchange rates, and income taxes. The market interest rate is the debt financing price of the debt capital cost. When the debt size is constant, the higher the market interest rate, the higher the debt capital cost. Therefore, market interest rate is the most direct factor affecting the cost of debt capital. The exchange rate is the price of another currency in one currency. It affects the price of the domestic currency through the fluctuation of the currency price in the international market, thus affecting the domestic market interest rate. It has become an important factor affecting the cost of debt capital. In China, the tax law stipulates that the cost of debt capital has a tax-deductible effect, and different tax rates have different tax-deducting effects. Therefore, the higher the income tax rate, the lower the actual debt cost.

Secondly, from the perspective of internal factors affecting debt capital cost decision-making, it mainly includes company size, company profitability and asset-liability ratio. In terms of company size, the larger the company, the stronger its ability to withstand business and financial risks, and the lower the company's default risk. Therefore, the larger the company, the lower the debt capital cost. From the perspective of the company's profitability, the stronger the company's profitability, the stronger the company's ability to repay debt, the more the creditor's assets can be protected. Therefore, the stronger the company's profitability, the lower the debt capital cost. In terms of the company's asset-liability ratio, the higher the company's asset-liability ratio, the worse the company's ability to repay debt, and the debtor's assets are likely to be unprotected. Therefore, the higher the company's debt ratio, the higher the debt capital cost.

## **2.3. The Impact of Accounting Conservatism on The Financing Cost of Listed Companies' Creditor's Rights**

Debt financing is usually one of the ways of financing for listed companies. Its financing efficiency directly affects the amount of financing of the company, which indirectly affects the company's investment direction, investment scale and operational efficiency. Moral hazard exists between the creditor and the debtor due to insufficient information, limited liability and limited contract. These moral hazard will directly affect the creditor's willingness to borrow and the amount of borrowing, which further affects the creditor's opportunity to finance funds. Quantity. Basu's related research shows that accounting robustness can mitigate this moral hazard to a certain extent. Usually, when the company is in good operating condition, the creditor's income is the principal and interest, in which case the creditor is willing to lend the money to the debtor. However, when the company's operating conditions deteriorate, the creditor may face the risk of the principal and interest not being recovered, and the creditor is unwilling to lend the money to the debtor. Therefore, in order to reduce the risk that the principal and interest will not be recovered, the creditor will require the debtor not to overestimate the assets or income, underestimate the liabilities or expenses, and timely understand the creditor's operating status and profit distribution, and ensure that the principal and interest can be recovered on time.

In summary, accounting conservatism can enable creditors to obtain more information about the debtor in a timely and accurate manner and reduce the credit risk of creditors. Therefore, the terms of the debt contract can be reasonably formulated, and the debtor's repayment situation can be effectively supervised in a timely and effective manner.

### 3. Empirical Test

#### 3.1. Hypothesis Proposed

The higher the degree of accounting conservatism, the less the cost of corporate debt financing.

#### 3.2. Sample Selection and Data Sources

The data of the A-share market of the Shanghai Stock Exchange in 2016 was selected for research. In order to ensure that the research results are more accurate and representative, the selected samples were processed as follows: (1) Excluding the special companies such as the financial insurance industry. (2) Excluding ST and ST\* companies; (3) Excluding companies with incomplete data and singular value companies. Finally, a total of 233 listed company data were obtained as research samples. In this paper, EXCEL and Eviews are used in the research process for auxiliary analysis. The data comes from the Guotaian database.

#### 3.3. Variable Definition

##### 3.3.1. Explanatory Variables

The study believes that the negative cumulative accrual project measurement model can better reflect the accounting robustness. Therefore, this paper uses the negative cumulative accrual project measurement model to reflect accounting conservatism. Define it as CON, the larger the CON, the higher the degree of accounting robustness. Its measurement model is as follows:

$$\text{Total accruals} = \text{net profit} + \text{depreciation} - \text{cash flow from operating activ} \quad (1)$$

Operating accruals =  $\Delta$ accounts receivable +  $\Delta$ inventory +  $\Delta$ prepayments - accounts payable - tax payable -  $\Delta$ advance receipts

$$\text{Non-operating accruals} = \text{total accruals} - \text{operating accruals} \quad (2)$$

$$\text{Accounting Conservatism (CON)} = -\text{Non-operating Accruals} / \text{Ending Total Assets} \quad (3)$$

##### 3.3.2. Interpreted Variables

In theory, the financing cost of creditor's rights should be equal to the ratio of the sum of interest expense, handling fee and capitalized interest expense to the average interest-bearing liability. However, in the data disclosed by listed companies in China, it is difficult to find the value of capitalized interest expenses. Therefore, the ratio of financial expenses to interest-bearing liabilities is used to measure the cost of debt financing of listed companies.

##### 3.3.3. Control Variables

In order to control the impact of asset-liability ratio, operating efficiency, firm size, profitability, and operating income growth rate on the cost of credit financing, the following variables are added to the model as control variables.

In theory, if the company's asset-liability ratio is higher, its risk of default is greater, which will increase the cost of debt financing. Therefore, the asset-liability ratio is used as a control

variable. It is expected that the asset-liability ratio will be positively correlated with the cost of debt financing. Its calculation formula is as follows:

$$\text{LEV} = \text{end of total liabilities} / \text{final assets at the end of the period} \quad (4)$$

Studies have shown that the higher the operational efficiency of enterprises, the faster the turnover of corporate assets, and the greater the possibility that creditors can receive capital on time. Therefore, the lower the cost of debt financing for enterprises. Operating efficiency is used as a control variable. It is expected that the operating efficiency will be negatively correlated with the cost of debt financing. Its calculation formula is as follows:

$$\text{ATO} = \text{Net Profit} / \text{Ending Total Assets} \quad (5)$$

According to the study, the larger the company is, the stronger its ability to withstand risks, the more it can provide creditors with repayment guarantees, and the cost of debt financing will be lower. Therefore, the size of the firm is used as a control variable. It is expected that the size of the company will be negatively correlated with the cost of debt financing. Its calculation formula is as follows:

$$\text{SIZE} = \ln(\text{total assets at the end of the period}) \quad (6)$$

The greater the profitability, ie the return on total assets, the greater the return on total assets, the stronger the ability of the firm to withstand various risks, the lower the risk of default in the debt contract, and the more secure the creditor's capital. Therefore, profitability is used as a control variable. It is expected that the profitability will be negatively correlated with the cost of debt financing. Its calculation formula is as follows:

$$\text{ROA} = \text{total return on assets} \quad (7)$$

According to the study, the faster the growth rate of the company's operating income, the better the company's growth, the higher the security of repaying the borrowed capital, and the easier it is to borrow money from other companies. Therefore, the lower the cost of debt financing. The operating income growth rate is used as a control variable. It is expected that the growth rate of operating income will be negatively correlated with the cost of equity financing. Its calculation formula is as follows:

$$\text{GROWTH} = \text{Main business income growth rate} \quad (8)$$

## 4. Regression Analysis

### 4.1. Regression Model Construction

Based on the above analysis, the model of the impact of accounting conservatism on the cost of debt financing is as follows:

$$\text{RB} = \beta_0 + \beta_1 \text{CONV} + \beta_2 \text{LEV} + \beta_3 \text{ATO} + \beta_4 \text{SIZE} + \beta_5 \text{ROA} + \beta_6 \text{GROWTH} + \epsilon_i, t \quad (9)$$

According to the research hypothesis, accounting conservatism is negatively correlated with the cost of equity financing. If the assumption is established, the coefficient  $\beta_1$  of the variable CONV is significantly negative.

#### 4.2. Descriptive Statistical Analysis

Before in-depth analysis of the data, first, a descriptive statistical analysis of the acquired samples is required to verify the rationality of the data and to initially understand the selected variables. The results of the analysis are shown in Table1.

**Table 1.** Descriptive statistics for each variable in the model

	RB	ATO	CONV	GROWTH	LEV	ROA	SIZE
Mean	0.0206	0.0114	0.0018	1.7434	0.6188	0.0212	24.1758
Median	0.0167	0.0098	-0.0147	0.2647	0.6276	0.0205	24.0050
Maximum	0.2567	0.1336	0.6565	222.7947	0.941317	0.132367	28.50522
Minimum	-0.0850	-0.1866	-0.7166	-0.8186	0.1232	-0.2918	21.00464
Std.Dev.	0.0278	0.0299	0.1519	14.8771	0.1575	0.0371	1.3580
Skewness	2.5138	-1.4868	0.2307	14.3035	-0.3581	-2.9759	0.5770
Kurtosis	25.0569	15.4852	8.1901	212.0807	3.031751	26.01616	3.261622
Jarque-Bera	4947.289	1592.350	262.452	430486.8	4.969413	5463.303	13.53811
Probability	0.0000	0.0000	0.0000	0.0000	0.0833	0.0000	0.0011
Sum	4.784572	2.646438	0.4266	404.4797	143.5818	4.925754	5608.790
Sum Sq.Dev.	0.179695	0.207652	5.3367	51127.25	5.735976	0.318333	426.0415

As can be seen from Table1, the average value of CONV (accounting robustness) is 0.001839, which is greater than zero. Explain that the selected sample companies generally have accounting conservatism. The maximum cost of debt financing is 0.256765 and the minimum is -0.085067. The difference between the two is small, which indicates that the cost of debt financing of listed companies in Shanghai stock market is not much different. In addition, the average cost of debt financing costs is 0.020623, which indicates that there is still room for reduction in the financing costs of China's Shanghai A-share listed companies. The maximum growth rate of operating income is 222.7947, the minimum is -0.818682,  $222.7947 - (-0.818682) = 223.613382$ , which is a big difference, indicating that the selected operating income growth rate has a certain large difference, which can also be increased from operating income. The size of the standard deviation is seen. The minimum asset-liability ratio is 0.123299, indicating that the selected sample companies have liabilities. The difference between the median and the mean of the profitability is small, indicating that the difference in the selected profitability data is small. The maximum size of the company is 28.50522, and the minimum value is 21.00464. The difference between the two is large, indicating that the sample companies selected have certain differences.

#### 4.3. Correlation Analysis

Before performing multiple regression analysis, the correlation coefficient between each explanatory variable and the interpreted variable must be analyzed to ensure the reliability and representativeness of the regression analysis results. The results of the analysis are shown in Table2.

**Table 2.** Correlation analysis of variables in the model

	RB	ATO	CONV	GROWTH	LEV	ROA	SIZE
RB	1	0.0573	-0.0492	-0.0638	-0.0547	0.0105	-0.2342
ATO		1	-0.2345	-0.0316	-0.2252	0.6071	0.0622
CONV			1	0.1734	-0.0307	-0.0056	-0.0840
GROWTH				1	0.1304	-0.0314	0.0638
LEV					1	-0.3089	0.2220
ROA						1	0.1245
SIZE							1

It can be seen from Table2 that the correlation coefficient of all variables is less than 0.8, and it can be judged that there is no multi-collinear collinearity between the selected variables. The correlation coefficient between accounting conservatism and debt financing cost is -0.049215, indicating that the higher the accounting conservatism, the lower the cost of corporate debt financing. This is consistent with the above assumptions.

The correlation coefficient between the growth rate of operating income and the cost of debt financing is negative, indicating that the two variables are negatively correlated. The correlation coefficient between company size and debt financing cost is negative, indicating that the two variables are negatively correlated.

#### 4.4. Multiple Regression Analysis

In order to test the influence of each explanatory variable on the explained variable, a multivariate regression analysis was performed on the model constructed above, and the analysis results are shown in Table 3.

**Table 3.** Multiple regression analysis of variables in the model

Variable	Coefficient	Std.Error	t-Statistic	Prob.
C	0.139511	0.032459	4.298052	0.0000
CONV	-0.008904	0.012650	-0.703871	0.4822
ATO	0.054170	0.079165	0.684262	0.4945
GROWTH	-7.54E-05	0.000124	-0.606622	0.5447
LEV	0.003479	0.012591	0.276275	0.7826
ROA	0.007670	0.064489	0.118941	0.9054
SIZE	-0.005033	0.001395	-3.607876	0.0004
R-squared	0.364744	Mean dependent var	0.020623	
Adjusted R-squared	0.039804	S.D.dependent var	0.027891	
Sum squared resid	0.168061	Schwarz criterion	-4.227950	
Log likelihood	509.5057	Hannan-Quinnn criter	-4.290005	
F-statistic	2.595962	Durbin-Watson stat	1.720005	
Prob(F-statistic)	0.018807			

It can be seen from Table 3 that the correlation coefficient between accounting conservatism and debt financing cost is -0.008904, which is less than zero, indicating that accounting conservatism is negatively correlated with the cost of debt financing, which is consistent with

the above assumptions. In addition, the standard deviation between accounting conservatism and debt financing costs is 0.012650, indicating that the estimated value of the regression coefficient is relatively reliable. The value of DW is 1.720005, which is greater than 1.5 and less than 2.5, indicating that the sequence has no autocorrelation. The value of the coefficient of determination is 36.47%, which indicates that the selected six variables have a greater impact on the cost of debt financing, which proves that the selection of variables is successful.

#### 4.5. Regression Analysis

In order to test the impact of accounting conservatism on the cost of debt financing, the regression analysis of accounting conservatism and credit financing cost is carried out. The analysis results are shown in Table 4.

**Table 4.** Regression analysis of accounting conservatism and debt financing costs

Variable	Coefficient	Std.Error	t-Statistic	Prob.
C	0.007370	0.012432	0.592839	0.5539
RB	-0.268203	0.358904	-0.747282	0.4557
R-squared	0.302422	Mean dependent var		0.001839
Adjusted R-squared	-0.001915	S.D.dependent var		0.151996
Sum squared resid	5.323789	Schwarz criterion		-0.889720
Log likelihood	108.6543	Hannan-Quinnn criter		-0.907451
F-statistic	0.558430	Durbin-Watson stat		1.949594
Prob(F-statistic)	0.455657			

It can be seen from Table4 that the correlation coefficient between accounting conservatism and debt financing cost is -0.268203, which is less than zero, indicating that accounting conservatism is negatively correlated with the cost of debt financing, which is consistent with the above assumptions. In addition, the standard deviation between accounting conservatism and debt financing cost is 0.358904, indicating that the estimated value of the regression coefficient is relatively reliable. The value of the coefficient of determination is 30.24%, indicating that accounting conservatism has an impact on the cost of debt financing.

## 5. Conclusions and Recommendations

### 5.1. Research Conclusions

Taking the sample of A-share listed companies in Shanghai stock market in 2016 as an example, after empirical research on the relationship between accounting conservatism and bond financing costs, it is found that accounting conservatism is negatively correlated with the cost of debt financing, that is, the higher the accounting stability. The more the debt financing costs.

### 5.2. Revelation

For creditors, a sound accounting system can enable creditors to obtain timely and accurate information on the financial deterioration of the debtor's company, and be prepared to face the risk of default in advance, reducing the loss of creditors. At the same time, it can also slow down the information asymmetry between the creditor and the debtor, reduce the moral risk and opportunistic behavior of the debtor, thereby reducing the credit risk of the creditor and increasing the probability of the debtor recovering the principal and interest.

For the debtor, the higher the accounting stability of the debtor's listed company, the lower the cost of debt financing for the fundraising, which means that the lower the interest paid to the

debtor, the more funds the company has to operate. Activities are conducive to the long-term development of the company.

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