Correlation between Key Audit Matters and Enterprise Debt Financing Cost Research

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Abstract

How to alleviate the "difficulty" and "expensive" of financing has always been a hot issue concerned by scholars. Combined with the background of the revision of audit standards, this paper selects ah share listed companies from 2014 to 2018 as the research object to empirically test the correlation between key audit matters and debt financing costs. The empirical results show that the debt financing cost will be reduced due to the disclosure of key audit matters, and the more the disclosure quantity is, the more significant the reduction effect is; the effect of reducing the cost of debt financing is more significant than that of the non big four. This result is still valid after PSM matching regression. This paper not only enriches the relevant economic consequences brought by the disclosure of key audit matters, but also provides a new perspective on how to reduce the cost of debt financing.

Keywords

Key Audit Matters; Debt Financing Costs; Financing Constraints; Information Asymmetry.

1. Introduction

Capital is the driving force for the growth of enterprises. Due to internal and external reasons, the financing difficulties of enterprises and how to alleviate the financing cost have always been the hot topics concerned by scholars at home and abroad. In recent years, scholars have studied the influencing factors of debt financing cost from the aspects of internal control [1], information disclosure quality [2], financial ecological environment [3]. Now, with the emergence of key audit matters in the new audit standards, does it increase the information value of audit reports as preset, improve incremental information for financial report users and reduce debt financing costs?

So far, most literatures believe that the disclosure of key audit matters increases the information value of audit reports, provides incremental information for investors, and increases the cumulative excess return of investors [4], especially when auditors use positive concluding statements, it can attract investors [5]. For debt financing costs, from the external point of view, under different institutional backgrounds, state-owned listed enterprises can obtain more long-term loans, but in areas with low degree of government intervention and high level of financial development, this differential behavior will weaken [6]. Internally, the better the governance level of the company [7], the robustness of accounting information [8], the smaller the financing constraints. Investors pay less attention to the revision of the existing capital market auditing standards. Compared with equity investors, creditors demand repayment of principal and interest at maturity and pay more attention to downside risks [9]. The risk information disclosed by key audit matters is the downside risk of the enterprise. Therefore, it is more appropriate for us to study the incremental information provided by key audit matters from the perspective of debt.

This paper selects ah listed companies from 2014 to 2018 as the research object to empirically test the impact of key audit matters on debt financing costs. The study found that the disclosure

of key audit matters can significantly reduce the financing cost, and the degree of reducing the debt financing cost is directly proportional to the number of disclosures, and the cost reduction effect of the key audit matters disclosed by the four major international companies is significantly better than that of the non-four major companies.

2. Theoreticla Analysis and Hypotheses are Proposed

First of all, there is no ideal market. Due to the existence of information asymmetry, agency cost and other problems, the capital cost of an enterprise is not as ideal as the capital structure theory in MM theory. According to the theory of information asymmetry, when an enterprise expands outward, its internal funds cannot be satisfied, so it needs to finance funds outward. For creditors, there are few ways to obtain enterprise information. Currently, the investors' information disadvantage becomes prominent. The dominant side will try to deprive the disadvantaged side, and the disadvantaged side will take measures to protect their own interests, such as increasing financing restrictions and raising financing costs. Therefore, the level of financing cost is related to the degree of information asymmetry. Information disclosure is conducive to reducing the degree of information asymmetry between banks and enterprises, and helping banks to open the "door" of enterprise risk black house. The disclosure of key audit matters can reduce the degree of information asymmetry and weaken the creditors' risk perception. The quality of accounting information is an important factor affecting the debt financing cost. The disclosure of key audit matters can improve the robustness of accounting information. Secondly, according to the risk convergence view, if the risk information provides weak heterogeneous information, then it will help to reduce the cost of debt financing. With more known risks and less unknown risks, the interpretation effect of known risks can effectively alleviate information asymmetry, thus reducing the cost of debt financing.

In conclusion, the following assumptions are made:

Hypothesis 1: Disclosure of key audits will reduce debt financing costs

The disclosure of key audit matters provides incremental information for creditors and opens the "black box" for corporate risks for creditors. for low quality enterprises, key audit matters will choose to disclose as little as possible to prevent creditors from understanding internal risks. For high quality enterprises, they are willing to disclose more key audit matters to gain the trust of creditors and reduce debt financing costs.

In conclusion, the following hypothesis is proposed:

Hypothesis 2: disclose more key audit matters to reduce the cost of debt financing

Based on the above analysis, the disclosure of key audit matters can help reduce debt financing costs. The ability of accounting firms is uneven, and the audit quality provided is also different. Will the differences of accounting firms affect the investment choices of creditors?

According to the reputation hypothesis, once the firm's reputation is damaged, it will certainly lead to the loss of customers, and may even need to retain customers by reducing the audit fees. For the international "big four" who value reputation, it is less likely to meet customers at the risk of reputation damage. Shuipeng Wu, Qifeng Li [10] Using the data of all A-share listed companies in 2003, two-step regression is adopted to study the audit quality of the four international, top ten, domestic and domestic non-top ten. The results show that the quality of the four international audit is higher than the domestic ten, and the domestic ten are higher than the domestic non-ten. Yongjian Lin, [11] WuZhiqiang Heckman two-stage regression was used to study the relationship between the international four major companies and audit quality. The research results found that the international "four major companies" can provide higher audit quality than non-local firms.[12] Huiyu Feng found that the reputation of accounting firms had a significant impact on reducing the cost of debt.

In conclusion, this paper proposes the following hypothesis:

Hypothesis 3: Different types of accounting firms, and key audit matters have different effects on debt financing costs

3. Study Design

3.1. Sample Selection and Data Selection

Considering that the audit standards were first implemented in AH listed companies, this paper chose the audit report of AH share listed companies as the research object, and published the audit report in 2014-2018 as the research sample. Considering the financing cost of the financial industry is very different, the industry; excluding the companies whose ST and * ST and missing variables cannot obtain data, 323 valid samples were obtained. The data in this paper are obtained from RESSET database and CSMAR database, and the information on key audit matters was compiled through the manual collection of audit reports from 2014-2018.For all continuous variables, this paper takes a 1% reduced tail treatment, and the empirical part is completed using STATA15.0.

3.2. Variable Definition

Interpreted variables

This paper adopts the measurement method of debt financing cost in Xianwei Lu [13] and Hanwen Chen et al. [14-16] to divide the sum of interest expenses plus capitalized interest expense by the total liabilities. The bigger the target, the greater the cost of debt financing.

Costdebt= (Interest expense + capitalized interest expense) / Total liabilities

Interpretive variables and control variables

The explanatory variables in this paper are the key audit items Kam, and the number of key audit items Kamn. Kam is a virtual variable with 1 disclosed, otherwise 0.

Control variable

Table 1. Variables Description Table

	Variable name	variable symbol	variable declaration
explained variable	Debt financing costs	Costdebt	(Interest expense + capitalized interest expense) / Total liabilities
explanatory variable	Key audit matters	Kam	Whether to disclose key audit matters
	Number of key audit items	Kamn	Number of key audit items
regulated variable	accounting firm	Big4	The international "big four" audit is 1, otherwise, 0
controlled variable	asset size	Size	Logarithm of the total assets
	asset-liability ratio	Lev	Total tangible assets / total liabilities
	return on assets	Roa	Net profit / year-end assets
	increase rate of business revenue	Growth	Growth of main business revenue / main business income of last year
	Property nature	Soe	State-owned enterprises for 1, non-state-owned enterprises for 0
	asset turnover	Turn	Sales revenue / annual total assets
	fixed assets ratio	Fixass	Fixed assets / Total year-end assets
	Interest protection multiple	Icr	EBIT / interest expense

Consider the financial characteristics of the enterprise itself and the type of accounting firm. The control variables reflect the asset-liability ratio and the return on total assets reflecting the profitability. The type of accounting firm uses the virtual variable, which is the "big four" of 1, otherwise, 0. Other relevant control variables include asset scale, property right nature, growth rate of operating income, and fixed asset ratio.

The specific names of the explanatory and control variables, descriptions, and symbol representations are shown in Table 1.

3.3. Model Design

To examine the impact of key audit matters on debt financing costs, this paper builds models for hypothesizes.

$$Costdebt = \alpha_0 + \alpha_1 Kam + \alpha_n Controls + \varepsilon \tag{1}$$

$$Costdebt = \alpha_0 + \alpha_1 Kamn + \alpha_n Controls + \varepsilon \tag{2}$$

$$Costdebt = \alpha_0 + \alpha_1 Kam + \alpha_2 Big4 + \alpha_3 Kam * Big4 + \alpha_n Controls + \varepsilon \tag{3}$$

4. Empirical Analysis

4.1. Descriptive Analysis

Table 2. Descriptive statistics of the whole sample of the variables

Variable	Sample capacity	Average value	Standard error	Min	Max
Costdebt	323	0.023	0.013	0.001	0.059
Kam	323	0.598	0.491	0	1
Kamn	323	1.347	1.357	0	5
Size	323	24.948	1.546	21.2	28.505
Lev	323	0.674	0.274	0.221	1.892
Roa	323	0.037	0.039	-0.088	0.175
Growth	323	0.108	0.230	-0.359	1.080
Turn	323	0.647	0.462	0.122	2.507
Fixass	323	0.268	0.208	0.008	0.73
Icr	323	17.207	51.932	-7.571	384.304
Big4	323	0.585	0.493	0	1
Soe	323	0.777	0.417	0	1

As can be seen from Table 2, the average value of key audit matters is 0.598, and more than half of the enterprises have been disclosed, which is related to sample selection. The selection range of this paper is 2014-2018, and most AH share enterprises have been disclosed since 2016.The number of key audit items has a standard deviation of 1.357, means the large differences among enterprises. among the control variables, the asset scale and the profit before interest and tax change greatly. Because the variables of the enterprise asset size are quite different, the logarithmic treatment is adopted in this paper to avoid its impact on the regression results. the large margin of EBIT may be due to the different profitability of each enterprise.

4.2. Regression Analysis

As shown in column (1) of Table 4, there is a significant negative correlation between key audit matters (Kam) and debt financing cost (Costdebt) at the level of 5%, which verifies hypothesis 1. The reason is that the key audit matters are equivalent to opening the "black box" of risks for creditors, improving the transparency of information, enhancing the trust of creditors and

reducing costs. Kamn in column (2) is significantly negative at the level of 1%, which verifies the hypothesis of hypothesis 2. Better developed enterprises are willing to disclose key audit matters, turn on the "signal light", weaken creditors' consideration of unknown risk points by disclosing known risks, and obtain creditors' information, to reduce debt financing costs. It can be seen from column (3) (4) that the Kam coefficient of the international "big four" audited companies is -0.003, which is significant at the level of 5%, but the Kam coefficient of the non-international "big four" audited companies is -0.001, which is not significant. Hypothesis 3 is verified. In order to make the results more meaningful, this paper also uses the interactive term to confirm the coefficient difference between groups and further verify hypothesis 3.

Table 3. Regression results

Variable	Costdebt			
	(1)	(2)	(3)	(4)
			Four major international	Four non-International
Kam	-0.003**		-0.003**	-0.001
	(-2.05)		(-2.16)	(-0.62)
Kamn		-0.001***		
		(-2.94)		
Kam_Big4			-0.003***	
			(-2.74)	
Controlled variable	Control			
Constant	-0.017	-0.019*	0.080***	-0.044***
	(-1.63)	(-1.87)	(3.74)	(-2.97)
N	323	323	189	134
R	0.375	0.383	0.333	0.520

t-statistics in parentheses *** p<0.01, ** p<0.05, * p<0.1

5. Rubustness Test

Table 4. PSM regression results

Variable	Costdebt	
	(1)	(2)
Kam	-0.005**	
	(-2.16)	
Kamn		-0.002**
		(-2.39)
Controlled variable	Control	
Constant	0.102***	0.096***
	(3.77)	(3.48)
N	198	198
R	0.286	0.288

t-statistics in parentheses*** p<0.01, ** p<0.05, * p<0.1

Considering the problem of sample self-selection, this paper uses propensity score matching (PSM) to test the robustness. In 2017, all A-share listed companies did not disclose key audit matters. Excluding the disclosed AH-share listed companies, ST and * ST companies, and missing data in that year, PSM method was used with a + H shares and matched within the range

of caliper 0.05. Finally, 198 groups of data were obtained. The regression results are shown in Table 4. As can be seen from Table 4, the results are consistent with the previous assumptions, and the conclusion of this paper is robust.

6. Conclusion

This paper adopts the audit report of AH-share listed companies from 2014-2018 as the research object to study the impact of the disclosure of key audit matters on the debt financing cost, and is divided into four and non-four according to the types of firms that issue the report. The study found that the disclosure of key audit matters can reduce the debt financing cost; the number of key audit matters disclosed is proportional to the reduction of debt financing cost, and because the four groups weaken the debt financing cost according to their professionalism and reputation.

The contribution of this paper is that the cost of debt financing and for policy makers can observe the effect of audit report reform for the next step. Follow-up research can conduct further analysis on the basis of this paper, subdivide the types of key audit items, study and disclose the impact of key audit items heterogeneity on debt financing cost; or examine the impact of the accuracy of key audit items on debt financing cost.

Acknowledgments

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