

The Specific Information of Key Audit Matters and Equity Risk in China: Mechanism Analysis Based on Implied Equity Duration

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Abstract: This paper applies the method of text analysis to measure the proportion of the specific information of key audit matters in audit reports of listed companies in China. We find that after the beginning of the new audit report reform in China, the proportion of the specific information in the key audit matter of the audit report has a positive association with the proportion of equity idiosyncratic risk in total risk and a negative association with the proportion of equity systematic risk in total risk in the audit report year. The specific information of the key audit matter will increase the proportion of equity idiosyncratic risk in total risk and reduce the proportion of equity systematic risk in total risk in the next year of the audit report year. We also carry out the mechanism test through the implied equity duration model. The results show that (1) the common mechanism for associations between the proportion of the specific information of the key audit matter and each of equity idiosyncratic and systematic risks in the audit report year is the association between the proportion of the specific information and the basic operating and financial features (the ratio of the implied equity duration to the cost of equity capital) of the company in the audit report year. This confirms the reliability of the content of key audit matters based on the company's operating and financial conditions. (2) The influencing mechanisms of the proportion of the specific information of the key audit matter in the audit report on equity idiosyncratic and systematic risks in the next year of the audit report year are the influences of the specific information proportion on market perceptions of equity idiosyncratic and systematic risks (the volatility of the company-level change of expected return and the sensitivity of the market-level change of expected return respectively) in the next year. This shows that key audit matters provide incremental information to the decision-making of investors in the security market. In conclusion, the implementation of the new audit report reform in China plays an important role in promoting the high-quality development of the security market.

1. Introduction

Audit is of great significance to the interests of users of financial information, and the audit report as a summary of the audit work is one of the most important channels to achieve communication between investors and auditors. The traditional audit report only required the auditor to issue specific types of audit opinions. The audit report used templated forms of expression, so it is generally believed that the information provided by the audit report to investors is quite limited. Therefore, regulatory agencies including IAASB, PCAOB and China's Auditing Standards Board have carried out audit report reform, the key point of which is to add the key audit matters in the audit report. In the paragraph of the key audit matters, the auditors will describe the key audit matters and introduce the implementation of the corresponding audit procedures. In December 2016, the Ministry of Finance of China promulgated the Auditing Standards for Certified Public Accountants of China No. 1504 - Communicating Key Audit Matters in Audit Reports and revised 10 other standards related to audit reports, which have been implemented in the range of listed companies since January 2018, marking the formal beginning of comprehensive implementation of audit report reform in China. The economic consequences of the new audit report reform have been widely discussed in academia.

In the research on the impact of the new audit report reform on audit quality, some scholars believe that the implementation of the new audit report reform has improved the audit quality. Qian Sai et al. (2022) use the relevant empirical data after the new audit standards were issued by the Ministry of Finance of China, and find that the key audit matter section in the audit report limits the subjective reasoning behavior of auditors and enhances the professional skepticism of auditors by triggering rational constraints, thus improving the audit quality and significantly reducing the level of accrual earnings management of the audited company [1]. Gutierrez et al. (2016) study the changes in audit quality after the audit report reform, taking the companies that had implemented the new audit standards in the UK as samples and those that had not implemented the new audit standards as the control group. The results show that there is no significant change in audit quality before and after the reform.

There's a widespread discussion on whether the new audit report reform can improve the communication value of audit report and provide incremental information for capital market investors. Researchers generally maintain a positive attitude towards the role of the new audit report reform in enhancing the information value of audit reports. Wang et al. (2018) find that before and after the audit reform the change of the cumulative abnormal return whose audit reports contain the key audit matters is significantly higher than that of the companies whose audit reports don't contain the key audit matters, indicating that the key audit matters improve the communication value of the audit report. [2] Huayun Zhai et al. (2021) study China's new audit report reform and find that key audit matters can increase specific information at the company level and reduce equity price synchronism, and the role of key audit matters will be more obvious in companies with fewer institutional investors.

Lin Liao et al. (2023) use the data of Chinese listed companies from 2012 to 2019 and find that there is no connection between the report of key audit matters and risk of equity price crash, and the mechanism test finds that the report of key audit matters would not reduce information opacity and opportunistic behavior of management.

This paper has the following marginal contributions to the research field of the economic impact of the new audit report reform on the capital market. (1) Different from the previous literatures, which mainly select the number, word count and specific subjects of key audit matters as research objects, our paper applies the method of text analysis to get the text similarity to measure the proportion of specific information of key audit matters, through which the association of the

contents of key audit matters in the audit report with the proportions of equity systematic and idiosyncratic risks and the influence of key audit matters on the proportions of two kinds of risks can be studied more deeply. It is found that there is a positive correlation between the specific information proportion of the key audit matter and equity idiosyncratic risk proportion and a negative correlation between the specific information proportion of the key audit matter and equity systematic risk proportion in the audit report year. It is also found that the specific information proportion of the key audit matter puts a positive effect on equity idiosyncratic risk proportion and puts a negative effect on equity systematic risk proportion in the next year of the audit report year. The negative effect of the specific information on equity systematic risk proportion and their negative association have not been proposed in previous literature. (2) Different from the previous literatures on the mechanism of associations between the new audit report and the security market, we apply the implied equity duration model to study mechanisms of associations of the specific information proportion of the key audit matter with the equity idiosyncratic and systematic risk in the audit report year. The implied equity duration model as a new explanatory tool is applied by us to propose the association between the specific information of key audit matters and the company's operating and financial features. We find that the common mechanism for associations between the proportion of the specific information of the key audit matter and each of the equity idiosyncratic and systematic risk in the audit report year is the association between the proportion of the specific information and the basic operating and financial features (the ratio of the implied equity duration to the cost of equity capital) of the company in the audit report year. Through a new implied-equity-duration-related measurement index of the company's operating and financial features, we demonstrate that the content of key audit matters is reliable based on the company's operating and financial conditions. (3) Different from the previous literatures on the mechanism of impacts of the new audit report reform on the security market, we apply the implied equity duration model to study mechanisms of effects of the specific information proportion of the key audit matter on the equity idiosyncratic and systematic risk in the next year of the audit report year. The influencing mechanisms of the proportion of the specific information of the key audit matter on the equity idiosyncratic and systematic risk in the next year of the audit report year are the influences of the specific information proportion on the market perception of the equity idiosyncratic and systematic risk (the volatility of the company-level change of expected return and the sensitivity of the market-level change of expected return respectively) in the next year. Through the two new implied-equity-duration-related measurement indexes of equity risk perceptions, we demonstrate that key audit matters provide incremental information to the decision-making of investors in the security market. Therefore, through our mechanism analysis this paper affirms the positive role played by the new audit report reform in the high-quality development of the capital market in China.

The remainder of this paper proceeds as follows: Section 2 reviews literature and proposes research hypothesis. Section 3 designs the research. Section 4 shows the result of empirical study. Section 5 analyzes related mechanisms. Section 6 concludes.

2. Literature and Research Hypothesis

2.1. Literature Review

2.1.1 Systematic Risk and Idiosyncratic Risk of Equity

Security risk can be divided into systematic risk and idiosyncratic risk (Barigozzi M. et al., 2014. Abdoh H. et al., 2017) [3-4] Earlier studies on risk structure of China's equity market show that with the development and improvement of the market mechanism, the proportion of systematic risk

in China's equity market has shown a decreasing trend (Shi Donghui, 1996. Zhang Zongxin et al., 2005), but still accounts for a relatively high percentage compared to mature capital markets such as markets in Europe and the United States (Shi, Donghui, 1996. Chen, Jian et al., 2007). Song Fengming and Jiang Jie (2003) reach a similar conclusion by comparing the volatility of China's A-share equities with those of the constituent stocks of the Standard & Poor's 500 Index. [5]

Systematic risk has been a hot topic in capital market research. Systematic risk is often portrayed as Beta coefficient, which can be regarded as a function of a series of influencing factors regarding macroeconomics, industry characteristics, and company fundamentals (ROSS S A, 1994). Some studies have found that Beta coefficient, turnover rate, book-to-market ratio and income-price ratio are important risk factors in China's equity market (Lorin, 2003). The causes of systematic risk can be broadly categorized into limited rationality within the market, external economic cycles and policy interventions (Tao Ling and Zhu Ying, 2016). [6]

Regarding idiosyncratic risk, Huang Bo et al. (2006) separate out equity idiosyncratic risk based on the asset pricing model and examine the changing trend and its functions to explain cross-sectional returns. They find that equity idiosyncratic risk could explain cross-sectional returns and systematic risk can not fully explain the stock return so that equity idiosyncratic risk couldn't be ignored. [7] Bégin et al. (2020) construct a "GARCH-jump" model with respect to systematic risk and idiosyncratic risk and find that idiosyncratic risk could explain about 28% of stock price volatility by examining yields and options. Existing theories and studies also suggest that corporate financing constraints are positively correlated with idiosyncratic risk, and factors such as ownership property, enterprise size and product competitiveness are important factors affecting corporate financing constraints (Deng Kobin and Zeng Haijun, 2014). Bennett et al. (2003) find that one of the important sources of equity idiosyncratic fluctuations is the change in institutional investors' stockholding preferences.[8] Liu Weiqi et al. (2014) find that investor sentiment and cognition can seriously affect stock pricing and idiosyncratic volatility. The interplay of sentiment between individual and institutional investors is asymmetric and institutional investors have a stronger influence on the sentiment of individual investors. [9]

2.1.2 The Impact of the New Audit Report Reform on the Company's Equity Risk

Scholars generally affirm the impact of the incremental information of new audit report on the company's equity risk. Beyer et al. (2010) find that the disclosure of new audit reports would have impacts on some indicators, including the company's cost of capital, liquidity and risk'[10] Kothari (2009) and Campbell (2014) et al. find that the audit report after reform may affect the financial statement users' expectations and evaluations of the company's future cash flow and discount rate and update their views on the reliability of the company's financial report. [11] Jin, Myers (2006) find that key audit matters may convey specific information of the firm level because the new auditing standards require auditors not only to disclose key matters in an audit but also to explain why they disclose each key matter. [12] This will affect investors' assessment of the uncertainty of future cash flow so that new information will be incorporated into the equity price through trading activities. Christensen, Glover and Wolfe (2014) find that the information of key audit matters would affect non-professional investors' risk assessment and investment decision of the target company.

The existing literature mainly studies the impact brought by new audit reports on the capital market from the perspectives of the number of key audit matters, the number of words and the subjects involved. Some scholars have carried out studies relevant to the content of idiosyncratic information contained in the audit report. However, fewer studies have directly studied the relationship between the specific content of key audit matters and composition of equity risk (equity

systematic and idiosyncratic risk) and the influence of the former on the latter. To enrich the research in this area, we measure the proportion of specific information in the key audit matter using the textual analysis to test the related associations and influences. We utilize the implied equity duration model to provide a brand new idea for the explanation of the mechanism of the relationship between the specific information of key audit matters and equity systematic and idiosyncratic risk and the influence of the specific information on equity systematic and idiosyncratic risk. We also find the differences and commonalities of different mechanisms related to systematic and idiosyncratic risks.

2.2. Research Hypothesis

The new audit report reform requires auditors to disclose key audit matters and corresponding auditing procedures. The key audit matters and auditing procedures in the audit report provides company-specific information based on specific audit work, thus overcoming the defect that the audit report before the new audit report reform can not fully reflect the differentiated information of the audited company because it only reports the audit conclusion. Song Jianbo et al. (2022) divides the information provided by audit reports to investors into standard information and specific information based on the application of textual similarity. [13] Standard information is the information that reflects the general characteristics of the industry, while specific information is the specific information at the company level. If the text information of key audit matters and corresponding audit procedures contained in the audit report is less similar (the degree of differentiation is higher), the proportion of specific information provided in the audit report will be higher than that of standard information.

On the premise that the audit reports in China generally have the reliability of the content based on the company's operating and financial features, we speculate that if the key audit matters in the audit report contain a higher proportion of company-specific information, the proportion of firm-level specific factors affecting investors' decisions in the audit report year is higher and the proportion of equity idiosyncratic risk in total risk is higher (the proportion of equity systematic risk in total risk is lower). Therefore we propose the hypothesis **H1**.

H1: The proportion of the specific information of the key audit matter is associated positively with equity idiosyncratic risk proportion and negatively with equity systematic risk proportion in the audit report year.

Since stock price synchronicity reflects the degree of incorporation of company specific information into stock price, the academic community takes stock price synchronicity as an index to measure the efficiency of information transmission in the stock market (Zhu Hongjun et al., 2007). Wang et al. (2019) test and find that the implementation of new audit reports reduces equity price synchronicity. [14] This indicates that the information provided by the key audit matter in the audit report after the audit report is issued will supplement the information required by investors and affect their investment decisions. They also find the impact of new audit reports and key audit matters on equity price synchronicity is more obvious in companies with higher information asymmetry. This shows that the incremental information provided by the new audit report alleviates the degree of information asymmetry. Based on these findings, this paper further speculates that if the proportion of firm-level specific information contained in the content of key audit matters in the audit report is higher, the proportion of firm-level specific factors affecting investors' decisions in the next year of the audit report year is higher and the degree of the decline of synchronicity of the audited company's stock price is greater. Combined with the fact that higher stock price synchronicity corresponds to higher proportion of equity systematic risk in total equity risk (lower proportion of equity idiosyncratic risk in total equity risk), we propose the hypothesis **H2**.

H2: The proportion of the specific information of the key audit matter increases the proportion of equity idiosyncratic risk in total risk in the next year of the audit report year and reduces the proportion of equity systematic risk in total risk in the next year of the audit report year.

3. Research Design

3.1. Samples and Data

We download and sort out the financial data and audit reports of China's A-share listed companies from 2016 to 2022 from the CSMAR database. The original sample observations are 34,081. 13,878 observations are eliminated due to the absence of independent variables, dependent variables and control variables, and the number of the remaining sample observations is 20,203. Considering the impact of extreme values on the research results, this paper winsorizes all continuous variables at the upper and lower 1% quantiles.

3.2. Definition of variables

3.2.1. Equity Idiosyncratic Risk

When calculating idiosyncratic risk (*IVOL*), we refer to the five-factor model proposed by Fama et al. (2015) and conduct the regression of weekly equity return on weekly five factors. Since the latest time of the audit report issue is the end of April in each year, our regression adopts the market data from May to December each year when testing the impact of key audit matters on equity price risk, while the market data of the whole year is adopted for the regression of testing the association between key audit matters and equity price risk. Based on the group of equities and years, we conduct group regressions on the data of each equity in each year according to Equation (1) and obtain the residual error of the regression data of each equity in each year. There are nearly about 35 or 52 residual errors (35 or 52 weeks) of each equity in each year. And the standard deviation of these residual errors is the idiosyncratic volatility (*IVOL*) of each equity in each year, which could measure idiosyncratic risk.

$$Return_{i,t} = \beta_0 + \beta_1 RiskPremium_{i,t} + \beta_2 SMB_{i,t} + \beta_3 HML_{i,t} + \beta_4 RML_{i,t} + \beta_5 CMA_{i,t} + \varepsilon_{i,t} \#(1)$$

3.2.2. Equity Systematic Risk

When calculating systematic risk, we refer to the *CAPM* model and conduct the regression of weekly equity return on weekly market risk premium factor according to Equation (2) (The data period is selected in the same way as the data period of idiosyncratic risk). In Equation (2), *Return* is the weekly return considering cash dividend and *RiskPremium* is the market risk premium factor calculated as the difference between the weekly market return considering cash dividend reinvestment and the weekly risk-free interest rate (the three-month fixed-term deposit benchmark interest rate announced by the People's Bank of China). The estimator of obtained by group regression on the return of each equity in each year according to equation (2) is systematic risk (*Beta*) of each equity in each year.

$$Return_{i,t} = \beta_0 + \beta_1 RiskPremium_{i,t} + \varepsilon_{i,t} \#(2)$$

3.2.3. The Proportion of Equity Idiosyncratic Risk in Total Risk

The proportion of equity idiosyncratic risk in total risk is defined as the ratio of equity idiosyncratic return volatility to the total return volatility. If *Ivolper* is higher, the proportion of

equity systematic risk in total risk is lower.

3.2.4. The Proportion of Specific Information in Key Audit Matters

Referring to the existing research ideas and methods on text similarity (Hanley and Hoberg, 2010. Song and Feng, 2022), we use the Vector Space Model (VSM) based on the Bag of Words (BOW) method to calculate the text similarity of the content of key audit matters in the audit report and then calculate the proportion of specific information of the key audit matters. The steps of text similarity calculation are as follows:

The similarity of the texts of key audit matters of the firm and the industry is calculated as the included angle cosine of the firm and the industry's word frequency vectors, as shown in equation

$$\text{Similarity}(FIRM_{i,t}, FIRMS_t) = \frac{\overrightarrow{FIRM_{i,t}} \times \overrightarrow{FIRMS_t}}{|\overrightarrow{FIRM_{i,t}}| \times |\overrightarrow{FIRMS_t}|} \#(3)$$

We obtain the text similarity (SIM_Total , $SIM_Description$, SIM_Method) of the whole content of key audit matters, the description section and the auditing procedure section. The domain of the text similarity is (0, 1]. Then the obtained text similarity is multiplied by (-1) respectively to obtain the specific information proportion of key audit matters ($Idio_Allwords$, $Idio_Description$, $Idio_Method$). The greater specific information proportion means the lower text similarity of the company and the industry's key audit matters.

3.3. Specification of Model

$$IVOLPER_{i,t} = \beta_0 + \beta_1 Idio_{i,t} + \beta \sum Controls_{i,t} + IndustryFE + YearFE + \varepsilon_{i,t} \#(4)$$

$$IVOLPER_{i,t} = \beta_0 + \beta_1 Idio_{i,t-1} + \beta \sum Controls_{i,t} + IndustryFE + YearFE + \varepsilon_{i,t} \#(5)$$

The model of Equation (4) is used to test the association between the proportion of specific information in the key audit matter (the proportion of specific information in the whole content, the description section and the corresponding auditing procedures of the key audit matter, denoted by $IDIO_All$, $IDIO_DES$, $IDIO_METHOD$) and the proportion of equity idiosyncratic risk in total risk in the audit report year to test **H1**. The model of Equation (5) is used to test the effect of the proportion of specific information in the key audit matter on the proportion of equity idiosyncratic risk in total risk in the next year of the audit report year to test **H2**. At the same time, we can also get the conclusions about the proportion of equity systematic risk through the models of Equation (4) and Equation (5).

Referring to literatures on influencing factors of idiosyncratic risk and systematic risk, this paper controls the following variables: firm size ($SIZE$), financial leverage (LEV), book-to-market ratio (BM), business risk ($BUSIRISK$), operating risk ($OPERRISK$), growth rate ($GROWTH$), tangible asset ratio ($TANGIBLE_ASSET$), KZ index of financing constraints (KZ), annual return (RET), equity illiquidity ($ILLIQ$), accounting information quality (IFQ), firm age ($FIRM_AGE$) and the proportion of top ten major shareholders ($TOP10HOLDER$). Table 1 presents the variables and their definitions.

Table 1: Variable Explanation

Variable	Definitions and Measurements
BETA	Systematic risk. The coefficient of regression of return and market risk premium factor. The calculation method is shown in the section of definition of variables.
IVOL	Idiosyncratic risk. The standard deviation of residuals of the regression of equity return, market risk premium factor, market capitalization factor, book-to-market ratio factor, profitability factor and investment pattern factor.

	The calculation method is shown in the section of definition of variables.
IVOL_PER	The proportion of equity idiosyncratic risk in total risk. Defined as the ratio of equity idiosyncratic return volatility to the total return volatility.
D	Implied equity duration. By introducing Macaulay duration into equities, implied equity duration is obtained by adding durations of equities in the finite period and the infinite period, assuming that the cash flow of equities in the infinite period is perpetual annuity (Dechow et al., 2004). The calculation method is shown in the section of mechanism test.
D_FAC	Defined as $D/(1+R)$. It reflects the basic feature of company's operation and finance.
D_FACm	Defined as the ratio of the company and the market portfolio's D_FAC.
IVOL_r	The volatility of firm-level expected return change. It could be calculated given IVOL and D_FAC according to Equation 10.
BETA_r	The sensitivity of the market-level change of equity's expected return. It could be calculated given BETA and D_FACm according to Equation 11.
R	Equity capital cost. The calculation method refers to the MPEG calculation method provided by Xinshu Mao.
IDIO_All	The proportion of the specific information of the whole content in key audit matters. The calculation method is shown in the definition of variables.
IDIO_DES	The proportion of the specific information of the description section in key audit matters. The calculation method is shown in the definition of variables.
IDIO_METHOD	The proportion of the specific information of the corresponding auditing procedure section in key audit matters. The calculation method is shown in the definition of variables.
SIZE	Firm size. Calculated as the logarithm of the book value of the company's total assets.
LEV	Financial leverage. Calculated as the ratio of total liabilities to total assets.
BM	Book-to-market ratio. Calculated as the ratio of the book value of equity to the market value of firm.
BUSIRISK	Business risk. Calculated as the standard deviation of percentage changes in annual gross profit over the past 5 years.
OPERRISK	Operation risk. Calculated as the standard deviation of percentage changes in cash flow from operating activities over the past 5 years.
GROWTH	Growth rate. Calculated as the growth rate of total operating income.
TAN_ASSET	Tangible asset ratio. Calculated as the ratio of the sum of the net fixed asset and inventory to total asset.
KZ	Financial constraint. Referring to the calculation method proposed by Kaplan and Zingales (1997), the larger the KZ index is, the higher the degree of financial constraints faced by the firm is.
RET	Equity annual return. Annual equity return from the end of last year to the end of this year.
ILLIQ	Equity illiquidity. With reference to Amihud (2002), it's calculated as the mean of daily illiquidity index in year t. Daily illiquidity index is calculated by the ratio of the absolute value of daily return to the trading volume of the day.
IFQ	Accounting information quality. With reference to the Jones model modified by Dechow (1995), the manipulated accrual is used to reflect the quality of accounting information. The larger manipulated accrual means the larger room for earnings management and the lower quality of accounting information.
FIRM_AGE	The number of years the company has been listed
TOP10HOLDER	The proportion of top ten major shareholders

4. Empirical Study

4.1. Descriptive Statistics

Table 2 reports the results of descriptive statistics of main variables and control variables in this

paper. The mean and the median of *Idio_All* (reflecting the proportion of specific information of the whole content of key audit matters) is -0.701 and -0.718 respectively, which means that about 30% of information contained in the whole content of key audit matters is firm-level specific information on average. Among them, the proportion of specific information contained in the text of corresponding audit procedure of key audit matters is about 10% lower than that in the text of the description of key audit matters, indicating that the content of specific information in the corresponding audit procedure is lower than that in the description of key audit matters.

Table 2: Results of descriptive statistics

Variable	Mean	SD	Median	Min	Max
<i>BETA</i>	0.663	0.828	0.696	-1.339	2.878
<i>D_FACm</i>	1.555	0.864	1.456	0.284	3.974
<i>BETA_r</i>	0.632	0.869	0.456	-0.905	4.044
<i>IVOL</i>	0.045	0.019	0.043	0.002	0.097
<i>D_FAC</i>	15.31	8.248	14.60	3.455	34.76
<i>IVOL_r</i>	0.004	0.003	0.003	0.001	0.014
<i>IVOL_PER</i>	0.806	0.154	0.847	0.388	0.998
<i>R</i>	0.103	0.0640	0.0930	0.0170	0.465
<i>Idio_All</i>	-0.701	0.105	-0.718	-0.875	-0.380
<i>Idio_Description</i>	-0.598	0.105	-0.611	-0.802	-0.305
<i>Idio_Method</i>	-0.710	0.106	-0.727	-0.890	-0.387
<i>SIZE</i>	22.14	1.404	21.99	18.95	26.27
<i>LEV</i>	0.412	0.205	0.399	0.057	0.945
<i>BM</i>	0.645	1.565	0.370	0.017	13.92
<i>BUSIRISK</i>	0.042	0.060	0.022	0.001	0.389
<i>OPERISK</i>	0.044	0.038	0.033	0.003	0.215
<i>Growth</i>	0.170	0.441	0.104	-0.629	2.894
<i>Fixed_ASSET</i>	0.195	0.151	0.162	0.002	0.670
<i>TAN_ASSET</i>	0.925	0.091	0.957	0.522	1
<i>KZ</i>	1.086	2.416	1.362	-7.040	6.396
<i>RET</i>	0.007	0.438	-0.084	-0.614	2.144
<i>ILLIQ</i>	0.252	1.273	0.029	0.002	10.66
<i>IFQ</i>	-0.001	0.085	0	-0.299	0.263
<i>FIRM_AGE</i>	9.761	8.613	8	-7	32
<i>TOP10HOLDER</i>	59.62	15.58	60.40	23.78	94.92

4.2. Regression results

The regression results exploring the association between the proportion of key audit matters' specific information and the proportion of equity idiosyncratic risk are shown in Table 3. The regression coefficients of the proportion of specific information contained in the text information of the whole content and the description of key audit matters are all positive, consistent with the prediction of the research hypothesis, which are 0.024 and 0.026 respectively and both significant at the level of 10%. (the regression coefficient of the proportion of specific information contained in the text of the corresponding audit procedures of the key audit matter is not significant). The two coefficients represent that for every 1% increase in the proportion of specific information contained in the text information, the proportion of equity idiosyncratic risk in the audit year increases by 0.024% and 0.026% respectively. This shows that if the proportion of specific information contained in the whole content and description of key audit matters is higher, the proportion of firm-level idiosyncratic factors in all the factors that affect investors' decisions in the audit report year is higher and the proportion of equity idiosyncratic risk in the audit report year is higher (the

proportion of equity systematic risk is lower). Therefore, we confirm the hypothesis **H1**.

Table 3: Regression results of the association between the proportion of specific information of key audit matters and equity risk composition

	(1)	(2)	(3)
Variable	<i>IVOL_PER</i>	<i>IVOL_PER</i>	<i>IVOL_PER</i>
<i>IDIO_All</i>	0.024*		
	(1.749)		
<i>IDIO_DES</i>		0.026*	
		(1.813)	
<i>IDIO_METHOD</i>			0.019
			(1.348)
<i>SIZE</i>	-0.010***	-0.011***	-0.011***
	(-2.727)	(-2.812)	(-2.787)
<i>LEV</i>	-0.012	-0.011	-0.011
	(-0.843)	(-0.799)	(-0.810)
<i>FIRM_AGE</i>	0.044***	0.044***	0.044***
	(59.338)	(57.249)	(58.040)
<i>BM</i>	-0.063***	-0.063***	-0.063***
	(-9.272)	(-9.287)	(-9.288)
<i>BUSIRISK</i>	-0.001	-0.001	-0.001
	(-0.048)	(-0.034)	(-0.058)
<i>Growth</i>	0.001	0.001	0.001
	(0.464)	(0.482)	(0.489)
<i>RET</i>	0.034***	0.034***	0.034***
	(16.146)	(16.153)	(16.160)
<i>TAN_ASSET</i>	-0.033	-0.031	-0.032
	(-1.495)	(-1.403)	(-1.456)
<i>KZ</i>	0.002**	0.002**	0.002**
	(2.220)	(2.156)	(2.170)
<i>ILLIQ</i>	-0.295***	-0.296***	-0.296***
	(-3.838)	(-3.863)	(-3.854)
<i>IFQ</i>	0.001	0.002	0.002
	(0.069)	(0.168)	(0.138)
<i>TOP10HOLDER</i>	0.002***	0.002***	0.002***
	(8.929)	(8.952)	(8.951)
<i>Constant</i>	0.596***	0.597***	0.600***
	(6.371)	(6.350)	(6.382)
Fixed effects of industry and time	YES	YES	YES
Observations	19,360	19,360	19,360
Number of firms	3,966	3,966	3,966
Adj.R ²	0.593	0.593	0.593
Robust t-statistics in parentheses			
*** p<0.01, ** p<0.05, * p<0.1			

The regression results of exploring the impact of the specific information proportion of key audit matters on the proportion of equity idiosyncratic risk are shown in Table 4. The regression coefficients of the proportion of specific information contained in the text of the whole content and the corresponding audit procedures are 0.033 and 0.042 respectively, which are significant at the levels of 10% and 5% respectively (the regression coefficient of the proportion of specific information contained in the text of the description of the key audit matter is not significant). The two regression coefficients represent that for every 1% increase in the proportion of specific information contained in texts of the whole content and the corresponding audit procedures of the

key audit matter, the proportion of equity idiosyncratic risk in the next year will increase by 0.033% and 0.042% respectively. This shows that the higher proportion of specific information contained in the whole content and corresponding audit procedure of the audit report leads to higher proportion of firm-level idiosyncratic factors in all the factors that affect investors' decisions and higher proportion of equity idiosyncratic risk in the next year of the audit report year. The key audit matter in the new audit report provides relevant information of the audited firm for investors to make investment decisions after the audit report is released. And the relevant information is built into the equity price in the next year of the audit report year. Therefore, we confirm the hypothesis **H2**.

Table 4: Regression results of the influence of the proportion of specific information of key audit matters on equity risk composition

Variable	(1)	(2)	(3)
	<i>IVOL_PER</i>	<i>IVOL_PER</i>	<i>IVOL_PER</i>
<i>IDIO_All</i>	0.033** (2.200)		
<i>IDIO_DES</i>		0.020 (1.352)	
<i>IDIO_METHOD</i>			0.042*** (2.843)
<i>SIZE</i>	-0.020*** (-4.451)	-0.020*** (-4.418)	-0.020*** (-4.426)
<i>LEV</i>	-0.010 (-0.660)	-0.010 (-0.619)	-0.010 (-0.641)
<i>FIRM_AGE</i>	0.074*** (68.991)	0.074*** (68.617)	0.074*** (68.570)
<i>BM</i>	-0.046*** (-5.893)	-0.047*** (-5.958)	-0.047*** (-5.919)
<i>BUSIRISK</i>	0.023 (0.892)	0.021 (0.825)	0.021 (0.840)
<i>Growth</i>	0.001 (0.574)	0.001 (0.528)	0.001 (0.541)
<i>RET</i>	0.029*** (13.234)	0.029*** (13.249)	0.029*** (13.248)
<i>TAN_ASSET</i>	-0.028 (-1.053)	-0.027 (-1.039)	-0.028 (-1.064)
<i>KZ</i>	0.001 (1.365)	0.001 (1.300)	0.001 (1.333)
<i>ILLIQ</i>	-0.258*** (-3.527)	-0.259*** (-3.530)	-0.259*** (-3.530)
<i>IFQ</i>	0.009 (0.682)	0.010 (0.733)	0.010 (0.701)
<i>TOP10HOLDER</i>	0.002*** (9.792)	0.002*** (9.827)	0.002*** (9.805)
<i>Constant</i>	0.339*** (3.025)	0.334*** (2.980)	0.342*** (3.047)
Fixed effects of industry and time	YES	YES	YES
Observations	16,823	16,823	16,823
Number of firms	3,951	3,951	3,951
Adj.R ²	0.641	0.641	0.641
Robust t-statistics in parentheses			
*** p<0.01, ** p<0.05, * p<0.1			

5. MECHANISM TEST

5.1. Theoretical Basis

5.1.1. Definition of Implied Equity Duration

People have constructed the concept of duration for fixed income securities, by which investors can construct an Immunization Strategy for fixed income securities investment in the bond market. Dechow et al. find that the concept of duration can be introduced from the bond market to the security market to construct the implied equity duration.^[15] The calculation method for the implied equity duration is shown in the equation (6).

$$D = \frac{\sum_{t=1}^T t \times \left(\frac{CF_t}{(1+r)^t} \right)}{\sum_{t=1}^T \frac{CF_t}{(1+r)^t}} \times \frac{\sum_{t=1}^T \frac{CF_t}{(1+r)^t}}{P} + \left(T + \frac{1+r}{r} \right) \times \frac{P - \sum_{t=1}^T \frac{CF_t}{(1+r)^t}}{P} \quad \#(6)$$

While Dechow et al. find that for the security with longer implied equity systematic risk *Beta* tends to be higher but the cost of equity capital tends to be lower, thus pointing out the irrationality of investors' behavior, we find that from 2016 to 2022 in China's market for the security with longer implied equity systematic risk *Beta* tends to be lower and the cost of equity capital also tends to be lower. Chinese investors require higher risk compensation for equities with higher equity systematic risk, which indicates that China's equity market investment behaviors during 2016 to 2022 were relatively rational to some extent. With the increase of implied equity duration, realized equity return of the equity first falls and then rises, as shown in Figure 1.

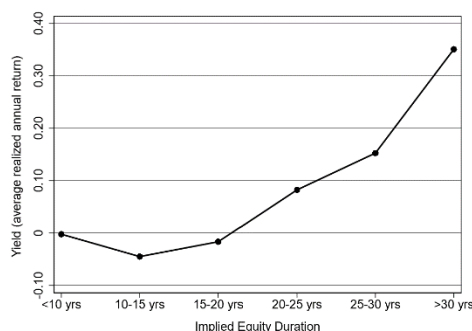


Figure 1: The curve of implied equity duration and realized equity return

5.1.2. Theoretical Prediction Related to Implied Equity Duration

Dechow et al. transform the *Beta* of the realized return on a security into the product of D_m and $\beta(\Delta r, \Delta r_m)$ (see Equation 7). In Equation (7), $\beta(h, h_m)$ represents the sensitivity of the realized return of securities to changes in the realized return of the market portfolio (systematic risk *Beta* in this paper). D represents the implied equity duration of securities. D_m represents the implied equity duration of the market portfolio. And r represents the expected return of securities (cost of equity capital), r_m represents the expected return of the market portfolio. $\beta(\Delta r, \Delta r_m)$ represents the sensitivity of the market-level change of equity's expected return, which is the sensitivity of changes in the expected return of the security to changes in the expected return of the market portfolio. In order to carry out the mechanism test in this paper, we set the variable D_FACm as the first factor $\frac{D}{D_m} \times \frac{(1+r_m)}{(1+r)}$ in Equation (7). D_FACm is the ratio of D_FAC of the firm to the D_FAC of the market portfolio, which reflects the relative level of basic features of operating and financial

aspects of the company. From Equation (7), Dechow et al. conclude that *Beta* of the realized return of the security increases with the increase of the implied equity duration. There are a large number of empirical researches documenting strong common shocks to the expected return of securities. Campbell and Mei (1993) study whether the generation of systematic risk ($\beta(h, h_m)$ in Equation (7)) mainly comes from the common shock on the expected return of companies in the security market or the common shock on the future cash flow of companies in the securities market, and their conclusion supports the former shock [16] Cornell (1999) finds that *Beta* coefficient is associated with price-earning ratio, dividend-to-market ratio and growth forecast. Combined with the negative correlation between implied equity duration and net-profit-to-market ratio and book-to-market ratio mentioned in the previous section, Dechow et al. argue that Cornell's study provides indirect evidence to support the conclusion that the *Beta* of realized returns on the security increases with the implied equity duration. [17]

$$\beta(h, h_m) = \sigma(h, h_m) / \sigma^2(h_m) \approx \frac{D}{D_m} \times \frac{(1 + r_m)}{(1 + r)} \times \beta(\Delta r, \Delta r_m) \#(7)$$

Dechow et al. provide an approximate relationship between the idiosyncratic volatility and the volatility of firm-level changes in expected returns. As shown in Equation (8), $\sigma(h_f)$ represents the volatility of equity return derived from firm-level factors (the idiosyncratic volatility *IVOL* in this paper). *D* represents the implied equity duration of securities, and *r* represents the expected return of securities (cost of equity capital). $\sigma(\Delta r_f)$ represents the volatility of firm-level expected return change, which is caused by the firm-level factor. They find that idiosyncratic volatility increases with the firm's implied equity duration's increase. To conduct the mechanism test in this paper, we set the variable *D_FAC* as the first factor $D/(1+r)$ in Equation (8). *D_FAC* reflects the basic features of the company's operation and finance (the implied equity duration *D* reflects the operating features related to the company's cash flow and the cost of equity capital *r* reflects the company's financial features). As the implied equity duration *D* grows, the cost of equity capital *r* tends to fall (shown in the descriptive statistics section of this paper), so *D_FAC* tends to rise.

$$\sigma(h_f) \approx \frac{D}{1 + r} \sigma(\Delta r_f) \#(8)$$

5.2. Mechanism Test Analysis

In order to explore the mechanism of the association between the proportion of the specific information of key audit items and the composition of equity risks and the impact of the former on the latter, we conduct mechanism tests related to idiosyncratic risk and systematic risk respectively. The theoretical prediction of the implied equity duration model provides the basis for our mechanism test.

5.2.1. Mechanism Analysis Related to the Proportion of Specific Information of Key Audit Matters and Equity Systematic Risk

According to Equation (7), the idiosyncratic volatility can be decomposed into two factors, which are $D_FACm = \frac{D}{D_m} \times \frac{(1+r_m)}{(1+r)}$ and $\beta(\Delta r, \Delta r_m)$. *D_FACm* is the relative level of basic features of the company's operation and finance. $\beta(\Delta r, \Delta r_m)$ is the sensitivity of the market-level change of equity's expected return, reflecting the market perception of the systematic equity risk. Through the regression analysis between the proportion of specific information contained in the key audit matter and each of these two factors respectively, we can explore the mechanism of the association of the contents of key audit matters with equity systematic risk and the influence of the former on the latter.

In order to explore the mechanism of the negative association between the proportion of specific information contained in the key audit matter and systematic risk in the audit report year, we conduct the regression of the proportion of specific information contained in the key audit matter on the two aforementioned decomposition factors D_FACm and $\beta(\Delta r, \Delta r_m)$ of systematic risk in the audit report year. Panel A in Table 5 shows the corresponding regression results. The regression coefficients of the proportion of specific information of text of the whole content, the description and the corresponding audit procedure of key audit matters on D_FACm are 0.142, 0.187 and 0.114 respectively, significant at the levels of 5%, 1% and 10% respectively, which indicates that with the increase in the proportion of specific information in the key audit matter, D_FACm tends to rise in the audit report year (which is consistent with the conclusion in mechanism test (1)), leading to the increase of systematic risk in the audit report year. However, the conclusion we draw in the main regression model is that there is a negative association between the proportion of specific information and systematic risk, which needs to be explained by the negative association between the proportion of specific information and $\beta(\Delta r, \Delta r_m)$. The regression coefficients of the proportion of specific information contained in the text of the whole content and the corresponding audit procedure of the key audit matter on $\beta(\Delta r, \Delta r_m)$ in the audit report year are -0.303 and -0.367 respectively, both significant at the level of 1% (the regression coefficient of the proportion of specific information contained in the description of the key audit matter is not significant). It shows that with the increase of the proportion of specific information, $\beta(\Delta r, \Delta r_m)$ tends to decrease in the audit report year, which leads to the decrease of systematic risk. Therefore, the negative association between the proportion of specific information contained in the key audit matter and $\beta(\Delta r, \Delta r_m)$ is stronger than the positive association between the proportion of specific information and D_FACm , which means the content of the key audit matter is more closely related to the market perception of equity systematic risk (the sensitivity of the market-level change of equity's expected return) than to the company's relative level of basic operational and financial features. The mechanism of negative association between the proportion of specific information contained in the key audit matter and equity systematic risk in the audit report year is the negative association between the proportion of specific information contained in the key audit matter and equity systematic risk.

In order to explore the mechanism by which the specific information of the key audit matter reduces systematic risk of equity returns in the next year of the audit report year, we conduct the regression of the proportion of the specific information contained in the key audit matter on the two aforementioned decomposition factors of systematic risk in the next year of the audit report year. The proportion of specific information of the text of the whole content, the description and the corresponding audit procedure of key audit matters have no significant impact on D_FACm in the next year, which indicates that after the release of the audit report, the specific information contained in the critical audit matter does not affect the next year's idiosyncratic volatility by the way of affecting the relative level of basic features of the operation and finance of the firm in the next year. The regression coefficients of the proportion of specific information of text of the whole content and the corresponding audit procedure of key audit matters on $\beta(\Delta r, \Delta r_m)$ are -0.193 and -0.235 respectively, significant at the level of 5% and 1% respectively. It shows that with the increase of the proportion of specific information in the whole content and the corresponding audit procedure of key audit matters, $\beta(\Delta r, \Delta r_m)$ tends to decline in the next year, which leads to the decline of systematic risk Beta in the next year. Therefore, the channel through which the specific information of the key audit matter reduces equity systematic risk of the next year of the audit report year is that the specific information directly reduces the market perception of equity systematic risk (The sensitivity of the market-level change of equity's expected return), rather than affecting the relative level of basic operational and financial feature of the audited firm (D_FAC).

Table 5: The results of mechanism test related to the proportion of specific information of key audit matters and equity systematic risk

Panel A: Mechanism test of the association between the proportion of specific information of key audit matters and systematic risk of the audit report year						
	(1)		(2)		(3)	
Variable	<i>D_FACm</i>	<i>Beta_r</i>	<i>D_FACm</i>	<i>Beta_r</i>	<i>D_FACm</i>	<i>Beta_r</i>
<i>IDIO_All</i>	0.142**	-0.303***				
	(2.391)	(-3.193)				
<i>IDIO_DES</i>			0.187***	-0.122		
			(3.018)	(-1.240)		
<i>IDIO_METHOD</i>					0.114*	-0.367***
					(1.958)	(-4.006)
<i>SIZE</i>	0.426***	0.097***	0.429***	0.099***	0.425***	0.098***
	(17.492)	(3.734)	(17.568)	(3.798)	(17.452)	(3.770)
<i>LEV</i>	-0.736***	-0.051	-0.740***	-0.052	-0.735***	-0.053
	(-9.806)	(-0.575)	(-9.861)	(-0.586)	(-9.777)	(-0.599)
<i>FIRM_AGE</i>	0.117***	-0.262***	0.116***	-0.259***	0.117***	-0.264***
	(31.492)	(-48.531)	(32.042)	(-49.055)	(31.280)	(-48.280)
<i>BM</i>	-1.427***	0.214***	-1.426***	0.212***	-1.427***	0.217***
	(-25.728)	(3.999)	(-25.731)	(3.940)	(-25.714)	(4.040)
<i>BUSIRISK</i>	-0.122	0.205	-0.124	0.193	-0.119	0.201
	(-1.045)	(1.526)	(-1.062)	(1.433)	(-1.010)	(1.505)
<i>Growth</i>	0.033**	-0.007	0.033**	-0.005	0.033**	-0.007
	(2.504)	(-0.432)	(2.482)	(-0.331)	(2.493)	(-0.467)
<i>RET</i>	0.179***	-0.196***	0.179***	-0.196***	0.178***	-0.196***
	(14.166)	(-13.673)	(14.175)	(-13.660)	(14.154)	(-13.663)
<i>KZ</i>	0.014***	-0.018***	0.014***	-0.018***	0.013***	-0.017***
	(2.651)	(-3.043)	(2.722)	(-3.061)	(2.633)	(-3.008)
<i>IFQ</i>	0.164**	0.166**	0.157**	0.167**	0.167**	0.162*
	(2.169)	(2.003)	(2.065)	(2.005)	(2.202)	(1.953)
<i>TOP10HOLDER</i>	0.001	-0.012***	0.001	-0.012***	0.001	-0.012***
	(0.799)	(-9.762)	(0.794)	(-9.677)	(0.791)	(-9.805)
<i>Constant</i>	-7.893***	1.498***	-7.922***	1.565***	-7.889***	1.446**
	(-14.917)	(2.669)	(-14.988)	(2.791)	(-14.905)	(2.576)
Fixed effects of industry and time	YES	YES	YES	YES	YES	YES
Observations	17,044	16,729	17,044	16,729	17,044	16,729
Number of firms	3,451	3,297	3,451	3,297	3,451	3,297
Adj.R ²	0.395	0.541	0.395	0.54	0.394	0.541
Panel B Mechanism test of the impact of the proportion of specific information of key audit matters on systematic risk in the next year of the audit report year						
	(1)		(2)		(3)	
Variable	<i>D_FACm</i>	<i>Beta_r</i>	<i>D_FACm</i>	<i>Beta_r</i>	<i>D_FACm</i>	<i>Beta_r</i>
<i>IDIO_All_1</i>	0.043	-0.193**				
	(0.666)	(-2.150)				
<i>IDIO_DES_1</i>			0.108	-0.128		
			(1.578)	(-1.403)		
<i>IDIO_METHOD_1</i>					0.019	-0.235***
					(0.297)	(-2.640)
<i>SIZE</i>	0.423***	0.178***	0.425***	0.179***	0.423***	0.178***
	(14.520)	(6.636)	(14.543)	(6.672)	(14.517)	(6.646)
<i>LEV</i>	-0.746***	-0.094	-0.747***	-0.093	-0.746***	-0.095
	(-8.690)	(-1.021)	(-8.707)	(-1.015)	(-8.686)	(-1.033)
<i>FIRM_AGE</i>	0.088***	-0.303***	0.088***	-0.302***	0.088***	-0.304***
	(19.572)	(-52.157)	(19.843)	(-52.606)	(19.461)	(-51.950)

<i>BM</i>	-1.460***	0.251***	-1.459***	0.250***	-1.460***	0.254***
	(-25.610)	(4.376)	(-25.626)	(4.336)	(-25.588)	(4.417)
<i>BUSIRISK</i>	-0.061	-0.179	-0.059	-0.187	-0.060	-0.178
	(-0.437)	(-1.298)	(-0.424)	(-1.351)	(-0.429)	(-1.291)
<i>Growth</i>	0.034**	-0.005	0.034**	-0.006	0.034**	-0.005
	(2.175)	(-0.312)	(2.176)	(-0.331)	(2.178)	(-0.302)
<i>RET</i>	0.171***	-0.166***	0.171***	-0.166***	0.171***	-0.166***
	(12.878)	(-11.615)	(12.893)	(-11.619)	(12.876)	(-11.606)
<i>KZ</i>	0.016***	-0.015**	0.017***	-0.016**	0.016***	-0.015**
	(2.754)	(-2.542)	(2.785)	(-2.569)	(2.750)	(-2.511)
<i>IFQ</i>	0.158*	0.137*	0.155*	0.139*	0.159*	0.134
	(1.859)	(1.663)	(1.821)	(1.686)	(1.867)	(1.634)
<i>TOP10HOLDER</i>	0.000	-0.012***	0.000	-0.012***	0.000	-0.012***
	(-0.391)	(-9.271)	(-0.389)	(-9.234)	(-0.395)	(-9.288)
<i>Constant</i>	-7.354***	0.162	-7.352***	0.181	-7.356***	0.141
	(-11.839)	(0.286)	(-11.827)	(0.318)	(-11.845)	(0.248)
Fixed effects of industry and time	YES	YES	YES	YES	YES	YES
Observations	14,702	14,425	14,702	14,425	14,702	14,425
Number of firms	3,421	3,268	3,421	3,268	3,421	3,268
Adj.R ²	0.393	0.585	0.393	0.585	0.393	0.585
Robust t-statistics in parentheses						
*** p<0.01, ** p<0.05, * p<0.1						

In order to make mechanism analysis, we apply the MPEG calculation method provided by Xinshu Mao to measure the cost of equity capital. Among the methods for measuring the cost of equity capital, PEG and OJ methods could also be applied to calculate the cost of equity capital with strong reliability. Therefore, this paper also applies PEG and OJ methods to measure the cost of equity capital for the calculation of variables of D_FAC and D_FACm in the mechanism test and the results are generally consistent with the conclusions of the previous mechanism test.

5.2.2. Mechanism Analysis Related to the Proportion of Specific Information of Key Audit Matters and Equity Idiosyncratic Risk

According to Equation (8), the idiosyncratic volatility can be decomposed into two factors, which are $D_FAC = \frac{D}{1+r}$ and $IVOL_r = \sigma(\Delta r_f)$. D_FAC reflects the basic features of the company's operation and finance. $IVOL_r$ is the volatility of firm-level expected return change, reflecting the market perception of idiosyncratic risk of equities. Through the regression analysis between the proportion of specific information contained in the key audit matter and each of these two factors respectively, we can explore the mechanism of association of the contents of the key audit matters with equity idiosyncratic risk and the influence of the former on the latter. Due to space limitations, this article does not present the data from the mechanism tests related to the heterogeneity risk of securities.

By comparing the two mechanisms of the association of the contents of key audit matters with equity risk and the influence of the former on the latter, we can summarize the following conclusions. The proportion of specific information of key audit matters in the audit report is strongly associated to the basic features of the company's operation and finance in the audit report year, while it has no association with the market perception of equity idiosyncratic risk in the audit report year. This proves that the content of the audit report is based on the basic operation and financial features of the audited company. The proportion of specific information in the key audit matter has no impact on the basic features of the company's operation and finance in the next year

of the audit report year, while the specific information could increase the market perception of equity idiosyncratic risk in the next year of the audit report year, which proves that the content of the audit report will provide information value for the investment decisions. It also increases the impact factors at the company level on investors' investment activities when the companies with high proportion of specific information in the key audit matters in the audit report. This proves that specific information increases the impact of the firm-level shock on investment decisions and the content of audit reports will provide information value for future investors' investment decisions.

6. Conclusion

After the beginning of the new audit report reform, the proportion of the specific information in the key audit matter of the audit report has a positive association with the proportion of equity idiosyncratic risk and a negative association with the proportion of equity systematic risk in the audit report year. The specific information of key audit matters will increase the proportion of equity idiosyncratic risk and reduce the proportion of equity systematic risk in the next year of the audit report year.

By comprehensively comparing and analyzing similarities and differences of the mechanisms of associations between the specific information proportion of key audit matters and each of equity idiosyncratic risk and systematic risk in the audit report year and the mechanisms by which the specific information proportion of key audit matters affects equity idiosyncratic risk and systematic risk in the next year of the audit report year, we propose the following conclusions: (1) The mechanism for the association between the proportion of specific information of key audit matters and equity idiosyncratic risk in the audit report year is the association between the proportion of specific information and the basic features of the company's operation and finance in the audit report year. The positive association between the proportion of specific information and the ratio of the company's implied equity duration to the cost of equity capital in the audit report year (which reflects the basic features of operation and finance) directly leads to the positive association between the proportion of specific information and the firm's equity idiosyncratic risk. (2) The main mechanism for the association between the specific information proportion of key audit matters and equity systematic risk in the audit report year is the association between the specific information proportion and the market perception of equity systematic risk in the audit report year. The specific information proportion of key audit matters is positively related to the relative level of the ratio of the implied equity duration to the cost of equity capital of the firm in the audit report year (reflecting the relative level of the basic features of the firm's operation and finance), and negatively related to the sensitivity of the market-level change of equity's expected return (the market perception of equity systematic risk). The latter association is stronger than the former, which results in a negative association between the proportion of specific information of key audit matters and systematic risk in the audit report year. (3) The mechanism of the impact of the proportion of specific information of key audit matters on equity risk of the firm in the next year of the audit report year is the impact of the proportion of specific information on the market perception of equity risk of the firm in the next year, but the proportion of specific information has no impact on the basic features of the company's operation and finance in the next year. The channel of the positive impact of the specific information proportion of key audit matters on the next year's idiosyncratic risk is the positive impact of the specific information proportion on the market perception of the next year's equity idiosyncratic risk (the volatility of firm-level expected return change). The channel of the negative impact of the specific information proportion of key audit matters in the audit report on systematic risk is the negative impact of the specific information proportion on the market perception of equity systematic risk (the sensitivity of the market-level

change of equity's expected return).

The content of key audit matters in the audit report has a significant association with the basic features of operation and finance and the market perception of equity systematic risk in the audit report year, which proves that the content of the audit report has strong reliability. The content of key audit matters in the audit report has a significant impact on equity risk perception in the next year of the audit report year, which proves that key audit matters provide sufficient information value for the investment decisions of investors in the capital market. Therefore, the implementation of the new audit report reform is conducive to the high-quality development of the capital market in China.

References

- [1] Qian Sai, Yanxi Li, Yanwen Liu, Heng Zhao, Shanshan Ouyang. (2022). *Audit report information improvement and earnings management. International Journal of Finance and Economics*, 1-18.
- [2] Yanyan Wang et al. (2018). *Can Key Audit Matters Enhance the Communication Value of the Audit Report?. Accounting Research*, 2018(6): 86-93
- [3] Barigozzi M, Brownlees C, Gallo G M, et al. (2014). *Disentangling systematic and idiosyncratic dynamics in panels of volatility measures. Journal of Econometrics*, 18: 364-384.
- [4] Abdoh H, Varela O. *Product market competition, idiosyncratic and systematic volatility. Journal of Corporate Finance*, 2017, 43: 500-513.
- [5] Fengming Song, Jie Jiang. (2003). *An Empirical Study of the Volatility Characteristics of the Chinese Stock Market. Journal of Financial Research*, 2003(4): 13-22
- [6] Ling Tao, Ying Zhu. (2016). *On China's Financial Systemic Risks. Journal of Financial Research*, 2016(06): 18-36
- [7] Bo Huang, Zhan Li, Mengdi Gu. (2006). *A Study of Firm Idiosyncratic Risk Based On Risk Appetite Asset Pricing Models. Management World*, 2006(11): 119-127
- [8] Bennett J A, Sias R W, Starks L T. (2003). *Greener pastures and the impact of dynamic institutional preferences. Review of Financial Studies*, 16: 1203-1238.
- [9] Weiqi Liu, Xinxin Liu. (2014). *Individual/institutional investor sentiment and stock returns: Study based on Shanghai A-share market. Journal of Management Sciences in China*, 2014, 17(3): 70-87
- [10] Beyer, A, Cohen, D. A, Lys, T. Z, & Walther, B. R. (2010). *The financial reporting environment: Review of the recent literature. Journal of Accounting and Economics*, 50(2-3), 296-343.
- [11] Kothari, S. P, Li, X, & Short, J. E. (2009). *The effect of disclosures by management, analysts, and business press on cost of capital, return volatility, and analyst forecasts: A study using content analysis. The Accounting Review*, 84(5), 1639-1670.
- [12] Jin, L, & Myers, S. C. (2006). *R2 around the world: New theory and new tests. Journal of Financial Economics*, 79(2), 257-292.
- [13] Jianbo Song, Xiaoqing Feng. (2022). *The Information Content of Critical Audit Matters and Corporate Bond Issue Pricing—Evidence from Text Similarity. Accounting Research*, 2022(03): 174-191
- [14] Muzhi Wang, Dan Li. (2019). *New Audit Reporting and Stock Price Synchronicity. Accounting Research*, 2019(1): 86-92
- [15] Dechow, P. M, Sloan, R. G. & Soliman, M. T. (2004). *Implied Equity Duration: A New Measure of Equity Risk. Review of Accounting Studies* 9, 197-228

- [16] Campbell, J. and J. Mei. (1993). *Where Do Beta Come From? Asset Price Dynamics and the Sources of Systematic Risk. The Review of Financial Studies* 6, 567-592.
- [17] Cornell, B. (1999). *Risk, Duration, and Capital Budgeting: New Evidence on Some Old Questions. Journal of Business* 72, 183-200.