



# Does Differentiated Key Audit Matter in Unqualified Audit Reports Indicate Increased Financial Misstatement Risk? Evidence from China\*

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Received 22 February 2022; Received in current form (3<sup>rd</sup> revision) 18 November 2022; Accepted 23 November 2022

## Abstract

This study examines whether differentiated disclosure of key audit matter (KAM) in China indicates a higher financial misstatement risk. Our empirical study demonstrates that financial statements with less boilerplate KAM are more likely to be subsequently restated than those with more boilerplate KAM. This association is only pronounced for smaller auditing firms in stronger legal environments. Additionally, auditors who report differentiated KAM are likely to disclose more risk-related information. Moreover, clients are more likely to restate financial reports when the KAM relates to managers' subjective estimations.

**Keywords** Key audit matter; Financial restatement; Textual similarity; Audit reports

*JEL Classification:* G14, M41, M42

\*We appreciate helpful comments from the editor and anonymous reviewers. This paper was supported by the Humanities and Social Sciences Youth Foundation of the Ministry of Education of China (No.19YJCZH167), the National Natural Science Foundation of China (No.71872154), the Humanities and Social Sciences Research Program of Chongqing Municipal Education Commission in 2020 (No.20SKGH012) and the Project of Southwest University of Political Science and Law of China in 2019 (No.2019XZQN-21).

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## 1. Introduction

The traditional audit report model is standardized and contains little valuable information for investors. To provide incremental information to investors and improve the transparency of audit work, the Chinese Ministry of Finance (CMF) announced CSACPA No.1504 in 2016. Similar to other international auditing standards boards, the CMF requires external auditors to disclose key audit matter (KAM) in audit reports to communicate matters that have a material influence on audit opinions. Standard-setters and researchers both express concerns that auditing reports with KAM are innocuous. Norris (2014) claims that the boilerplate disclosure of KAM may only be perfunctory and has little communicative value. However, Zeng *et al.* (2021) argue that the boilerplate disclosure of KAM is not overwhelming in China, and firms are less likely to manipulate earnings if the textual similarity of KAM is lower. To extend the study of Zeng *et al.* (2021), this study investigates whether financial reports with differentiated disclosure of KAM with unqualified auditing opinions are more likely to be restated and what motivates auditors to indicate misstatement risk by reducing the KAM boilerplate.

We predict that increased legal liability, and the need to compete for customers, motivate auditors to tailor the KAM disclosure of client firms with higher misstatement risk. Auditors will likely maintain client relationships (Czerney *et al.* 2014). Firms with modified audit opinions are excluded from listings in the Chinese stock market. Therefore, a modified audit opinion is costly under client pressure. However, when the misstatement risk of clients' financial reports increases, auditors need methods to rationalize their judgment to alleviate their legal risk; thus, disclosing KAM in audit reports is essential for auditors to legitimize their judgment (Asbahr and Ruhnke 2019). Audit working papers about the risk-based audit approach provide CMF critical evidence for determining the quality of auditors' work. The KAM enables auditors to communicate matters they care about and the resolutions they exert to the public, which amounts to public working papers. Therefore, to decrease investors' perceptions of auditors' negligence and maintain amicable client relationships, auditors can issue a clean audit opinion and reduce boilerplate language in the KAM.

The institutional environment of the Chinese stock market is weaker yet ever-improving. Simunic *et al.* (2017) assert that as investors can hardly claim compensation from auditors under the weak legal environment in China, auditing quality is unlikely to improve as intended. However, others argue that audit quality disclosure is more likely effective in emerging markets with weak legal environments (Choi and Wong 2007; Chen *et al.* 2019). Therefore, the effectiveness of audit report reforms in China remains controversial. While most investigations on the effectiveness of the expanded audit report model focus on a more efficient capital market (e.g. Brasel *et al.* 2016; Kachelmeier *et al.* 2020), China provides a setting for examining the influence of KAM disclosure in emerging markets. Moreover, CSACPA

No.1504 is similar to ISA No.701. Our findings also provide evidence for standard-setters regarding the effectiveness of ISA No.701.

Specifically, this study uses two measures, the Vector Space Model (VSM) and textual specificity, as proxies for the horizontal KAM boilerplate in unqualified audit reports using the data of the Chinese A-stock market. We examine whether financial statements accompanied by unqualified audit reports with differentiated disclosures of KAM are more likely to be restated. We then examine whether the association between the KAM boilerplate and financial report restatement varies with clients' legal environments and the scale of auditing firms. By examining these factors, we can understand auditors' motivations for differentiating their wording in KAM.

We find that financial statements with differentiated disclosures of KAM in unqualified audit reports are more likely to be restated than those with boilerplate KAM in unqualified audit reports. However, this association is limited to firms in stronger legal environments that are audited by small audit firms. These findings indicate that increased legal liability and a greater need to compete for customers can compel auditors to differentiate the KAM of firms with a higher misstatement risk. Our study indicates that differentiated KAM disclosed by non-Big10 auditing firms in a stronger legal environment are informative in predicting a subsequent financial report restatement.

This study contributes to the existing literature in several ways. First, our investigation contributes to the literature on auditor behavior during the post-KAM period, suggesting that increased legal liability motivates auditors to signal high financial misstatement risk to investors by reducing the KAM boilerplate.

Second, this study extends Zeng *et al.* (2021) by exploring auditors' motivations to use different wording to present KAM paragraphs. Our findings indicate that auditors use differentiated KAM to protect themselves from legal risks. We use the subsequent restatement of financial reports as a proxy for clients' misstatement risk. This restatement brings significant losses to investors and is an explicit and comprehensive proxy for misstatement risk. Therefore, it is a more powerful measure than that used by Zeng *et al.* (2021). Zeng *et al.* (2021) use the specificity of KAM in their analysis but found inconsistent results across accounting quality measures. In this study, we use textual specificity as a reverse measure of the boilerplate. Our results are consistent with textual similarity and specificity measures in capturing the risk of subsequent restatements.

Third, our findings validate the effectiveness of KAM in China and provide implications for standard-setters. While the International Auditing and Assurance Standards Board expresses concern that standardized KAM weakens the communicative value of audit reports, our findings indicate that auditors strategically modify the textual similarity of KAM based on the risk they perceive. Therefore, investors can estimate firm risk based on the degree of the KAM boilerplate and receive incremental information through KAM.

## 2. Literature Review

The existing literature mainly focuses on how KAM disclosure affects auditors' liability, auditing quality, and the communicative value of audit reports.

Inconsistent findings are presented on the influence of KAM on auditor liability. Brasel *et al.* (2016) find that auditors are subject to lower perceived liability in the United States, regardless of whether the KAM disclosed is related or unrelated to the subsequently detected misstatement. Kachelmeier *et al.* (2020) present a similar result, reasoning that KAM alerts investors to misstatement risks in highly uncertain areas. Asbahr and Ruhnke (2019) find that auditors regard KAM as a critical approach to legitimizing their judgment when inclined to comfort clients' pleasure. In contrast, Gimbar *et al.* (2016) argue that KAM increases jurors' perceived auditors' liability for subsequent KAM misstatements. Pinto and Morais (2019) examine whether the amount of KAM disclosed varies with different litigation risks and find that auditors increase the quantity of KAM disclosed if they perceive higher litigation risks. Vinson *et al.* (2019) indicate that auditors' perceived liability increases if a matter is removed from KAM.

Regarding the association between KAM and auditing quality, Al-Mulla and Bradbury (2022) find no evidence that KAM improves auditing quality in New Zealand. Asbahr and Ruhnke (2019) assert that KAM does not improve auditors' professional skepticism. However, using Thai statistics, Kitiwong and Sarapaivanich (2020) find weak evidence that KAM improves auditing quality. Chen *et al.* (2019) validate that KAM compels auditors to exert more effort if the underlying accounting quality is low. In the setting of China, Zeng *et al.* (2021) empirically validate that the expended auditing report improves auditing quality.

Whether KAM can improve the communicative value of audit reports remains controversial. Supporters of audit reporting reforms argue that KAM communicates incremental information to investors. Christensen *et al.* (2014) find that KAM disclosures in audit reports change investor behavior. The experimental findings of Elliott *et al.* (2020) indicate that including KAM in audit reports can enhance the perceived quality of financial reports. Similarly, Hoang and Phang (2021) find that non-financial KAM regarding the uncertainty of estimation enhances the perceived reliability of financial information. Sirois *et al.* (2018) utilize eye-tracking techniques to compare participants' responses to items in financial reports that are highlighted in KAM and those that are not, showing that participants are more attentive to financial report matters disclosed in KAM. Moroney *et al.* (2021) find that KAM disclosure improves investors' perceived credibility of audit reports proposed by smaller-scale audit firms. In contrast, critics question the informativeness of expanded audit reports. Gutierrez *et al.* (2018) empirically find that investors' behavior does not change significantly after UK companies apply the KAM audit report model. Bédard *et al.* (2019) examine the French capital market's response to KAM disclosure in audit reports, indicating that expended audit reports do not significantly alter investors' behavior. Lennox and Pittman (2011) argue that KAM can

hardly provide incremental information because the information contained by KAM disclosures in audit reports is also available from other resources.

In summary, the literature on the KAM reporting model effectiveness regarding communicative value and auditing quality is inconsistent. One inference based on the literature is that the characteristics of KAM disclosure vary with auditors' perceived liability. Therefore, auditors may modify their behavior regarding KAM disclosures based on their legal liability. This study examines whether the differentiated disclosure of KAM signals a higher likelihood of subsequent financial report restatement and how auditors' legal liability affects the association in China's audit report reforms.

### 3. Hypothesis Development

CSACPA No.1504 primarily aims to provide investors with incremental information through audit reports. However, additional detailed disclosures may divulge clients' proprietary information (Dedman and Lennox 2009) and increase auditing costs (Sierra-García *et al.* 2019). Thus, KAM may be an additional boilerplate disclosure added only to meet the requirements (Brasel *et al.* 2016).

However, auditors may tailor their KAM disclosures if they perceive their clients as having a high misstatement risk. Only firms with unqualified audit opinions are listed in the Chinese A-stock market. As auditors are likely to maintain client relationships (Czerney *et al.* 2014), a modified audit opinion is costly under client pressure. Therefore, most audit opinions in China are unqualified. Nevertheless, auditors are subject to legal liability if a misstatement in financial reports is subsequently detected with an unqualified audit opinion. According to Nelson and Pritchard (2016), firms reduce the boilerplate of risk factors to mitigate legal risks. Similarly, auditors may reduce the KAM boilerplate when perceiving high legal risk because the expanded audit report model enables auditors to rationalize their judgment through KAM with an unqualified audit opinion (Asbahr and Ruhnke 2019).

CSACPA No.1504 requires auditors to disclose what issues the KAM is related to and how they resolve these issues, like the role of audit working papers. Therefore, KAM disclosure can be considered a public audit working paper. Risk-based audit work papers provide critical evidence for determining auditors' work quality. Thus, to alleviate their potential responsibility for client misstatements, auditors can use differentiated wording in KAM disclosures to state that more effort has been devoted and that they are sufficiently diligent. Accordingly, our primary hypothesis is as follows.

**Hypothesis 1.** *Financial statements receiving audit reports with more differentiated KAM will more likely be restated than financial reports receiving audit reports with boilerplate KAM.*

When auditors provide unqualified audit opinions on financial statements that are subsequently detected, misstatements and auditors are negligent, and legal liability generally arises. Increased legal liability prompts auditors to provide more accurate audit reports (Chan and Liu 2023). However, the legal environment also affects auditors' legal liabilities for misstatements. Simunic and Wu (2009) find that auditors' legal liability is limited by a weaker legal environment as investors can hardly receive damage from auditors. Thus, in a weaker legal environment, audit reform may not influence auditors' behavior (Simunic *et al.* 2017). Conversely, client misstatements are more likely to be detected in a stronger legal environment, increasing auditors' punitive amounts for the joint and several liabilities (Simunic 1980). Therefore, auditors are more sensitive to the legal risks arising from client misstatements in stronger legal environments. Moreover, the intent to make an appropriate and sufficient effort to avoid loss decreases blame attribution to the individual in question (Alicke 2000; Alicke *et al.* 2008). KAM discloses risk-based information. Specific risk-based disclosures validate auditors' intentions to conduct a quality risk-based audit to avoid harmful outcomes (Backof 2015). Therefore, increased legal risk further motivates auditors to tailor KAM wording to claim diligence, decreasing their liability for misstatements (Christensen *et al.* 2014; Brasel *et al.* 2016)—called the “Disclaimer argument.”

In a stronger legal environment, regulatory threats decrease managers' intentions to engage in financial fraud (Skinner 1994; Glaum *et al.* 2018). As auditors are required to analyze a firm's legal environment during the risk assessment stage, a stronger legal environment decreases audit risk assessment (Pinto and Morais 2019). Therefore, based on the cost-efficiency principle, auditors conduct less specific audit procedures for more regulated and supervised firms, decreasing the personalized disclosure of KAM. In a “Cost-efficiency argument,” a stronger legal environment weakens the association between boilerplate KAM and the restatement of financial reports. Thus, we present the following hypothesis.

**Hypothesis 2a.** (*Disclaimer hypothesis*) *The association between the boilerplate KAM and the likelihood of subsequent restatement is stronger under a stronger legal environment.*

**Hypothesis 2b.** (*Cost-efficiency hypothesis*) *The association between the boilerplate KAM and the likelihood of subsequent restatement is stronger under a weaker legal environment.*

Under the “Disclaimer argument,” the effect of the legal environment on the association between KAM boilerplate and clients' misstatement risk is stronger for small-scale audit firms. These firms must compete for customers. However, with a stronger legal environment, auditors should weigh the costs of losing customers and increasing legal liability. The KAM audit report model enables small-scale audit firms to provide less boilerplate KAM than modified audit opinions at the expense

of losing customers. To the extent that auditors respond to clients' misstatement risk more intensively in a stronger legal environment than in a weaker one, we expect small auditors to reduce the boilerplate of KAM with increased misstatement risk in a stronger legal environment. In contrast, large-scale audit firms care more about reputation than about maintaining good customer relationships and are deemed to possess higher audit quality (DeAngelo 1981). Therefore, higher legal liability compels large auditors to directly issue a modified opinion or terminate the clients' audit engagement with high misstatement risk, irrespective of the legal environment (Frost 1991; Mutchler *et al.* 1997; Joe 2003).

Under the "Cost-efficiency argument," the impact of the legal environment on the association between KAM boilerplate and clients' misstatement risk can be stronger for larger audit firms. The legal environment influences auditors' resources to decrease detection risk (Gul and Tsui 1997). Increased audit efforts will be reported in KAM based on the requirements of CSACPA 1504, decreasing the KAM boilerplate. However, smaller auditing firms have limited auditing resources and must compete for clients. Therefore, the legal environment may not influence the KAM disclosure of smaller auditing firms. Based on this, we propose the following hypothesis.

**Hypothesis 3a.** (*Disclaimer hypothesis*) *The effect of the legal environment on the association between the boilerplate KAM and the likelihood of subsequent restatement is stronger for small auditors than for large auditors.*

**Hypothesis 3b.** (*Cost-efficient hypothesis*) *The effect of the legal environment on the association between the boilerplate KAM and the likelihood of subsequent restatement is stronger for large auditors than for small auditors.*

## 4. Research Design

### 4.1. Sample Selection

As the sample size of 2016 is smaller (only 91 audit reports disclosed KAM in 2016) and the first year of policy implementation is unrepresentative, our main tests include the sample from 2017 to 2020, where 14 940 audit reports disclosed KAM. The unique nature of accounting for financial enterprises eliminates 439 firm-year observations for financial companies. We also exclude 320 firm-year observations with modified audit opinions. The remaining sample contains 14 181 firm-year observations. Table 1 shows the sample composition and sample selection process. We obtain textual data on KAM from the Chinese Research Data Services and other financial statistics from the China Stock Market and Accounting Research Database.

### 4.2. Multivariate Model

We test Hypothesis 1 using a logistic regression model, where *Restate* is the dependent variable, and *Sim* is the independent variable of interest.



**Table 1** Sample selection

Firm-year observations with KAM (Excluding the samples that are specially treated) from 2017 to 2020	14 940
Less observations for financial enterprises	(439)
Less observations with the modified audit opinion	(320)
Final sample	14 181

$$\begin{aligned} Restate_{i,t} = & \beta_0 + \beta_1 Sim_{i,t} + \beta_2 Incot_{i,t} + \beta_3 Size_{i,t} + \beta_4 Lev_{i,t} + \beta_5 ROA_{i,t} + \beta_6 State_{i,t} \\ & + \beta_7 Large_{i,t} + \beta_8 DDSize_{i,t} + \beta_9 Growth_{i,t} + \beta_{10} Accrul_{i,t} + \beta_{11} R\_Restate_{i,t} \\ & + \beta_{12} MDAspecificity_{i,t} + \beta_{13} COMP_{i,t} + \varepsilon_{i,t} \end{aligned} \quad (1)$$

*Restate* is a proxy for financial misstatement risk, which equals one if the firm subsequently restates its financial reports for the current period and zero otherwise. We use the incidence of subsequent restatements as a proxy for the risk of misstatements. Restatement indicates a significant defect in a firm's internal controls and a higher risk of fraud during the current period of restatement (Cao *et al.* 2012). According to Palmrose *et al.* (2004), restatements cause significant investor losses. Therefore, subsequent restatement can be an explicit and comprehensive proxy for misstatement risk. *Sim* is a proxy for the KAM boilerplate in a given industry year. We measure the KAM boilerplate disclosures using two proxies: textual similarity (*Sim\_vsm*) and specificity (*Sim\_spec*).<sup>1</sup>

First, we calculate *Sim\_vsm* for a given industry year using a modified Vector Space Model (VSM). VSM is developed to compare strings of text or documents (Salton and Buckley 1988) and is widely used to compare web user queries to documents in a search engine. We use Sklearn, a Python topic modeling tool, to calculate *Sim\_vsm* as follows:

- 1 We use “*Jieba*,” the Python Chinese words segmentation utilities, to separate all the documents of KAM.<sup>2</sup>
- 2 We use the VSM model to transform the segmentation into vectors and calculate the term frequency (*TF*) of term *i* in *j* document.

<sup>1</sup>These two measures are correlated but also capture different KAM features—we introduced each measure in equation (1) when the other one is controlled. Untabulated results show that the coefficients of the two measures are both significant, indicating that neither measure can subsume the other one.

<sup>2</sup>A professional accounting dictionary is imported to “*Jieba*,” enabling it to discern the professional accounting vocabulary.



$$TF_{ij} = \frac{n_{ij}}{\sum_k n_{kj}} \quad (2)$$

- 3 We use the *TF-IDF* model to weigh vectors, where  $M$  is the total number of KAM documents and  $m$  is the number of documents, including term  $i$ .

$$TF - IDF_{ij} = TF_{ij} \times \log \frac{M}{m} \quad (3)$$

- 4 We calculate the cosine distance between the vectors of firm  $i$  ( $v_i$ ) and those of industry peer firm  $j$  ( $v_j$ , where  $j \neq i$ ) in the same year  $t$ . In equation (4),  $\theta$  is the angle between  $v_i$  and  $v_j$ .  $\|v_i\|$  and  $\|v_j\|$  are the lengths of the vectors  $v_i$  and  $v_j$ . “ $\cdot$ ” is a dot product operation. The textual similarity for firm  $i$  in year  $t$  ( $Sim\_vsm_{i,t}$ ) is the average value of  $Sim\_vsm_{i,j}$ .  $Sim\_vsm_{i,t}$  ranges from 0 to 1, with a higher value indicating higher textual similarity of KAM.

$$Sim_{ij} = \cos\theta = \left( \frac{v_i}{\|v_i\|} \right) \cdot \left( \frac{v_j}{\|v_j\|} \right) \quad (4)$$

We use one minus the textual specificity of KAM as another measure of the KAM boilerplate. Following Hope *et al.* (2016), we count the number of words that precisely describe an entity in the KAM text and scale this word count by the total number of words in the text to obtain the textual specificity of KAM. Then, we subtract the textual specificity of KAM from 1 to obtain  $Sim\_spec$ , such that the greater the value, the greater the boilerplate.

Following the literature (Aier *et al.* 2005; Romanus *et al.* 2008; Young *et al.* 2008; Files *et al.* 2014), we control for companies' financial characteristics associated with the incidence of financial report restatements. *Incot* is an indicator variable that equals one if auditors report material defects in internal controls and zero otherwise. *Size* is the proxy for firm size, measured as the natural log of the company's total assets at the fiscal year-end. *Lev* is the total liabilities of firms divided by total assets. *Accrual* is an indicator variable that equals 1 if firms report greater net cash flows from operating activities than net income. *Large* is a proxy for the largest shareholder's shareholdings. *State* is an indicator variable that equals 1 if the actual controller of the firm is a state-owned entity and 0 otherwise. *Growth* is calculated as the change in this year's revenue over the previous year divided by the previous year's revenue. *DDSize* is the proportion of independent directors on the board. *R\_Restate* is an indicator variable that equals 1 if firms announced a restatement within 3 years and 0 otherwise. We also include the specificity (*MDASpecificity*) of management discussion and analysis (MD&A) and firms' accounting

comparability (*COMP*) in equation (1) as additional control variables,<sup>3</sup> because these variables are related to both the likelihood of misstatement and the textual similarity of KAM. *MDASpecificity* is the number of words related to a specific date, number, or percentage in proportion to the total number of words in the MD&A disclosure. Following De Franco *et al.* (2011), accounting comparability between two firms is the negative value of the average absolute difference between the predicted earnings of firm *i* and those of an industry peer firm *j*.<sup>4</sup>

To test Hypothesis 2, we partition our sample into observations with higher and lower legal environment indexes based on the median legal environment index of the firms' registered locations. We then reestimate equation (1) separately for each group. Fan *et al.* (2010) initiated a legal environment index for China based on evaluating the development of intermediary organization, consumer protection, intellectual property protection, and manufacturer protection in every region. A higher legal environment index indicates a stronger legal environment.

To test Hypothesis 3, we further partition our sample into four groups: (i) lower legal environment index audited by Big10 auditors, (ii) lower legal environment index audited by non-Big10 auditors, (iii) higher legal environment index audited by Big10 auditors, and (iv) higher legal environment index audited by non-Big10 auditors. We then reestimate equation (1) separately for each group.

## 5. Empirical Results

### 5.1. Descriptive Statistics

Panel A of Table 2 describes all continuous characteristic variables in our study. The mean *Sim\_vsm* is 0.154, suggesting that, on average, the KAM's textual similarity of KAM is 15.4%. The mean of *Sim\_spec* is 0.061, suggesting that, on average, 6.1% of the KAM wording is standardized. According to CSACPA No.1504, auditors should communicate reasons for identifying issues as KAM in audit reports. Panel B of Table 2 displays the descriptive statistics for the textual similarities among the different KAM categories. From 2017 to 2020, auditors of 7514 firm-year observations disclosed KAM related to managers' subjective estimation, 1756 about the high risk of misstatement, and 3650 related to material transactions and events.<sup>5</sup> The KAM related to a high risk of misstatements has the highest mean textual similarity, with a maximum of approximately 0.57. Panel C shows the annual

<sup>3</sup>Although we controlled for firm characteristics, including MD&A specificity and accounting comparability, some unobservable omitted variables may explain KAM attributes and misstatement risk.

<sup>4</sup>Predicted earnings are estimated by regressing the ratio of quarterly net income before extraordinary items to stock price return during the period.

<sup>5</sup>Since auditors determine KAM considering more than one reason, there is overlap among the three types of KAM.

**Table 2** Descriptive statistics

This table presents the descriptive statistics for dependent and independent variables. Panel A presents the descriptive statistics for our sample's continuous variables. Panel B shows the descriptive statistics of boilerplate for different types of KAM. Panel C shows the annual distribution of financial report restatement. All the variables are identified in Appendix 1.

Panel A: Descriptive statistics of the continuous variables

	Observation	Mean	Median	Min	Max
<i>Sim_vsm</i>	14 181	0.154	0.147	0.04	0.393
<i>Sim_spec</i>	14 181	0.061	0.059	0	0.236
<i>Size</i>	14 181	22.239	22.064	19.776	26.297
<i>Lev</i>	14 181	0.337	0.340	0.058	0.659
<i>ROA</i>	14 181	0.041	0.042	−0.305	0.233
<i>Large</i>	14 181	33.298	30.916	8.785	73.056
<i>DDSize</i>	14 181	0.378	0.364	0.333	0.571
<i>Growth</i>	14 181	0.149	0.08	−0.623	2.757
<i>Legal environment index</i>	14 181	14.465	15.180	0	27.450
<i>MDASpecificity</i>	14 181	0.029	0.026	0	0.162
<i>COMP</i>	14 181	0.061	0.059	0	0.236

Panel B: Descriptive statistics for different types of KAM

	Observation	Mean	Median	Min	Max
<i>Manager's estimation</i>	7514	0.240	0.319	0.041	0.251
<i>Misstatement risk</i>	1756	0.310	0.571	0.170	0.314
<i>Material transaction and event</i>	3650	0.279	0.11	0.286	0.357

Panel C: Annual distribution of financial report restatement

Year	Restate			Average amount influenced
	0	1	Total	
2017	2459	1022	3481	3.800
2018	3064	1	3065	0
2019	3043	531	3574	0.008
2020	3703	358	4061	0.170
Total	12 571	1912	14 181	1.791

distribution of financial report statements. From 2017 to 2020, 1912 firm-year observations were restated in financial reports.

## 5.2. Multivariate Analysis

Table 3 presents the empirical results for [Hypothesis 1](#), which examines whether financial reports with differentiated KAM in unqualified audit reports are more likely to be restated than those with boilerplate KAM. Columns (1) and (2) present

**Table 3** The association between boilerplate KAM and restatements

This table presents the empirical results for [Hypothesis 1](#). All variables are defined in [Appendix 1](#). The Industry Fixed Effect and Year Fixed Effect are included. The variables of interest are presented in bold. \*, \*\*, \*\*\* denote 10%, 5%, and 1% significance levels, respectively.

	(1) <i>Restate</i>	(2) <i>Restate</i>
<b><i>Sim_vsm</i></b>	<b>−1.355 (−2.32)**</b>	
<b><i>Sim_spec</i></b>		<b>−3.252 (−1.99)**</b>
<i>MDASpecificity</i>	0.740 (0.55)	0.632 (0.49)
<i>COMP</i>	0.108 (0.13)	0.156 (0.22)
<i>Incont</i>	1.250 (4.26)***	1.247 (4.25)***
<i>Size</i>	0.015 (0.48)	0.006 (0.21)
<i>Lev</i>	0.679 (2.51)**	0.682 (2.52)**
<i>ROA</i>	−3.139 (−6.00)***	−3.102 (−5.86)***
<i>State</i>	−0.031 (−0.43)	−0.009 (−0.13)
<i>Large</i>	−0.009 (−4.10)***	−0.009 (−4.15)***
<i>DDSize</i>	0.797 (1.49)	0.799 (1.50)
<i>Growth</i>	0.313 (4.71)***	0.309 (4.66)***
<i>Accrul</i>	0.115 (1.82)*	0.117 (1.85)*
<i>R_Restate</i>	0.443 (7.20)***	0.444 (7.21)***
<i>Observations</i>	14 181	14 181
<i>Industry FE</i>	YES	YES
<i>Year FE</i>	YES	YES
<i>R_square</i>	0.184	0.198

the results of equation (1) using *Sim\_vsm* and *Sim\_spec*; the results are consistent across the two measures. The coefficients of *Sim\_vsm* and *Sim\_spec* are negative and statistically significant in Columns (1) and (2), respectively. This result is consistent with our prediction and suggests that financial reports with differentiated KAM disclosures in unqualified audit reports are more likely to be restated.

The results for Hypothesis 2 are presented in [Table 4](#). Columns (1) and (2) present the results of equation (1) for the subsample with a lower legal environment index. Columns (3) and (4) present the results of equation (1) for the subsample with a higher legal environment index. Similar results are obtained for *Sim\_vsm* and *Sim\_spec*. The coefficients of *Sim\_vsm* and *Sim\_spec* are both significantly negative in Columns (3) and (4) but insignificant in Columns (1) and (2). Untabulated Chi-square tests for the differences in coefficients between the weaker and stronger legal environment subsamples reveal that the coefficients of *Sim\_vsm* and *Sim\_spec* are both significantly smaller for firms in stronger legal environments ( $\chi^2 = 3.99$ ,  $p$ -value = 0.046 for *Sim\_vsm*;  $\chi^2 = 3.80$ ,  $p$ -value = 0.051 for *Sim\_spec*). These results indicate that, under a stronger legal environment, the financial reports with differentiated KAM disclosure in audit reports are more likely to be subsequently restated, providing tentative support for the “Disclaimer hypothesis” ([Hypothesis 2a](#)).

**Table 4** The effect of the legal environment

This table presents the empirical results for Hypothesis 2. The Industry Fixed Effect and Year Fixed Effect are included. The variables of interest are presented in bold. \*, \*\*, \*\*\* denote 10%, 5%, and 1% significance levels, respectively.

	Lower legal environment index		Higher legal environment index	
	(1) <i>Restate</i>	(2) <i>Restate</i>	(3) <i>Restate</i>	(4) <i>Restate</i>
<i>Sim_ysm</i>	<b>-1.382 (-1.61)</b>		<b>-1.952 (-2.41)**</b>	<b>-3.928 (-1.71)*</b>
<i>Sim_spec</i>		<b>-1.961 (-0.78)</b>		0.160 (0.09)
<i>MDASpecificity</i>	1.002 (0.52)	1.189 (0.61)	-0.258 (-0.14)	0.014 (0.01)
<i>COMP</i>	0.856 (0.82)	0.922 (0.89)	0.079 (0.08)	1.036 (1.93)*
<i>Incont</i>	1.287 (3.48)***	1.284 (3.48)***	1.032 (1.93)*	-0.030 (-0.71)
<i>Size</i>	0.065 (1.40)	0.058 (1.25)	-0.016 (-0.38)	0.538 (1.41)
<i>Lev</i>	0.578 (1.40)	0.611 (1.48)	0.563 (1.47)	-2.787 (-3.79)***
<i>ROA</i>	<b>-3.940 (-4.82)***</b>	<b>-3.866 (-4.72)***</b>	<b>-2.888 (-3.95)***</b>	0.024 (0.22)
<i>State</i>	-0.144 (-1.39)	-0.128 (-1.24)	-0.010 (-0.09)	-0.006 (-2.08)**
<i>Large</i>	-0.012 (-3.52)***	-0.012 (-3.59)***	-0.007 (-2.09)**	1.697 (2.27)**
<i>DDSize</i>	-0.384 (-0.47)	-0.422 (-0.51)	1.714 (2.28)**	0.295 (2.88)***
<i>Growth</i>	0.327 (3.51)***	0.329 (3.53)***	0.301 (2.95)***	0.138 (1.56)
<i>Accrual</i>	0.110 (1.15)	0.111 (1.16)	0.137 (1.55)	0.403 (4.65)***
<i>R_Restate</i>	0.476 (5.13)***	0.478 (5.16)***	0.404 (4.66)***	7170
<i>Observations</i>	7011	7011	7170	YES
<i>Industry FE</i>	YES	YES	YES	YES
<i>Year FE</i>	YES	YES	YES	YES
<i>R_square</i>	0.143	0.143	0.182	0.181

Table 5 shows the results for Hypothesis 3, which are consistent across *Sim\_vsm* and *Sim\_spec*. The results in Columns (1) and (2) apply to the Big10 subsample, and the results in Columns (3) and (4) apply to the non-Big10 subsample. The coefficients of *Sim\_vsm* and *Sim\_spec* are only significantly negative for the non-Big10 subsample, indicating that small-scale audit firms are more likely to reduce the boilerplate of KAM with an unqualified audit opinion when their clients are subjected to increased misstatement risk. Moreover, Table 5 shows that the coefficients of *Sim\_vsm* and *Sim\_spec* are significantly negative only for observations audited by non-Big10 and with a higher legal environment index. Untabulated Chi-square tests indicate that the coefficients of *Sim\_vsm* and *Sim\_spec* are both significantly smaller for the stronger legal environment subsample audited by non-Big10 ( $\chi^2 = 3.73$ ,  $p$ -value = 0.053 for *Sim\_vsm*;  $\chi^2 = 4.55$ ,  $p$ -value = 0.033 for *Sim\_spec*), revealing that the effect of the legal environment on the association between boilerplate KAM and misstatement risk is stronger for non-Big10 auditing firms, which supports the “Disclaimer hypothesis” (Hypothesis 3a).

## 6. Additional Analysis

### 6.1. The Effect of Negative Press Coverage

Negative news triggers regulatory actions against auditors, increasing their legal liability (Gong et al. 2018; Kim et al. 2019). Hence, when clients are exposed to a large amount of negative press coverage, auditors are more likely to differentiate KAM to reduce their liability for client misstatements. We then predict that negative press coverage will enhance the relationship between the KAM boilerplate and the likelihood of subsequent financial report restatement.

News censorship in China remains strict, and local governments block negative news dissemination to counter damage to the government’s reputation (Hope et al. 2021). If the media are subject to high censorship, it can hardly affect auditors’ KAM disclosure in China.<sup>6</sup> Therefore, in this section, we consider the impact of negative news coverage with lower censorship. The authoritative financial journals, such as the Top 8 financial and economic journals and the Top 20 financial web media,<sup>7</sup> explore news based on careful investigation, and are non-local media coverage. According to Hope et al. (2021), if firms are subject to negative press coverage from non-local media but non-negative news from local media, the news will

<sup>6</sup>We thank an anonymous reviewer for this point.

<sup>7</sup>According to the classification by the Chinese Research Data Services (CNRDS), the Top 8 financial and economic journals in China are *Shanghai Securities News*, *Daily Securities News*, *China Securities News*, *The Securities Times*, *21st Century Business Herald*, *China Business News Daily*, *The Economic Observer*, and *China Economic News*. The Top 20 major financial web media are Hexun Net, Sina Finance, Tencent, East Money, Net ease, Phoenix Finance, China Economic Net, Sohu Finance, Huaxun Net, FT China, China Securities Net, CNFOL, P5W, Stockstar, The Paper, [Caixin.com](http://Caixin.com), Finance Net, VICAI, and Finance 21CN.

**Table 5** The effect of auditing firms' scale

This table presents the empirical results for Hypothesis 3. The Industry Fixed Effect and Year Fixed Effect are included. The variables of interest are presented in bold.

\*, \*\*, \*\*\* denote 10%, 5%, and 1% significance levels, respectively.

	Big10				Non-Big10				Non-Big10			
	Big10		Non-Big10		Lower legal environment index		Higher legal environment index		Lower legal environment index		Higher legal environment index	
	(1) <i>Restate</i>	(2) <i>Restate</i>	(3) <i>Restate</i>	(4) <i>Restate</i>	(5) <i>Restate</i>	(6) <i>Restate</i>	(7) <i>Restate</i>	(8) <i>Restate</i>	(9) <i>Restate</i>	(10) <i>Restate</i>	(11) <i>Restate</i>	(12) <i>Restate</i>
<i>Sim_ism</i>	-0.774 (-0.95)		-2.463 (-2.82)***		-0.410 (-0.33)		-1.291 (-1.04)		-1.748 (-1.34)		-3.516 (-2.69)***	
<i>Sim_spec</i>		-3.764 (-1.55)		-2.738 (-2.30)**		-0.230 (-0.06)		-2.715 (-0.74)		-4.915 (-1.34)		-5.456 (-1.73)*
<i>MDASpecificity</i>	0.573 (0.32)	-0.391 (-0.20)	-0.756 (-0.39)	0.721 (0.40)	-0.350 (-0.13)	-2.168 (-0.74)	1.755 (0.65)	-4.962 (-1.63)	0.298 (0.11)	3.734 (1.33)	-0.275 (-0.09)	3.093 (1.29)
<i>COMP</i>	0.093 (0.09)	0.524 (0.52)	0.545 (0.54)	0.144 (0.14)	-0.095 (-0.06)	-0.456 (-0.28)	0.284 (0.20)	-0.259 (-0.16)	1.429 (0.93)	1.749 (1.22)	0.966 (0.65)	0.682 (0.48)
<i>Incont</i>	0.653 (1.44)	1.830 (4.20)***	1.861 (4.27)***	0.640 (1.41)	0.926 (1.51)	0.518 (0.89)	0.566 (0.76)	1.492 (1.83)*	2.457 (3.54)***	1.966 (3.47)***	1.168 (1.69)*	0.544 (0.71)
<i>Size</i>	-0.033 (-0.79)	0.078 (1.69)*	0.092 (2.00)**	-0.040 (-0.97)	0.040 (0.63)	0.030 (0.44)	-0.093 (-1.53)	0.094 (1.29)	0.114 (1.66)*	0.067 (1.00)	0.095 (1.29)	-0.076 (-1.36)
<i>Lev</i>	0.719 (1.84)*	0.540 (1.39)	0.568 (1.46)	0.728 (1.86)*	0.246 (0.41)	0.270 (0.43)	0.625 (1.10)	0.626 (1.06)	0.182 (0.31)	0.642 (1.10)	0.951 (1.59)	0.395 (0.73)
<i>ROA</i>	-2.976 (-4.02)***	-3.467 (-4.34)***	-3.620 (-4.57)***	-2.919 (-3.94)***	-4.330 (-3.49)***	-2.709 (-2.24)**	-2.217 (-2.23)**	-3.420 (-2.91)***	-5.383 (-4.25)***	-4.234 (-3.56)***	-2.407 (-2.14)**	-3.263 (-3.23)***
<i>State</i>	-0.025 (-0.24)	-0.022 (-0.21)	-0.053 (-0.50)	-0.014 (-0.14)	-0.077 (-0.53)	-0.076 (-0.48)	0.055 (0.34)	0.080 (0.46)	-0.066 (-0.45)	-0.131 (-0.89)	-0.039 (-0.22)	-0.026 (-0.17)
<i>Large</i>	-0.010 (-3.16)***	-0.008 (-2.54)**	-0.008 (-2.40)**	-0.010 (-3.13)***	-0.004 (-0.86)	-0.011 (-2.20)**	-0.015 (-3.20)***	-0.006 (-1.25)	-0.006 (-1.32)	-0.013 (-2.61)***	-0.009 (-1.77)*	-0.008 (-1.83)*
<i>DDSize</i>	-0.115 (-0.15)	1.616 (2.03)**	1.623 (2.03)**	-0.139 (-0.18)	-0.510 (-0.44)	-1.515 (-1.21)	-0.724 (-0.66)	3.428 (2.81)***	1.036 (0.88)	0.059 (0.05)	2.581 (2.09)**	0.541 (0.53)



Table 5 (Continued)

	Big10			Non-Big10			Big10			Non-Big10			Big10			Non-Big10		
	Lower legal environment index			Higher legal environment index			Lower legal environment index			Higher legal environment index			Lower legal environment index			Higher legal environment index		
	(1) <i>Restate</i>	(2) <i>Restate</i>	(3) <i>Restate</i>	(4) <i>Restate</i>	(5) <i>Restate</i>	(6) <i>Restate</i>	(7) <i>Restate</i>	(8) <i>Restate</i>	(9) <i>Restate</i>	(10) <i>Restate</i>	(11) <i>Restate</i>	(12) <i>Restate</i>	(1) <i>Restate</i>	(2) <i>Restate</i>	(3) <i>Restate</i>	(4) <i>Restate</i>	(5) <i>Restate</i>	(6) <i>Restate</i>
<i>Growth</i>	0.508 (5.62)***	0.105 (1.03)	0.111 (1.10)	0.507 (5.59)***	0.317 (2.26)**	0.552 (4.25)***	0.613 (4.64)***	0.045 (0.26)	0.261 (1.78)*	0.116 (0.82)	-0.024 (-0.14)	0.507 (3.79)***	0.508 (5.62)***	0.105 (1.03)	0.111 (1.10)	0.507 (5.59)***	0.317 (2.26)**	0.552 (4.25)***
<i>Accrual</i>	-0.091 (-1.02)	0.306 (3.26)***	0.308 (3.27)***	-0.088 (-0.98)	0.104 (0.77)	-0.189 (-1.29)	-0.180 (-1.40)	0.376 (2.63)***	0.319 (2.38)**	0.268 (2.01)**	0.289 (1.97)**	0.003 (0.02)	-0.091 (-1.02)	0.306 (3.26)***	0.308 (3.27)***	-0.088 (-0.98)	0.104 (0.77)	-0.189 (-1.29)
<i>R_Restate</i>	0.394 (4.59)***	0.485 (5.29)***	0.480 (5.23)***	0.389 (4.54)***	0.510 (4.01)***	0.516 (3.75)***	0.288 (2.29)**	0.553 (4.02)***	0.487 (3.64)***	0.428 (3.21)***	0.429 (3.08)***	0.292 (2.51)**	0.394 (4.59)***	0.485 (5.29)***	0.480 (5.23)***	0.389 (4.54)***	0.510 (4.01)***	0.516 (3.75)***
<i>Observations</i>	7009	7009	7172	7172	3430	3430	3579	3579	3581	3581	3591	3591	7009	7009	7172	7172	3430	3430
<i>Industry FE</i>	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
<i>Year FE</i>	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
<i>R_square</i>	0.193	0.125	0.126	0.193	0.211	0.151	0.119	0.191	0.176	0.166	0.100	0.107	0.193	0.125	0.126	0.193	0.211	0.151

likely be blocked by news censorship from local governance. Therefore, if firms have negative press coverage from Top 8 journals or Top 20 financial web media but no negative news from other media, the firms are subject to higher censorship. Thus, we classify our sample into two categories: firms with negative news<sup>8</sup> from mass media exposed to lower censorship and others. We then reestimate equation (1), the results of which are listed in Table 6. The coefficients of *Sim\_vsm* and *Sim\_spec* are significantly negative only for the group with non-zero negative news from media with lower censorship. Untabulated Chi-square tests show that the coefficients of both *Sim\_vsm* and *Sim\_spec* are significantly smaller for the subsamples with high negative news coverage ( $\chi^2 = 4.38$ ,  $p$ -value = 0.036 for *Sim\_vsm*;  $\chi^2 = 5.04$ ,  $p$ -value = 0.025 for *Sim\_spec*). This indicates that auditors of firms subject to extensive negative news are more likely to differentiate KAM, hinting at a high risk of misstatements. The results further prove that legal liability motivates the auditors of firms subject to higher misstatement risk to differentiate KAM.

## 6.2. Risk Disclosure in Differentiated KAM

To further validate that auditors reduce boilerplate KAM disclosures to inform investors about the high misstatement risk of financial reports, we directly examine whether auditors disclose more risk-related terms in differentiated KAM disclosures than in boilerplate KAM disclosures. Following Kravet and Muslu (2013), we measure risk disclosure (*Risk\_num*) in KAM—the number of sentences with at least one risk-related keyword divided by the total number of sentences in the KAM paragraph for the firm. Our risk-related keywords are the uncertainty and risk-related words based on the uncertainty word list developed by Loughran and McDonald (2011) and the nature of the Chinese words (see Appendix 2 for the risk-related word list and examples of risk disclosure in KAM).<sup>9</sup> We also exclude the sentences including risk-related keywords with preceding negative words, such as “no uncertainty” or “without risk”. Table 7 reports the test results on the association between risk disclosure (*Risk\_num*) and the KAM boilerplate. According to

<sup>8</sup>The negative press coverage data is purchased from CNRDS. It uses artificial intelligence to collect and process the news from about 400 web financial media and 600 paper media in China. CNRDS uses supervised learning models and takes the following steps to determine the tone of the news coverage of a given firm. First, to construct the training data, 23 970 randomly selected news articles were manually classified into three tones: negative, positive, and neutral. The training data includes 10 370 positive news, 4500 negative news, and 9100 neutral news. Second, the test data is the text of news articles in which a company's full name, abbreviation, or stock code is mentioned for each firm-year. Third, Support Vector Machine (SVM) is used to attain the classification model by learning the training data. Finally, the classification model is used to predict the tone of test data.

<sup>9</sup>In our study, we translated the risk and uncertainty word list developed by Loughran and McDonald (2011) into Chinese to structure our risk-related word list. Based on the nature of Chinese, we also deleted the words that have similar Chinese meanings to those listed in Appendix 2.

Table 6 The effect of negative news coverage

This table presents the empirical results for the effect of negative news. The Industry Fixed Effect and Year Fixed Effect are included. The variables of interest are presented in bold. \*, \*\*, \*\*\* denote 10%, 5%, and 1% significance levels, respectively.

	High negative news coverage		Low negative news coverage	
	(1) <i>Restate</i>	(2) <i>Restate</i>	(3) <i>Restate</i>	(4) <i>Restate</i>
<i>Sim_ism</i>	<b>-1.870 (-2.41)**</b>		<b>-0.769 (-0.88)</b>	
<i>Sim_spec</i>		<b>-6.519 (-2.70)***</b>		<b>-0.302 (-0.13)</b>
<i>MDASpecificity</i>	-1.747 (-0.95)	2.447 (1.29)	2.394 (1.26)	-1.483 (-0.81)
<i>COMP</i>	1.782 (1.73)*	-1.366 (-1.34)	-1.429 (-1.40)	1.795 (1.74)*
<i>Incont</i>	1.595 (4.12)***	0.780 (1.72)*	0.850 (1.86)*	1.628 (4.21)***
<i>Size</i>	0.029 (0.63)	-0.002 (-0.05)	0.010 (0.23)	0.021 (0.45)
<i>Lev</i>	0.382 (1.02)	0.901 (2.22)**	0.897 (2.21)**	0.410 (1.09)
<i>ROA</i>	<b>-3.417 (-4.58)***</b>	<b>-3.014 (-3.85)***</b>	<b>-3.147 (-4.04)***</b>	<b>-3.373 (-4.51)***</b>
<i>State</i>	-0.176 (-1.74)*	0.101 (0.94)	0.085 (0.79)	-0.155 (-1.54)
<i>Large</i>	-0.015 (-4.85)***	-0.003 (-0.90)	-0.003 (-0.88)	-0.015 (-4.94)***
<i>DDSize</i>	0.863 (1.14)	0.592 (0.75)	0.587 (0.75)	0.848 (1.12)
<i>Growth</i>	0.293 (2.91)***	0.335 (3.64)***	0.341 (3.71)***	0.287 (2.85)***
<i>Accrual</i>	0.149 (1.73)*	0.127 (1.30)	0.121 (1.25)	0.155 (1.80)*
<i>R_Restate</i>	0.195 (2.33)**	0.765 (8.13)***	0.764 (8.13)***	0.193 (2.32)**
<i>Observations</i>	11 233	11 233	2948	2948
<i>Industry FE</i>	YES	YES	YES	YES
<i>Year FE</i>	YES	YES	YES	YES
<i>R_square</i>	0.199	0.124	0.123	0.199

Table 7 Boilerplate disclosure of KAM and risk disclosure

This table presents the empirical results for the effect of risk disclosure. All variables are defined in Appendix 1. The Industry Fixed Effect and Year Fixed Effect are included. The variables of interest are presented in bold. \*, \*\*, \*\*\* denote 10%, 5%, and 1% significance levels, respectively.

	(1) <i>Risk_num</i>	(2) <i>Risk_num</i>	(1) <i>Restate</i>	(2) <i>Restate</i>
<i>Sim_ysm</i>	<b>-0.279 (-13.23)***</b>		<b>-0.721 (-3.33)***</b>	<b>-3.320 (-3.17)***</b>
<i>Sim_spec</i>		<b>-0.444 (-6.96)***</b>	0.226 (0.37)	<b>-0.852 (-2.06)**</b>
<i>Risk_num</i>			<b>-0.582 (-7.81)***</b>	<b>-3.672 (-2.91)***</b>
<i>Sim_ysm</i> × <i>Risk_num</i>				0.098 (0.07)
<i>Sim_spec</i> × <i>Risk_num</i>				0.134 (0.19)
<i>MDASpecificity</i>	0.942 (18.74)***	0.987 (19.58)***	0.036 (0.03)	<b>-0.188 (-3.18)***</b>
<i>COMP</i>	0.032 (1.18)	0.024 (0.87)	0.105 (0.15)	1.244 (4.23)***
<i>Incont</i>	<b>-0.013 (-5.75)***</b>	<b>-0.013 (-5.63)***</b>	<b>-0.184 (-3.12)***</b>	0.007 (0.23)
<i>Size</i>	<b>-0.018 (-1.37)</b>	<b>-0.012 (-0.92)</b>	1.247 (4.24)***	0.665 (2.45)**
<i>Lev</i>	0.008 (6.75)***	0.007 (6.51)***	0.020 (0.65)	<b>-2.955 (-5.56)***</b>
<i>ROA</i>	0.025 (2.35)**	0.025 (2.37)**	0.671 (2.48)**	<b>-0.011 (-0.16)</b>
<i>State</i>	<b>-0.090 (-4.57)***</b>	<b>-0.095 (-4.77)***</b>	<b>-3.076 (-5.81)***</b>	<b>-0.009 (-4.04)***</b>
<i>Large</i>	0.002 (0.70)	0.005 (1.75)*	<b>-0.033 (-0.46)</b>	0.798 (1.49)
<i>DDSize</i>	<b>-0.000 (-2.72)***</b>	<b>-0.000 (-3.11)***</b>	<b>-0.009 (-3.93)***</b>	0.306 (4.59)***
<i>Growth</i>	0.006 (0.32)	0.004 (0.20)	0.793 (1.48)	0.105 (1.66)*
<i>Accruls</i>	0.003 (0.92)	0.003 (0.98)	0.309 (4.65)***	14 181
<i>R_Restate</i>	<b>-0.004 (-1.54)</b>	<b>-0.004 (-1.51)</b>	0.107 (1.69)*	YES
<i>Observations</i>	14 181	14 181	14 181	YES
<i>Industry FE</i>	YES	YES	YES	YES
<i>Year FE</i>	YES	YES	YES	YES
<i>R_square</i>	0.096	0.087	0.200	0.199

Table 7, the coefficients of *Sim\_spec* and *Sim\_vsm* are negative and significant, indicating that differentiated KAM includes more risk-related information.

We then add the interaction items *Risk\_num*×*Sim\_vsm* and *Risk\_num*×*Sim\_spec* to equation (1). The coefficients of *Risk\_num*×*Sim\_vsm* and *Risk\_num*×*Sim\_spec* are negative and significant, indicating that financial reports are more likely to be restated if auditors reduce KAM's boilerplate disclosure and increase risk-related disclosures in the KAM paragraph.

### 6.3. The Boilerplate of Different Types of KAM

According to CSACPA No.1504, KAM should include matters (i) with a high risk of misstatement, (ii) subject to a high level of manager estimation, and (iii) related to material transactions and events. Therefore, we classify KAM into three types based on the three reasons auditors present in audit reports. Next, we recalculate *Sim\_vsm* and *Sim\_spec* within the groups for the same reason to examine which types of KAM auditors will opt to differentiate the wording to signal increased misstatement risk.

Table 8 reports the regression results for different types of KAM: the coefficients of *Sim\_vsm* and *Sim\_spec* are significantly negative only for KAM subjected to a high level of managers' estimation, suggesting that auditors are more likely to differentiate the disclosure of KAM related to managers' estimation to inform investors about the increased misstatement risk of financial reports.

Regarding the identified misstatements, auditors will likely issue a modified opinion. However, there is always a situation where a misstatement is uncertain and difficult to detect. The accounting measurement of areas subject to managers' estimations and judgments has higher flexibility, increasing the auditor's difficulty in making accurate judgments. Therefore, auditors are more likely to differentiate the KAM wording related to managers' subjective estimations and judgments when they face increased misstatement risk rather than issuing a modified audit opinion.

## 7. Robustness Test

The revised Securities Law came into effect in March 2020 in China. A critical revision to the Securities Law further manifested the joint liability of auditors to improve their function as "watchdogs" in the securities market. Moreover, according to the revised Securities Law, the penalties for auditor negligence have increased significantly. Therefore, auditors' legal liabilities will become more realizable after 2020. Given that implementing the revised Securities Law improved the legal environment of China's securities market, the 2020 sample may not be representative. Therefore, we drop the sample of 2020 and reestimate equation (1)—untabulated results are qualitatively similar.

We also replace *Sim\_vsm* in equation (1) by recalculating the textual similarity between a firm's KAM and those of all other listed firms. In untabulated results, our prior findings hold for the alternative measure *Sim\_vsm*.

**Table 8** The effect of different types of KAM boilerplate

This table presents the empirical results for equation (1), substituting the independent variable with the textual similarity and specificity of KAM related to managers' subjective estimation, material transactions and events, and high risk of misstatement. The Industry Fixed Effect and Year Fixed Effect are included. The variables of interest are presented in bold. \*, \*\*, \*\*\* denote 10%, 5%, and 1% significance levels, respectively.

	Estimation		Influence		Misstatement	
	(1) <i>Restate</i>	(2) <i>Restate</i>	(3) <i>Restate</i>	(4) <i>Restate</i>	(5) <i>Restate</i>	(6) <i>Restate</i>
<i>Sim_rsm</i>	<b>−3.645 (−2.55)**</b>	<b>−1.335 (−2.13)**</b>	<b>−2.139 (−1.58)</b>	<b>−0.494 (−0.91)</b>	<b>5.035 (1.14)</b>	<b>1.981 (0.87)</b>
<i>Sim_spec</i>	3.411 (2.29)**	−1.421 (−0.64)	2.184 (1.20)	2.617 (1.46)	−14.565 (−1.62)	−12.874 (−1.53)
<i>MDASpecificity</i>	3.145 (3.63)***	0.429 (0.48)	−0.293 (−0.28)	−0.336 (−0.32)	15.910 (2.31)**	16.916 (2.34)**
<i>COMP</i>	1.128 (3.93)***	1.270 (3.43)***	1.694 (3.94)***	1.696 (3.96)***	1.569 (0.91)	1.473 (0.85)
<i>Incont</i>	0.036 (1.11)	0.020 (0.52)	0.045 (1.07)	0.046 (1.11)	0.200 (1.23)	0.239 (1.47)
<i>Size</i>	0.303 (1.02)	0.900 (2.61)***	0.681 (1.86)*	0.720 (1.96)**	1.236 (0.79)	1.118 (0.72)
<i>Lev</i>	−2.373 (−4.08)***	−3.120 (−4.64)***	−2.562 (−3.37)***	−2.546 (−3.33)***	−6.987 (−1.78)*	−7.547 (−1.92)*
<i>ROA</i>	0.095 (1.23)	0.055 (0.61)	0.103 (1.10)	0.121 (1.29)	−0.592 (−1.35)	−0.541 (−1.24)
<i>State</i>	−0.010 (−4.00)***	−0.010 (−3.71)***	−0.007 (−2.38)**	−0.008 (−2.45)**	−0.010 (−0.69)	−0.015 (−1.06)
<i>Large</i>	0.501 (0.83)	0.926 (1.37)	0.112 (0.15)	0.169 (0.22)	0.040 (0.01)	0.171 (0.06)
<i>DDSize</i>	0.554 (7.96)***	0.355 (4.40)***	0.356 (3.88)***	0.355 (3.87)***	0.561 (1.25)	0.425 (0.97)
<i>Growth</i>	0.187 (2.69)***	0.124 (1.57)	0.016 (0.18)	0.016 (0.18)	0.071 (0.18)	0.132 (0.35)
<i>Accruls</i>	0.449 (6.73)***	0.568 (7.28)***	0.521 (5.84)***	0.525 (5.90)***	−0.368 (−0.96)	−0.332 (−0.89)
<i>R_Restate</i>	7514	7514	3650	3650	1756	1756
<i>Observations</i>	YES	YES	YES	YES	YES	YES
<i>Industry FE</i>	YES	YES	YES	YES	YES	YES
<i>Year FE</i>	YES	YES	YES	YES	YES	YES
<i>R-Square</i>	0.033	0.240	0.075	0.075	0.176	0.157

## 8. Conclusion

A worldwide reform of audit reports was initiated to improve their informativeness and increase the transparency of audit work. In 2016, the CMF issued CSACPA No.1504, requiring auditors of firms to communicate KAM in audit reports. Standard-setters and researchers express concern that auditors tend to disclose innocuous boilerplate KAM to mitigate audit costs and legal risks, impairing its effectiveness. Using Chinese KAM data, we investigate whether differentiated KAM disclosures are informative of misstatement risk. We first measure the KAM boilerplate using VSM and textual specificity and then examine the association between the KAM boilerplate and the likelihood of financial report restatement. The empirical results reveal that unqualified financial reports with differentiated KAM are more likely to be restated than those with boilerplate KAM. This association is significant only for samples exposed to a stronger legal environment and audited by non-Big10 audit firms.

These findings support the “Disclaimer argument”—auditors will reduce the boilerplate KAM for fear of increased legal liability to signal a higher misstatement risk of client firms. Since small-scale audit firms are reluctant to break their client relationships, KAM enables auditors to mitigate their perceived liability without modifying their auditing opinions.

Our study contributes to the literature on auditor strategies for KAM disclosure. First, prior studies validate auditors choosing to issue modified opinions or resigning from auditing engagements exposed to high legal liability. Our findings suggest that under the post-KAM auditing model, auditors reduce the KAM boilerplate when clients’ misstatement risk increases. Second, Zeng *et al.* (2021) find that the KAM wording in China is not overwhelmingly standardized. Our research explores auditors’ motivations to use different wording to present KAM paragraphs—maintaining an amicable relationship with customers while mitigating legal liability. Third, our findings address concerns regarding the informativeness of expanded audit reports, indicating that auditors strategically modify the textual similarity of KAM based on the risk they perceive and that differentiated disclosure of KAM is informative for the misstatement risk of financial reports.

Our study has some limitations. It is based in China, which has a unique institutional background. How auditors change their KAM disclosure strategies varies across institutional backgrounds. Therefore, it is interesting to examine whether an association exists in a developed capital market. Moreover, although the four factors of the legal environment are expected to be positively related to the legal liability of auditing firms, the difficulty in measuring auditors’ legal liability does not allow us to directly test whether auditors with higher legal liability will likely reduce the KAM boilerplate.

## Funding

This paper was supported by the Humanities and Social Sciences Youth Foundation of Ministry of Education of China (No. 19YJCZH167), the National Natural Science



Foundation of China (No. 71872154), the Humanities and Social Sciences Research Program of Chongqing Municipal Education Commission in 2020 (No. 20SKGH012) and the Project of Southwest University of Political Science and Law of China in 2019 (No. 2019XZQN-21).

## Conflict of Interest

We declare that we have no conflict of interest.

## Ethical Approval

This article does not contain any studies with human participants or animals performed by any of the authors.

## Informed Consent

Informed consent was obtained from all individual participants included in the study.

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## Appendix 1

### Variable Definitions

Variable	Description
<i>Restate</i>	Financial misstatement risk equals to 1 if firm subsequently restated the financial reports of the current period, and 0 otherwise
<i>Sim_vsm</i>	Textual similarity of KAM in a given industry year. We used TF-IDF modified VSM to calculate the similarity score
<i>Sim_spec</i>	1 minus the proportion of words specifically describing an entity in KAM text
<i>Legal environment index</i>	Legal environment index of China (Fan <i>et al.</i> 2010)
<i>Risk_num</i>	Number of sentences including at least one risk-related keyword divided by the total number of sentences in the KAM paragraph. The risk-related keywords include “uncertainty” and “risk.” The sentences with negative words preceding are excluded
<i>Incon</i>	Equals to 1 if auditors report material defects about firms' internal control and 0 otherwise
<i>Size</i>	Natural log of the closing asset
<i>Lev</i>	Total liability of the firm divided by the total asset at the end of the year
<i>Accrul</i>	Equals to 1 if firms reported greater net cash flows from operating activities than net income
<i>Large</i>	Shareholding of the largest shareholder
<i>State</i>	Equals to 1 if the actual controller of the firm is a state-owned entity, and 0 otherwise

## Appendix 1 (Continued)

Variable	Description
<i>Growth</i>	Change of this year's revenue over last year divided by the previous year's revenue
<i>DDSize</i>	Proportion of independent directors in the director board
<i>R_Restate</i>	Equals to 1 if firms previously announced a restatement within 3 years, and 0 otherwise
<i>MDASpecificity</i>	Specificity of Management Discussion and Analysis (MD&A), measured as the number of words relating to a specific date, number, or percentage in proportion to the total words of the MD&A disclosure
<i>COMP</i>	Firms' accounting comparability, measured as the negative value of the average absolute difference between the predicted earning of firm <i>i</i> and that of an industry peer firm <i>j</i>

## Appendix 2

## Risk-Related Words List

Abeyance	Almost	Alteration	Ambiguous	Anomaly
Anticipate	Apparent	Appear	Approximate	Assumption
Cautious	Conditional	Confuses	Contingent	Crossroad
Destabilizing	Deviate	Depend	Differ	Doubt
Exposure	Fluctuate	Hidden	Imprecise	Incompleteness
Instability	Intangible	Inexact	Indefinite	Indeterminate
Improbable	Likelihood	May	Nearly	Occasionally
Ordinarily	Pending	Perhaps	Possible	Precaution
Prediction	Presume	Probable	Random	Reexamine
Reconsider	Revise	Recalculate	Reassess	Reinterpret
Risk	Rumors	Roughly	Seems	Seldom
Sometime	Somewhat	Somewhere	Speculate	Sporadic
Sudden	Susceptibility	Tentative	Tending	Undocumented
Undecided	Unusual	Unconfirmed	Undefined	Undesignated
Undetermined	Uncertain	Undetectable	Unexpected	Unfamiliar
Unguaranteed	Unhedged	Unidentified	Unknown	Unobservable
Unplanned	Unpredictable	Unseasonable	Unclear	Untested
Unwritten	Unproved	Unsettled	Variable	Vary

## Example of Risk Disclosure in KAM<sup>10</sup>

Stockcode 000008

*From KAM in auditing report of 2018.*

According to the Accounting Standards for Business Enterprises, the management conducts an impairment test on the goodwill by comparing the recoverable amount of the relevant asset group that allocates goodwill with the book value of the asset group and goodwill. The *prediction* of the recoverable amount *depends* on the present value of the future cash flow of the asset group. The management needs to make significant judgments and *assumptions*.

Stockcode 000020

*From KAM in auditing report of 2018.*

The income from the sale of products is recognized when the *risks* and rewards of commodity ownership are transferred to the customer. The domestic sales revenue is recognized when the product is sent and the other party has signed for confirmation. Since income is one of the key performance indicators of the company, in order to prevent the inherent *risk* of manipulating the time point of income recognition to achieve specific goals or expectations, we identify the authenticity of income recognition of displays and injection molded foam parts as key audit matter.

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<sup>10</sup>The risk-related words are presented in italics.