

## 财务重述、信息风险与市场认知——基于审计师视角的经验证据\*

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### 摘要

本文选择作为资本市场重要参与主体与信息中介的审计师为研究视角,考察财务重述与财务报表中存在重大会计差错的可能性之间的关系,以及财务重述对审计师审计意见决策的影响,以此为市场是否对财务重述所蕴含的重述当期信息风险存在系统性的认知偏差提供经验证据。基于2004至2006年纳入重大会计差错模型的3661个上市公司观察值和审计意见模型的3828个上市公司观察值,我们研究发现:(1)财务重述确实意味着公司具有较高的信息风险,而且财务重述的性质是其信息风险程度的重要决定因素。(2)审计师能够识别财务重述所蕴含的重述当期信息风险,并依据财务重述的性质进行差异化的风险反应(3)在控制信息风险后,审计师对财务重述公司的风险反应并没有发生显著的变化。这些结果表明,资本市场对财务重述所蕴含的重述当期信息风险可能既包含部分理性的判断,又存在一定非理性的认知偏差。

关键词:财务重述、性质、信息风险、审计师、市场认知

中图分类号:F23、F239、F830

\* 作者感谢执行编辑冯汝杰副教授和两位匿名审稿人的建设性意见,感谢中央财经大学会计学院吴溪教授和张俊生副教授的宝贵建议。本研究是国家自然科学基金“基于注册会计师视角的财务重述经济后果研究”(71102126)的阶段性成果。同时,本研究还得到教育部人文社会科学重点研究基地重大项目(10JJD630003)、教育部人文社科青年基金项目(10YJC790257)、中央财经大学“211工程”重点学科建设项目和北京市教育委员会共建项目专项资助。

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## 一、问题的提出

在国内外资本市场上，上市公司财务重述问题日益凸现。据Scholz (2008) 的统计分析，1997至2006短短十年间，美国财务重述公司的数量增长近18倍，重述公司规模提高8.5倍。在我国，上市公司的财务重述也正变得日趋频繁。曹强(2010) 研究结果表明，2003至2006年间，财务重述公司占全部上市公司的比例为11.68%，即每10家上市公司就有1家进行财务报表重述；而且重述对净收益的影响程度逐年提高，重大重述的比例由2003年的5.80%攀升至2006年的15.79%。在此背景下，财务重述的经济后果逐渐成为监管机构和学术界关注的焦点，而且该领域基于投资者、债权人和证券分析师等市场主体的分析已经形成了较为丰富的研究成果(GAO, 2002; Palmrose *et al.*, 2004; Scholz, 2008; Graham *et al.*, 2008)。

那么，财务重述为何会引发一系列的经济后果呢？现有的理论解释是财务重述不仅表明公司前期披露的财务报表存在重大会计差错，具有较高的信息风险，更重要的是重述行为动摇了信息使用者对公司财务报告系统的信心，从而使资本市场所认知的重述当期公司的信息风险也显著提高(Hribar and Jenkins, 2004; Wilson, 2008; Kravet and Shevlin, 2010)。然而，资本市场对财务重述公司信息风险的认知，以及不同性质财务重述公司信息风险的认知，是基于理性的判断，还是纯粹感性的认识，抑或是两者兼而有之呢？市场是否存在系统性的认知偏差呢？目前尚没有研究对此进行讨论。基于此，本文选择作为资本市场重要参与主体与信息中介的审计师为研究视角，基于2004至2006年纳入重大会计差错模型的3661个上市公司观察值和审计意见模型的3828个上市公司观察值，考察财务重述与财务报表中存在重大会计差错的可能性之间的关系，以及财务重述对审计师审计意见决策的影响，以此对市场是否对财务重述所蕴含的重述当期信息风险存在系统性的认知偏差提供经验证据，填补此方面理论研究的不足。

之所以选择审计师视角主要出于两方面的考虑。首先，审计师是资本市场重要的参与主体与信息中介，与其他市场主体相比拥有更多的专业知识、技能和信息优势。而且，由于职业的要求，审计师又具有更为谨慎和客观的态度。审计师对财务重述所蕴含的重述当期信息风险的认知在一定程度上能很好的衡量市场的认知水平。因此，研究其如何解读财务重述所蕴含的重述当期信息风险，能够从总体上把握资本市场对财务重述公司信息风险的认知偏差。其次，审计师的审计目标是对公司财务报告的公允性和合法性发表审计意见，审计师主要关注客户当期财务报告的质量，其决策行为基本不受公司未来现金流量的影响。因此，基于审计师视角的研究能很好的排除财务重述财富效应<sup>2</sup>的干扰，能够为理解市场对财务重述信息风险的认知提供较为直接的经验证据。

我们研究发现，首先，在财务报告中，财务重述公司比非重述公司更可能存在重大错报；财务重述的性质越严重，其财务报告中存在重大错报的可能性和严重程度也越高。这说明财务重述确实意味着公司存在较高的信息风险，而且财务重述的性质是决定其信息风险程度的重要因素。其次，审计师更倾向于对财务重述公司出

<sup>2</sup> 作财务重述的财富效应是指，由于财务重述修正了公司的历史财务数据，从而可能改变信息使用者对公司未来现金流量预期的现象(Graham *et al.*, 2008)。

具严厉审计意见,并且财务重述的性质越严重,审计师出具严厉审计意见的可能性越高。审计师能够对财务重述做出风险反应,且能够依据重述性质做出差异化的风险反应,这至少说明审计师能够部分理性的识别财务重述所蕴含的重述当期信息风险。最后,在控制信息风险后,审计师对财务重述公司的风险反应并没有发生显著的变化。这说明审计师对财务重述公司信息风险的认知也包含部分感性的成分。综合上述实证结果,我们可知,市场对财务重述所蕴含的重述当期信息风险可能既包含部分理性的判断,又存在一定非理性的认知偏差。

本文在理论上的主要贡献在于:(1)已有研究将财务重述的经济后果归因为市场对财务重述公司信息风险的重新认知。然而,这种重新认知是市场基于财务重述公司信息风险的理性判断,还是市场的非理性感受,尚没有研究进行深入考察。而本文基于审计师视角的研究则进一步厘清了财务重述经济后果的产生机理,弥补了此方面理论研究的缺失。(2)现有文献虽然已经从投资者、债权人等市场主体的角度对财务重述的经济后果进行了细致考察,但却忽视了作为资本市场重要参与主体与信息中介审计师对财务重述的反应。本文研究其如何解读财务重述所蕴含的重述当期信息风险,是否以及如何通过决策行为向其他市场主体传递有价值的信号,不仅扩展了财务重述经济后果的研究领域,同时其研究结论对于提高资本市场的运行效率也至关重要。(3)在已有的审计文献中,与声誉相关的研究主要局限于审计师自身声誉,其研究重点是考察审计师声誉对审计定价和审计质量的影响。而对于客户声誉是否以及如何影响审计师的行为决策却很少有学者进行研究。本文通过考察审计师对财务重述所显示的客户声誉水平的反应将进一步拓展审计师风险评估与管理行为研究。

此外,本文的研究结论对监管机构、会计师事务所和相关学者还具有一定的含义。对于监管机构而言,要有效治理财务重述行为,在治理方向上应淡化重述发起方的角色,加强对该类公司重述当期信息风险的监管,逐渐将监管的方向从发起重述转向预防重述;在治理策略上,应深入解读重述背后的内在原因,并在此基础上制定有针对性的治理措施,做到有的放矢;在治理方法上,可以考虑出台明晰化的财务重述信息披露指引,进一步规范财务重述的公告时间、公告内容和公告的格式,以此增强财务重述信息的透明度。对于会计师事务所而言,亟需不断提高其风险解读与识别能力,以充分发挥其外部治理作用;具体措施包括强化以风险为导向的审计执业准则体系的执行力度,激励会计师事务所内部质量控制创新,严格限制审计师与客户经济联系和私人关系以及审计师个体特征对其职业判断的不利影响,并积极构建会计师事务所声誉机制和文化约束机制。对于相关学者而言,我们的研究结论也将促使其在选择财务重述作为替代变量(如盈余操纵、财务报告质量等)时更为谨慎,只有深入理解了财务重述的性质,才能准确判断其是否能作为研究需要的替代变量。

文章后面部分安排如下:第二部分是文献回顾与研究假设;第三部分是研究设计;第四部分是样本选择及重述与差错性质的判定;第五部分是描述性统计与实证结果;第六部分是稳健性检验;第七部分是研究结论。

## 二、文献回顾与研究假设

### (一) 财务重述经济后果文献评述

国外学者对财务重述经济后果的研究比较早，已有文献基于不同的市场主体为此提供了初步的经验证据。在投资者方面，相关研究主要围绕着财务重述对投资者投资决策的影响展开。GAO (2002)、Palmrose *et al.* (2004) 与 Scholz (2008) 分别考察短时间窗和长时间窗内投资者的反应，结果均发现显著负向的累积超额回报。相关文献还进一步显示，财务重述披露后，公司资本成本提高 (Hribar and Jenkins, 2004)，其盈余公告的市场反应也明显减弱 (Wilson, 2008)。权益融资之外，公司融资的另外一条重要渠道便是债权融资。Graham *et al.* (2008) 考察了银行对财务重述的反应。与重述前发放的贷款相比，重述后发放的贷款的价差显著较高，期限显著较短，需要担保的可能性更大，限制性条款更多。此外，财务重述披露后，分析师降低了对公司的盈利预测，而且分析师盈利预期的方差也显著增加 (Palmrose *et al.*, 2004)。

进一步的，研究者还依据重述性质对财务重述的经济后果进行细致的分类研究。Palmrose *et al.* (2004) 发现，重述公司在重述公告日当天和第二天的累计超常收益平均为 -9.2%，而涉嫌盈余操纵的重述公司则高达 -20%。Hirshey *et al.* (2005) 也发现，涉嫌盈余操纵的财务重述公司在重述公告前后三天的累计超常收益高达 -21.80%，而非盈余操纵公司平均为 -7.73%。同样，Scholz (2008) 考察了 1997 至 2006 年间美国发生的 3310 家公司的财务重述事件引发的市场反应，发现在财务重述公告当天和随后一天的两个交易日内，财务重述公司的平均累计超常收益为 -3%，而因盈余操纵导致财务重述的公司其平均累计超常收益则为 -13%。

在我国，财务重述经济后果方面的研究非常有限，而且主要是对国外相关文献的梳理 (王毅辉与魏志华, 2008；何威风, 2010；陈晓敏、胡玉明与周茜, 2010)。在为数不多的实证研究中，王霞与张为国 (2005) 选取以前年度存在重大会计差错并进行追溯调整的上市公司为研究样本，发现审计意见的出具受到财务重述幅度及涉及项目数量的影响。陈凌云 (2006) 研究发现，监管型补充更正公告有负向的市场反应。周洋与李若山 (2007) 研究表明，市场对于调低净盈余、涉及资金占用和担保事项的补充更正公告的反应显著为负。魏志华、李常青与王毅辉 (2009) 在细分补充更正公告类型的基础上，对我国上市公司补充更正公告的市场效应进行了较为系统的研究；结果发现，涉及盈余调整的补充更正公告具有显著负向的市场反应。然而，应该指出的是，我国上市公司的补充更正公告还不是严格意义上的财务重述，更为准确的是涉及会计差错的报表更正。

从上述文献回顾中，我们可以看出，国外学者已经基于投资者、债权人和证券分析师等市场主体的角度研究表明，财务重述会引发一系列严重的经济后果。虽然国内研究在广度和深度上与国外研究相比都存在很大的差距，但总体而言，严格意义上的财务重述也会导致负面的市场反应。财务重述是对前期财务报告中存在的重大会计差错的更正，表明前期披露的财务报告是低质量的。那么，在重述期，财务重述为何会引发资本市场的反应呢？为什么不同性质的财务重述会引发差异化的市场反应呢？

研究者对此的解释是，财务重述不仅表明公司前期披露的财务报告具有较高的信息风险，更重要的是重述行为动摇了信息使用者对公司财务报告系统的信心，从而使资本场所认知的重述期公司的信息风险显著提高 (Kravet and Shevlin, 2010)。而且，财务重述的性质越严重，信息使用者对公司财务报告系统的信心越弱，资本场所认知的重述公司的信息风险也越高。然而，市场对财务重述以及不同性质的财务重述所蕴含的重述当期信息风险的认知是出于理性的判断，还是非理性的感受，抑或是两者兼而有之呢？目前尚没有研究进行细致的考察。

## (二) 财务重述与信息风险

为了弥补上述理论研究的缺失，我们考察四个问题。第一个问题是：财务重述行为是否意味着重述当期公司存在较高的信息风险？对于这个问题的解答需要我们探讨公司声誉与信息风险的关系。<sup>3</sup> Wilson (1985) 与 Weigelt and Camerer (1988) 认为，声誉较高的公司更强调责任感、可信性和可靠性，并且会将这些价值观融入到他们的企业文化之中，以至于这些价值观不仅反映在正式的规则和制度中，更重要的是反映在非正式的规则和传统中。当正式合约无法具体说明所有可能的后果时，这些非正式的规则和传统则可以引导管理层、治理层和其他员工采取恰当的行动 (Hermalin, 2001)。

具体到公司的财务报告系统，公司声誉可能通过各种管道对其产生影响 (Cao, Myers, and Omer, 2012)。首先，具有良好声誉的公司可能存在某种企业文化或氛围，激励治理层、管理层和其他员工在财务报表编制和监督过程中更加诚实、勤勉和可信；其次，对于具有良好声誉的公司，其治理层和管理层可能更愿意增加投入以加强财务报告质量，包括在公司财务与内部审计部门采用先进的信息技术、雇佣高素质的职员；最后，对于声誉较好的公司，其治理层和管理层可能更愿意聘请具有财务专长且正直、诚实的财务主管。由此，我们可知，从理论上讲，公司声誉与信息风险存在负相关关系。Cao, Myers, and Omer (2012) 研究发现，公司声誉水平越高，则其财务报表中存在重大错报的可能性越小，也为此提供了相应的经验证据。财务重述意味着公司前期已经披露的财务报告存在重大会计差错，这表明财务重述公司的声誉，特别是与财务报告系统相关的声誉处于较低的水平。依据上述公司声誉与信息风险的关系，我们可以推论出财务重述公司具有较高的信息风险，其财务报告中存在重大错报的可能性也较大。由此，我们提出假设 1a：

**H1a：相对于非重述公司，重述公司财务报表中存在重大错报的可能性更大。**

第二个问题是：财务重述的性质越严重是否意味着重述当期公司的信息风险越高？由于监管机构和学术界长期以来将关注的焦点集中于财务重述的盈余操纵动机 (张为国与王霞, 2004; Callen *et al.*, 2008; Kedia and Philippon, 2009)，所以依据性

<sup>3</sup> 公司声誉机制和公司治理机制是相关的，两者都能减少代理问题，基于信息不对称和道德风险的分析性模型已经为此提供了证据支持。然而，在降低公司代理问题的机理上，两者存在根本性的差异。声誉机制依赖于参与者的自律，不需要正式的合约；同时，声誉机制还强调参与者之间长期动态的互动。而公司治理机制则依赖于正式的合约和外部的监管，且许多公司治理模型是建立在单期环境之下。之所以选择声誉机制的角度展开论述，是因为其能够更好的解释财务重述蕴含的信息风险。



质进行的细分研究一般仅将财务重述区分为盈余操纵和非盈余操纵。然而，Plumlee and Yohn (2010) 在对财务重述披露信息进行深入解读后却发现，财务重述更正的主要不是由管理层盈余操纵导致的前期差错，而是由公司内部控制缺陷导致的前期差错。此外，财务重述还会更正由会计准则不适应导致的前期差错。

会计准则不适应引发的财务重述与公司自身的关系不大，更多的是表明相应的会计准则和会计制度尚不清晰和完善。而内部控制缺陷引发的财务重述则表明公司管理能力欠缺。管理层盈余操纵引发的财务重述更是表明公司品质存在问题。因此，从会计准则的不适应性到内部控制缺陷，再到管理层盈余操纵，财务重述的性质越来越严重。这同时也意味着重述公司的声誉，特别是与财务报告系统相关的声誉越来越差。而据前所述，公司声誉越差，则其信息风险越高，公司财务报表中存在重大错报的可能性也越大。在此基础上，我们提出假设 1b：

**H1b：财务重述的性质越严重，则公司财务报表中存在重大错报的可能性越大。**

### (三) 财务重述与审计意见

如果假设 1a 和 1b 成立，那么我们接下来的问题是：市场能否理性的识别财务重述所蕴含的重述当期信息风险？在此，我们选择审计师角度考察市场对财务重述信息风险认知。这是因为，作为资本市场重要的信息中介，审计师对财务重述所蕴含的重述当期信息风险的认知在一定程度上能很好的衡量市场的认知水平。同时，审计师主要关注客户当期财务报告的质量，其行为决策基本不受公司未来现金流量的影响，基于审计师视角的研究能很好的排除财务重述财富效应的干扰，能够为理解市场对财务重述信息风险的认知提供较为直接的经验证据。

如果审计师能够理性的识别出财务重述所蕴含的重述当期信息风险，那么为了将审计风险保持在可接受的范围内，审计师将采取措施予以应对，而最为直接和有效的风险管理策略则可能是出具严厉的审计意见 (Kim *et al.*, 2006)。而且，如果审计师能够理性的识别出不同性质财务重述所蕴含的重述当期信息风险的程度，那么审计师对不同性质财务重述公司出具严厉审计意见的可能性将存在差异。<sup>4</sup> 辛清泉与黄昆 (2009) 研究发现，在出具审计意见时，审计师对于不同方式的盈余管理会采取差别报告策略，这也为我们的假设提供了间接地经验证据。由此，我们提出假设 2a 和 2b：

**假设 2a：相对于非重述公司，审计师更倾向于对财务重述公司出具严厉审计意见。**

**假设 2b：财务重述的性质越严重，则审计师出具严厉审计意见的可能性越大。**

<sup>4</sup> 2004年1月6日，证监会发布了《关于进一步提高上市公司财务信息披露质量的通知》，其中明确指出，审计师在审计时应对公司财务重述的处理与披露，尤其是对财务重述的性质予以适当关注，并恰当地出具审计意见。

如果上述假设成立，我们最后的问题是：市场对财务重述所蕴含的重述当期信息风险的认知是基于完全理性还是有限理性？<sup>5</sup>在这里，我们同样以审计师角度研究市场对财务重述信息风险认知。如果审计师对财务重述所蕴含的重述当期信息风险的认知出于完全理性，那么在控制了信息风险后，审计师对重述公司与非重述公司出具严厉审计意见的可能性将趋于一致，同时审计师对不同性质财务重述公司出具严厉审计意见的可能性也将趋于一致。由此，我们提出假设3a和3b：

**假设3a：**在控制了公司信息风险后，审计师对重述公司与非重述公司出具严厉审计意见的可能性不再存在差异。

**假设3b：**在控制了公司信息风险后，审计师对不同性质财务重述公司出具严厉审计意见的可能性不再存在差异。

### 三、研究设计

#### (一) 重大会计差错模型

我们借鉴Cao, Myers, and Omer(2012)的研究，构建了如下重大会计差错模型，以检验财务重述所蕴含的重述当期信息风险。

$$\begin{aligned}
 MISSTATE/MISSTATE\_ORDER = & \beta_0 + \beta_1 RESTATE/RESTATE\_ORDER \\
 & + \beta_2 LNASSET + \beta_3 LEVERAGE + \beta_4 ROA \\
 & + \beta_5 REVRATIO + \beta_6 STORATIO + \beta_7 LOSS \\
 & + \beta_8 AGE + \beta_9 MERGER + \beta_{10} FINANCING \\
 & + \beta_{11} AFFILIATE + \beta_{12} SEGMENT \\
 & + \beta_{13} SALE\_GROWTH + \beta_{14} OWNERSHIP \\
 & + \beta_{15} BOARD\_SIZE + \beta_{16} BOARD\_CONFER \\
 & + \beta_{17} CHAIR\_CEO + \beta_{18} BOARD\_INDEP + \beta_{19} MSHARE \\
 & + \beta_{20} BOARD\_AUDIT + \beta_{21} BIG4 + \beta_{22} SPECIALIST \\
 & + \beta_{23} IMPOR + \beta_{24} YEAR_{2004} + \beta_{25} YEAR_{2005} + \beta_{25} \\
 & + i \sum_{i=1}^4 REGION_i + \beta_{29} + j \sum_{j=1}^{11} INDUSTRY_j + \varepsilon \quad (1)
 \end{aligned}$$

模型1相关变量的解释如下：

#### 1. 因变量

*MISSTATE*与*MISSTATE\_ORDER*为模型1的因变量。*MISSTATE*是哑变量，如果公司财务报表中存在重大会计差错，*MISSTATE*取值为1，否则为0。*MISSTATE\_ORDER*为有序多项分类变量，用于进一步衡量重大会计差错性质的严重程度；如果公司当期不存在重大会计差错，*MISSTATE\_ORDER*取值为0；如果当期重大会计差

<sup>5</sup> 已有研究表明，由于受到情绪、心态等因素的影响，投资者认知资源受到限制，从而对盈余信息的认知出现非理性的偏差(李小明与张鸣，2011)。

错是由会计准则不适应性导致的，取值为1；如果当期重大会计差错是由公司内部控制缺陷导致的，取值为2；如果当期重大会计差错是由管理层盈余操纵导致的，取值为3。

## 2. 检验变量

*RESTATE*与*RESTATE\_ORDER*为模型1中的检验变量，分别用于验证假设1a和1b。*RESTATE*为哑变量，如果公司当期进行财务重述，*RESTATE*取值为1，否则为0。*RESTATE\_ORDER*为有序多项分类变量，用于进一步衡量财务重述性质的严重程度。如果公司当期没有进行财务重述，*RESTATE\_ORDER*取值为0；如果当期财务重述更正的是由会计准则不适应性导致的前期差错，取值为1；如果当期财务重述更正的是由公司内部控制缺陷导致的前期差错，取值为2；如果当期财务重述更正的是由管理层盈余操纵导致的前期差错，取值为3。如果假设1a和1b成立，那么我们期望*RESTATE*与*RESTATE\_ORDER*的系数均显著大于零。

## 3. 控制变量

模型1中加入了一系列控制变量以控制其它因素的影响。首先，我们控制公司的一般特征。其中，*LNASSET*为公司总资产的自然对数，虽然已有研究并没有发现公司规模与会计差错之间存在相关关系，但是我们仍然用*LNASSET*控制公司规模的影响。*LEVERAGE*为公司的资产负债率，用于控制债务契约条款(Watts and Zimmerman, 1986)的影响。*ROA*是公司资产收益率，用于控制公司业绩的影响。由于应收账款与存货占总资产的比例较高时，公司财务报表中发生错报的可能性较大(Feroz *et al.*, 1991; Summers and Sweeney, 1998)，因此在模型1中分别加入应收账款占总资产的比例(*REVRATIO*)和存货占总资产的比例(*STORATIO*)，以控制此方面的影响。*LOSS*为哑变量，如果公司前一年发生亏损，取值为1，否则取值为0；*LOSS*用于控制上市公司ST制度的影响。*AGE*为公司的上市年数的平方根，用于控制公司上市年限的影响。

已有研究发现公司的并购重组行为和融资行为与会计差错相关(Kinney *et al.*, 2004; Dechow *et al.*, 1996; Erickson *et al.*, 2006)，因此我们在模型1中加入*MERGER*和*FINANCING*以控制这两方面的影响。*MERGER*为哑变量，如果公司当年发生并购重组，则取值为1，否则为0。*FINANCING*也为哑变量，依据Cao, Myers, and Omer (2012)的定义，如果在公司没有发生并购重组的情况下，其年末股票数量比上年增加10%以上，或者其年末长期负债增加20%以上，则*FINANCING*取值为1，否则为0。Ashbaugh-Skaife *et al.* (2008)研究发现，公司业务的复杂性会影响财务报告中发生错报的可能性，因此我们以*AFFILIATE*和*SEGMENT*控制公司业务复杂性的影响。其中，*AFFILIATE*为公司纳入合并报表范围的子公司个数的平方根；*SEGMENT*是公司经营项目的数量。*SALE\_GROWTH*为公司主营业务收入的增长率，以控制公司成长



性的影响。另外，模型中包含4个地区哑变量、<sup>6</sup> 2个年度哑变量，<sup>7</sup>和11个行业哑变量，<sup>8</sup>因为由于地区经济发展水平、商业和法律环境以及微观经济环境的差异，公司财务报表在不同地区、期间和行业发生错报的可能性存在差异。由于这些公司一般特征与会计差错的关系并没有一致的理论解释，同时相关的实证结果也不统一，因此我们在这里不预期其可能的影响方向。

其次，我们控制公司治理特征。*OWNERSHIP*表示上市公司实际控制人类型，如果上市公司由国有控股，取值为1，否则为0。*BOARD\_SIZE*为公司董事会中董事的人数，用于衡量董事会的规模。*BOARD\_CONFER*为公司董事会会议的次数。*CHAIR\_CEO*为董事长与总经理两职设置情况，如果董事长与总理由一人兼任，则取值为1，副董事长、董事兼任总经理取值为2，董事与总经理完全分离取值为3。*BOARD\_INDEP*为独立董事占董事会成员的比例，用于衡量董事会的独立性。*MSHARE*为年末公司全部高级管理人员(含董事、监事和高管)所持有的股票总数占总股本的比例。*BOARD\_AUDIT*表示审计委员会的设置情况，如果公司设置审计委员会，取值为1，否则为0。

对于上市公司实际控制人，如果上市公司由国有控股，那么更容易产生内部人控制和一股独大问题，从而会提高公司发生重大会计差错的可能性。对于董事会规模，Yermack(1996)发现，公司董事会规模越小越有效。对于董事会会议，其次数越多，说明其监管越严，公司财务报表发生错报的可能性也会越小。对于董事长与总经理的职责，两者职责分离越清晰，则董事会的监管可能越有效。对于董事会的独立性，Beasley(1996)与Klein(2002)的研究分别表明，董事会越独立，财务报表舞弊的可能性越低。对于高管持股，Warfield *et al.*(1995)研究发现，高管持股比例越高，财务报告质量也越高，发生重大会计差错的可能性越小。对于审计委员会，DeFond and Jiambalvo(1991)的研究表明，审计委员会的成立能降低公司高估盈余的可能性；同时Dechow *et al.*(1996)发现设立审计委员会的公司发生舞弊的可能性更小。由此，我们期望*OWNERSHIP*与*BOARD\_SIZE*的系数为正，*BOARD\_CONFER*、*CHAIR\_CEO*、*BOARD\_INDEP*、*MSHARE*和*BOARD\_AUDIT*的系数为负。

最后，我们控制事务所特征。*BIG4*表示事务所规模，如果事务所为国际“四大”所，*BIG4*取值为1，否则为0。事务所规模越大，其审计质量可能越高(DeAngelo, 1981)，则越可能防止财务报告中出现重大会计差错。*SPECIALIST*表示事务所行业专业化程度，我们借鉴Zeff and Fossum(1967)的市场份额法基于客户销售收入计算事务所行业份额；审计师行业专长可能提高客户的财务报告质量(Dunn and Mayhew, 2004)，减少错报的发生(Carcello and Nagy, 2004)。由此，我们期望*BIG4*与*SPECIALIST*的系数为负。*IMPOR*表示客户的重要性水平，我们采用特定上市公司客户资产占事务所所有上市公司客户资产的比例进行衡量。由于客户重要性

<sup>6</sup> 对于地区变量，我们参照Taylor and Simon(1999)的做法，以经济发展水平将中国划分为5个地区，引入4个地区哑变量：如果上市公司位于上海、北京、天津、广东、浙江时，*REGION<sub>1</sub>*取值为1，否则为0；如果上市公司位于福建、江苏、山东、辽宁时，*REGION<sub>2</sub>*取值为1，否则为0；如果上市公司位于黑龙江、吉林、新疆、海南、湖北和河北时，*REGION<sub>3</sub>*取值为1，否则为0；如果上市公司位于贵州、青海、甘肃、宁夏和陕西时，*REGION<sub>4</sub>*取值为1，否则为0。

<sup>7</sup> 由于我们的样本涉及三个会计年度，因此在模型1中包含2个年度哑变量*YEAR<sub>2004</sub>*和*YEAR<sub>2005</sub>*。

<sup>8</sup> 对于行业变量，根据中国证监会2001年颁布的《上市公司行业分类指引》，样本观察值分布于12个一级行业分类，由此我们设定了11个行业哑变量。

质量的关系并没有形成一致的结论 (Reynolds and Francis, 2001; Craswell *et al.*, 2002; Gaver and Paterson, 2007; Ghosh *et al.*, 2009; Chen, Sun, and Wu, 2010), 在此我们不预期其影响方向。

## (二) 审计意见模型

依据已有研究 (DeFond *et al.*, 1999; Chen *et al.*, 2001; 陈小林与张立民, 2007), 我们构建了如下审计意见决策模型, 以检验资本市场对财务重述所蕴含的重述当期信息风险的认知。

$$\begin{aligned}
 OPIN = & \beta_0 + \beta_1 RESTATE/RESTATE\_ORDER + \beta_2 PREOPIN + \beta_3 LNASSET \\
 & + \beta_4 LEVERAGE + \beta_5 ROA + \beta_6 AR\_IN + \beta_7 LOSS + \beta_8 AGE \\
 & + \beta_9 SALE\_GROWTH + \beta_{10} OWNERSHIP + \beta_{11} BOARD\_SIZE \\
 & + \beta_{12} BOARD\_CONFER + \beta_{13} CHAIR\_CEO + \beta_{14} BOARD\_INDEP \\
 & + \beta_{15} MSHARE + \beta_{16} BOARD\_AUDIT + \beta_{17} FOREIGN + \beta_{18} BIG4 \\
 & + \beta_{19} SPECIALIST + \beta_{20} IMPOR + \beta_{21} YEAR_{2004} + \beta_{22} YEAR_{2005} \\
 & + \beta_{22} + i \sum_{i=1}^4 REGION_i + \beta_{26} + j \sum_{j=1}^{11} INDUSTRY_j + \varepsilon \quad (2)
 \end{aligned}$$

$$\begin{aligned}
 OPIN = & \beta_0 + \beta_1 RESTATE/RESTATE\_ORDER + \beta_2 MISSTATE/MISSTATE\_ORDER \\
 & + \beta_3 DA + \beta_4 PREOPIN + \beta_5 LNASSET + \beta_6 LEVERAGE + \beta_7 ROA \\
 & + \beta_8 LOSS + \beta_9 AR\_IN + \beta_{10} GROWTH + \beta_{11} AGE + \beta_{12} OWNERSHIP \\
 & + \beta_{13} BOARD\_SIZE + \beta_{14} BOARD\_CONFER + \beta_{15} CHAIR\_CEO \\
 & + \beta_{16} FOREIGN + \beta_{17} BOARD\_INDEP + \beta_{18} MSHARE + \beta_{19} BOARD\_AUDIT \\
 & + \beta_{20} BIG4 + \beta_{21} SPECIALIST + \beta_{22} IMPOR + \beta_{23} YEAR_{2004} + \beta_{24} YEAR_{2005} \\
 & + \beta_{24} + i \sum_{i=1}^4 REGION_i + \beta_{28} + j \sum_{j=1}^{11} INDUSTRY_j + \varepsilon \quad (3)
 \end{aligned}$$

模型 2 和模型 3 相关变量的解释如下：

### 1. 因变量

*OPIN* 为模型 2 和模型 3 中的因变量, 它表示审计意见的严厉程度。其为哑变量, 如果审计师出具非标准审计意见, *OPIN* 取值为 1, 否则为 0。

### 2. 检验变量

在模型 2 中, 检验变量为 *RESTATE* 与 *RESTATE\_ORDER*, 分别用于验证假设 2a 和 2b。其定义与模型 1 中的一致。如果假设 2a 和 2b 成立, 那么我们期望 *RESTATE* 与 *RESTATE\_ORDER* 的系数显著为正。在模型 3 中, *RESTATE* 与 *RESTATE\_ORDER* 同样为检验变量, 分别用于验证假设 3a 和 3b。如果假设 3a 和 3b 成立, 那么我们期望 *RESTATE* 与 *RESTATE\_ORDER* 的系数在统计意义上不再显著。

### 3. 控制变量

模型2和模型3中还包含一系列的控制变量。*PREOPIN*为上期审计意见，上期审计师出具非标准审计意见时，取值为1，否则为0。*AR\_IN*为存货与应收账款占总资产的比例。*FOREIGN*为哑变量，如果公司前十大股东中存在外资股东，取值为1，否则为0。在模型3中，我们还引入*MISSTATE*、*MISSTATE\_ORDER*和*DA*以控制样本公司的信息风险。其中，*MISSTATE*与*MISSTATE\_ORDER*的定义同模型1中的一致；*DA*为公司带符号的操控性应计利润，我们采用分年度分行业的Jones模型计算获得。<sup>9</sup>之所以引入*DA*是因为信息风险不仅来自于公司违反公认会计准则，同时还可能来自于公司在公认会计准则范围内对应计项目的操控。另外，Hribar and Nichols (2007)提供的证据表明，带符号的操控性应计利润在计量盈余质量上要优于不带符号的操控性应计利润。

模型2与模型3中其他控制变量与模型1中的定义一致，在此不再累述。基于已有研究(DeFond *et al.*, 1999; Chen *et al.*, 2001)，我们预期*PREOPIN*、*LEVERAGE*、*LOSS*、*AR\_IN*、*AGE*、*BOARD\_SIZE*、*MISSTATE*、*MISSTATE\_ORDER*和*DA*的回归系数显著为正，*LNASSET*、*ROA*、*SALE\_GROWTH*、*BOARD\_CONFER*、*CHAIR\_CEO*、*FOREIGN*、*BOARD\_INDEP*、*MSHARE*、*BOARD\_AUDIT*、*BIG4*和*SPECIALIST*的系数显著为负。由于股权性质与客户重要性对审计意见决策行为的影响尚没有形成一致的结论，因此我们不预期*OWNERSHIP*和*IMPOR*的方向。

### (三) 研究变量定义汇总

表1汇总了上述研究模型中所有变量的定义。另外，考虑到文章篇幅的限制，在实证结果中，我们没有报告年度、地区和行业哑变量的实证结果。

表1 变量定义

因变量	
<i>MISSTATE</i>	哑变量，如果公司当期财务报表中存在重大会计差错，取值为1，否则为0。
<i>MISSTATE_ORDER</i>	有序多项分类变量；如果公司当期不存在重大会计差错，取值为0；如果当期重大会计差错是由会计准则不适应性导致的，取值为1；如果当期重大会计差错是由公司内部控制缺陷导致的，取值为2；如果当期重大会计差错是由管理层盈余操纵导致的，取值为3。
<i>OPIN</i>	哑变量，如果审计师出具非标准审计意见，取值为1，否则为0。

<sup>9</sup> 在对行业分类时，仍然按照中国证监会2001年颁布的《上市公司行业分类指引》，其中制造业按二级行业分类，其他行业按一级行业分类，并剔除不满30个样本的行业。

**检验变量**

<i>RESTATE</i>	哑变量，如果公司当期进行财务重述，取值为1，否则为0。
<i>RESTATE_ORDER</i>	有序多项分类变量；如果公司当期没有进行财务重述，取值为0；如果当期财务重述更正的是由会计准则不适应性导致的前期差错，取值为1；如果当期财务重述更正的是由公司内部控制缺陷导致的前期差错，取值为2；如果当期财务重述更正的是由管理层盈余操纵导致的前期差错，取值为3。

**控制变量**

<i>PREOPIN</i>	哑变量，上期审计师出具非标准审计意见时，取值为1，否则为0。
<i>DA</i>	带符号的操控性应计利润，我们采用分年度分行业的Jones模型计算获得。
<i>LNASSET</i>	公司总资产的自然对数。
<i>LEVERAGE</i>	公司的资产负债率。
<i>ROA</i>	公司资产收益率。
<i>REVRATIO</i>	应收账款与总资产的比值。
<i>STORATIO</i>	存货与总资产的比值。
<i>AR_IN</i>	应收账款与存货占总资产的比值。
<i>LOSS</i>	哑变量，如果公司前一年发生亏损，取值为1，否则为0。
<i>AGE</i>	公司上市年数的平方根。
<i>MERGER</i>	哑变量，如果公司当年发生并购重组，取值为1，否则为0。
<i>FINANCING</i>	哑变量，如果公司当年没有发生并购重组，且年末股票数量比上年增加10%以上，或者公司没有发生并购重组，且年末长期负债增加20%以上，则取值为1，否则为0。
<i>AFFILIATE</i>	纳入公司合并报表范围的子公司个数的平方根。
<i>SEGMENT</i>	公司经营项目的数量。
<i>SALE_GROWTH</i>	公司主营业务收入的增长率。
<i>OWNERSHIP</i>	上市公司实际控制人类型，如果上市公司由国有控股，则取值为1，否则为0。
<i>BOARD_SIZE</i>	公司董事会中董事的人数。
<i>BOARD_CONFER</i>	公司董事会会议的次数。
<i>CHAIR_CEO</i>	董事长与总经理两职设置情况，如果董事长与总经理由一人兼任，取值为1，副董事长、董事兼任总经理取值为2，董事与总经理完全分离取值为3。
<i>BOARD_INDEP</i>	独立董事占董事会成员的比例。
<i>MSHARE</i>	年末公司全部高级管理人员所持有的股票总数占总股本的比例。

<i>BOARD_AUDIT</i>	审计委员会的设置情况，如果公司设置审计委员会，取值为1，否则为0。
<i>FOREIGN</i>	哑变量，如果公司前十大股东中存在外资股东，则取值为1，否则为0。
<i>BIG4</i>	哑变量，如果会计师事务所为国际“四大”所，取值为1，否则为0。
<i>SPECIALIST</i>	事务所行业专门化程度，我们借鉴 Zeff and Fossum (1967) 的市场份额法基于客户销售收入计算事务所行业份额。
<i>IMPOR</i>	客户的重要性水平，我们采用特定上市公司客户资产占会计师事务所所有上市公司客户资产的比例进行衡量。
<i>YEAR<sub>i</sub></i>	年度哑变量。
<i>REGION<sub>i</sub></i>	地区哑变量。
<i>INDUSTRY<sub>i</sub></i>	行业哑变量。

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## 四、样本选择及重述与差错性质的判定

### (一) 样本选择

对于模型1，我们以CSMAR中国上市公司财务报表数据库中列示的2004至2006年全部A股上市公司为初始样本。在初始样本的基础上，剔除金融类以及模型1中公司一般特征缺失的上市公司观察值，获得3661个上市公司样本。接下来，我们通过查找上市公司更正公告，手工搜集2004至2006年更正前期重大会计差错的上市公司，将其界定为财务重述样本；如果涉及到会计政策变动、估计变更、新准则的采用以及小的词汇错误或者排版上的错误都不认为是财务重述。

随后，我们重新在上市公司更正公告中搜集2005至2009年进行财务重述的公司，并依据其披露的重述信息查找差错发生期在2004至2006年的上市公司，将其界定为重大会计差错样本。在确认差错发生期时可能会遇到一些特殊的情况。对于在财务重述公告中没有具体披露会计差错涉及的会计期间，而仅仅披露某年及之前的财务报表存在会计差错的情形，我们将差错发生年度界定为离重述期最近的一期。例如，如果上市公司在2006年的财务重述公告中披露其在2004年及之前年度存在会计差错，那么我们将差错发生期界定为2004年。对于在财务重述公告中明确披露会计差错涉及之前几个会计年度的情形，我们将所涉及的会计年度均确认为差错发生期。

在收集重大会计差错样本时，我们发现，公司财务报表中存在的重大会计差错更多地是在随后一年被重述，而且重述期与差错期时间间隔越长，前期差错被重述的可能性越小。此外，由2009年重述公告查找到的2004至2006年存在重大会计差错的上市公司观察值分别仅有1个、4个和6个。根据以上的趋势，我们认为，极少有2004至2006年的重大会计差错是在2009年以后被重述的情况。因此，从这个意义上来说，我们以2005至2009年的财务重述公告搜集2004至2006年的重大会计差错样本



是较为有效的。当然，我们不排除有极少量2004至2006年的重大会计差错是在2009年以后被重述的情况，对此我们将在论文局限性部分进行说明。另外，我们还利用CSMAR中国上市公司违规处理研究数据库查找到一些独立数据，以验证我们数据搜集方法的有效性。通过检索该数据库，我们发现2004至2011年间，在监管部门的处罚公告中披露2004至2006年期间存在重大会计差错的上市公司观察值共有65个。通过核对，这些观察值均包含在我们的重大会计差错样本之中，这进一步说明了我们的数据搜集方法的有效性。

由此，在上述2004至2006年3661个样本观察值中确认了461个财务重述样本和410个重大会计差错样本。在此基础上，我们又剔除缺失公司治理特征的上市公司观察值，剩余3652个上市公司样本，其中包括460个财务重述样本和409个重大会计差错样本。最后，我们剔除缺失事务所特征的上市公司观察值，最终得到3599个上市公司样本，其中包含450个财务重述样本和404个重大会计差错样本。

对于模型2，我们同样以CSMAR中国上市公司财务报表数据库中列示的2004至2006年全部A股上市公司为初始样本。在初始样本的基础上，剔除金融类上市公司观察值以及模型2中缺失公司一般特征、公司治理特征和事务所特征的上市公司观察值，最终获得3828个样本。在3828个样本观察值中，我们又以上述方法确认了470个财务重述样本和420个重大会计差错样本。模型3的研究样本与模型2一致。

## (二) 财务重述与重大会计差错性质的判定

借鉴Graham *et al.* (2008)与Plumlee and Yohn (2010)的做法，我们通过分析更正公告中披露的财务重述信息，依据性质将财务重述区分为三类，即管理层的盈余操纵、公司内部控制缺陷和会计准则的不适应性。<sup>10</sup>

首先，如果财务重述公告中披露的内容表明前期差错是由管理层的盈余操纵行为造成的，那么我们将该类重述定性为管理层的盈余操纵。具体的判断的标准有如下几点：(1) 财务重述公告中存在“舞弊”、“虚构”等词语；(2) 证监会或税务机关对公司重述的前期差错进行了处罚；(3) 国资委、财政部、审计委员会、独立董事等独立第三方对重述的前期差错提出质疑，或进行专项检查；(4) 存在任何新闻报道表明重述的前期差错与盈余操纵有关。凡符合以上任意一条标准，我们都将其归入此类。其次，如果财务重述公告中披露的内容表明前期差错是由于漏记、错记会计记录或者只是简单的误用会计准则及员工自利行为造成的，那么我们将该重述定性为公司的内部控制缺陷。这些差错是管理层非故意的，而且并不归因于任何复杂的经济业务和会计准则特征。最后，如果财务重述公告中披露的内容表明前期差错是由于经济业务复杂性而导致会计核算产生错误，或者是由于会计准则自身的模糊性

<sup>10</sup> Plumlee and Yohn (2010)将财务重述的性质划分为四类，即管理层的盈余操纵、内部控制缺陷、业务的复杂性和会计准则的模糊性。我们在其基础上将业务复杂性和会计准则模糊性合并为会计准则的不适应性，因为这些财务重述都是由于会计准则与会计实务不相适应导致的。

影响上市公司不恰当应用会计准则，那么我们将该类重述定性为会计准则的不适应性。<sup>11</sup>

每一项财务重述都是由作者和两位本土会计师事务所执业注册会计师单独分析。三者之间对财务重述性质任何不同的理解都经过进一步的讨论，并最终达成一致的意见。会计准则不适应引发的财务重述与公司自身的关系不大，更多的是表明相关的会计准则和会计制度尚不清晰和完善。而内部控制缺陷引发的财务重述则表明公司管理能力欠缺。管理层盈余操纵引发的财务重述更是表明公司品质存在问题。因此，从会计准则的不适应性到公司内部控制缺陷，再到管理层的盈余操纵，财务重述的性质越来越严重。

同样的，重大会计差错的性质也可以区分为这三个类别，判断依据与财务重述性质的标准一致，所不同的是判断的期间不同，财务重述性质的判断期间是重述当期，或者称为前期差错更正期，而重大会计差错性质的判断期间是差错发生当期。

## 五、描述性统计与实证结果

### (一) 描述性统计

表2为模型1、模型2和模型3相关变量的描述性统计结果。由表2可知，在非财务重述样本中，*MISSTATE*与*OPIN*的均值都为0.09，而在财务重述样本中*MISSTATE*与*OPIN*的均值则分别为0.24和0.25。这说明在不考虑其他影响因素的情况下，重述公司财务报表中存在重大错报的可能性更大，而且审计师更倾向于对该类公司出具严厉的审计意见。另外，财务重述公司操控性应计利润(*DA*)也高于非财务重述公司。

在公司一般特征上，由表2可知，相对于非财务重述公司，财务重述公司在前期更可能被出具非标准审计意见(*PREOPIN*)，公司规模(*LNASSET*)较小，资产负债率(*LEVERAGE*)和应收账款占总资产的比例(*REVRATIO*)较高，资产收益率(*ROA*)较低，前一年更可能发生亏损(*LOSS*)，公司上市年限(*AGE*)较长，发生兼并重组(*MERGER*)的可能性较大，融资(*FINANCING*)的可能性较小，纳入合并范围的子公司个数(*AFFILIATE*)较多，公司的销售收入的增长速度(*SALE\_GROWTH*)较慢。

<sup>11</sup> 对于财务重述公告中披露的内容表明前期存在多项重大会计差错，且导致会计差错产生的原因不尽相同的情况，我们以性质最为严重的前期差错确定其性质。由于该类重述所占的比例非常低，仅占模型1-4和模型1-5财务重述样本的2.2%，模型2-2和模型3-2财务重述样本的2.5%，而且市场更可能关注性质最为严重的重述事项所蕴含的信息风险。因此，我们采用这种确认方法不会对研究结果产生显著影响。另外，对于该类重述，我们又采用前期差错对前期净收益的影响区分其性质，即以对前期净收益影响最大的前期差错确定财务重述的性质，进而验证实证结果的稳健性。基于前期差错对净收益的影响区分财务重述的性质后，我们重新检验了财务重述性质与重大会计差错的关系，以及控制信息前后财务重述性质与审计意见的关系，模型1-4、1-5、2-2和3-2的研究结果并没有发生显著的变化。这进一步说明我们的研究结果是稳健的，足以支持本文的研究结论。

表2 变量描述性统计结果

变量	RESTATE=1			RESTATE=0			差异检验	
	均值	中位数	标准差	均值	中位数	标准差	均值	中位数
<i>MISSTATE</i>	0.24	0.00	0.43	0.09	0.00	0.29	6.91***	9.02***
<i>OPIN</i>	0.25	0.00	0.43	0.09	0.00	0.28	7.84***	10.53***
<i>DA</i>	0.00	0.01	0.14	0.00	0.01	0.15	1.74**	2.55**
<i>PREOPIN</i>	0.19	0.00	0.40	0.08	0.00	0.27	6.25***	8.26***
<i>LNASSET</i>	21.19	21.15	0.96	21.28	21.21	1.00	-1.72**	-1.24
<i>LEVERAGE</i>	0.68	0.62	0.40	0.53	0.52	0.27	7.63***	9.22***
<i>ROA</i>	-0.02	0.01	0.12	0.01	0.03	0.10	-6.38***	-9.73***
<i>REVRATIO</i>	0.18	0.14	0.13	0.14	0.11	0.11	6.62***	6.94***
<i>STORATIO</i>	0.16	0.13	0.13	0.16	0.13	0.14	-0.76	-0.48
<i>LOSS</i>	0.25	0.00	0.43	0.12	0.00	0.33	6.13***	7.53***
<i>AGE</i>	2.93	3.00	0.56	2.79	2.83	0.64	4.75***	4.20***
<i>MERGER</i>	0.64	1.00	0.48	0.60	1.00	0.49	1.75**	1.72*
<i>FINANCING</i>	0.12	0.00	0.33	0.16	0.00	0.37	-2.53***	-2.31**
<i>AFFILIATE</i>	2.51	2.45	1.34	2.41	2.24	1.38	1.46*	2.22**
<i>SEGMENT</i>	1.89	2.00	0.53	1.89	1.73	0.54	0.14	0.37
<i>SALE_GROWTH</i>	0.12	0.09	0.50	0.22	0.16	0.49	-3.67***	-5.28***
<i>OWNERSHIP</i>	0.70	1.00	0.46	0.68	1.00	0.46	0.5	0.49
<i>BOARD_SIZE</i>	6.45	6.00	1.63	6.28	6.00	1.52	2.10**	1.96**
<i>BOARD_CONFER</i>	8.10	7.00	3.22	7.62	7.00	2.96	3.03***	3.25***
<i>CHAIR_CEO</i>	2.78	3.00	0.60	2.78	3.00	0.60	-0.09	-0.29
<i>BOARD_INDEP</i>	0.52	0.50	0.10	0.53	0.50	0.10	-3.05***	-2.16**
<i>MSHARE</i>	0.00	0.00	0.00	0.01	0.00	0.06	-10.10***	-0.6
<i>BOARD_AUDIT</i>	0.52	1.00	0.50	0.51	1.00	0.50	0.56	0.56
<i>FOREIGN</i>	0.06	0.00	0.24	0.07	0.00	0.26	-0.85	-0.81
<i>BIG4</i>	0.01	0.00	0.10	0.07	0.00	0.26	-9.13***	-4.97***
<i>SPECIALIST</i>	0.00	0.00	0.07	0.03	0.00	0.18	-6.28***	-3.31***
<i>IMPOR</i>	0.05	0.04	0.05	0.05	0.04	0.05	0.12	0.25

注：变量定义见表1。表2中涉及模型1中的变量，其总体样本为3599个上市公司观察值，其中财务重述样本450个；其他涉及模型2和模型3而不在模型1中的变量，其总体样本为3828个上市公司观察值，其中财务重述样本470个。由于篇幅所限，表2中没有列示出年度变量、地区变量和行业变量。

在公司治理特征上，与非财务重述公司相比，财务重述公司董事会规模(*BOARD\_SIZE*)较大，召开董事会会议的次数(*BOARD\_CONFER*)较多，董事会中独立董事的比例(*BOARD\_INDEP*)以及高管持股比例(*MSHARE*)较低。在事务所特征上，财务重述公司更可能由非“四大”(*BIG4*)会计师事务所审计，而且审计财务重述公司的会计师事务所其行业专门化水平(*SPECIALIST*)较低。此外，不同性质财务重述公司在部分公司一般特征、公司治理特征和所聘任的事务所特征上也存在一定的差异，由于篇幅所限我们没有列示出不同性质财务重述公司相关变量的描述性统计结果。

## (二) 模型回归结果

首先,我们考察财务重述与重大会计差错的关系,其Logit回归检验结果列示于表3。由表3模型1-1的回归结果可知,在控制了公司一般特征后,*RESTATE*与*MISSTATE*显著正相关( $P<0.01$ )。在表3模型1-2和1-3中,我们又逐步控制公司治理特征和事务所特征的影响,结果发现*RESTATE*的系数仍然在1%的水平上显著大于0。这说明与非财务重述公司相比,重述公司财务报表中更可能存在重大会计差错,支持假设1a。

表3 财务重述与重大会计差错: Logit回归结果

变量	模型 1-1		模型 1-2		模型 1-3	
	系数	Z值	系数	Z值	系数	Z值
Intercept	-3.61***	-2.50	-3.05**	-2.00	-4.26***	-2.69
<i>RESTATE</i>	0.84***	6.29	0.81***	6.04	0.77***	5.70
<i>LNASSET</i>	0.01	0.11	-0.05	-0.70	0.01	0.08
<i>LEVERAGE</i>	0.41**	2.10	0.40**	2.02	0.40**	2.01
<i>ROA</i>	-1.06*	-1.81	-1.16**	-1.96	-1.19**	-1.99
<i>REVRATIO</i>	0.01	0.02	0.06	0.12	0.04	0.08
<i>STORATIO</i>	0.50	1.05	0.53	1.11	0.46	0.96
<i>LOSS</i>	0.34**	2.13	0.35**	2.20	0.36**	2.25
<i>AGE</i>	0.28***	2.66	0.26**	2.39	0.26**	2.37
<i>MERGER</i>	0.15	1.10	0.19	1.36	0.17	1.25
<i>FINANCING</i>	0.16	0.86	0.19	1.01	0.16	0.86
<i>AFFILIATE</i>	0.02	0.46	0.04	0.81	0.05	1.01
<i>SEGMENT</i>	0.16	1.48	0.16	1.52	0.13	1.23
<i>SALE_GROWTH</i>	-0.13	-1.05	-0.12	-0.99	-0.12	-0.96
<i>OWNERSHIP</i>			0.05	0.38	0.05	0.42
<i>BOARD_SIZE</i>			0.11***	2.94	0.12***	3.09
<i>BOARD_CONFER</i>			-0.03	-1.49	-0.03	-1.54
<i>CHAIR_CEO</i>			0.04	0.40	0.04	0.41
<i>BOARD_INDEP</i>			-0.17	-0.27	-0.09	-0.14
<i>MSHARE</i>			-3.07	-1.31	-3.02	-1.30
<i>BOARD_AUDIT</i>			0.15	1.31	0.16	1.47
<i>BIG4</i>					-0.94***	-2.47
<i>SPECIALIST</i>					-1.01*	-1.66
<i>IMPOR</i>					0.91	0.93
N	3661		3652		3599	
Pseudo R <sup>2</sup>	0.14		0.14		0.16	

注: 变量定义见表1, \*\*\*表示在1%的水平上显著, \*\*表示在5%的水平上显著, \*表示在10%的水平上显著。表3中模型1-1至1-3的因变量均为*MISSTATE*。由于篇幅所限, 表3中没有列出年度变量、地区变量和行业变量的回归结果。

随后，我们依据性质对财务重述所蕴含的重述当期信息风险做进一步的分类研究，相关的实证结果列示于表4。由表4模型1-4的回归结果可知，*RESTATE\_ORDER*与*MISSTATE*在1%的水平上正相关。在表4模型1-5中，我们又按性质对重大会计差错进行分类；结果发现，*RESTATE\_ORDER*与*MISSTATE\_ORDER*同样在1%的水平上显著正相关。这说明，财务重述的性质越严重，公司财务报表中发生重大错报的可能性越大，重大错报的性质也越严重，支持假设1b。

表4 财务重述性质与重大会计差错: Logit和Ologit回归结果

变量	模型1-4		模型1-5	
	系数	Z值	系数	Z值
Intercept	-4.34***	-2.74		
<i>RESTATE_ORDER</i>	0.34***	5.47	0.34***	5.56
<i>LNASSET</i>	0.01	0.16	0.02	0.25
<i>LEVERAGE</i>	0.42**	2.11	0.40**	2.04
<i>ROA</i>	-1.16**	-1.94	-1.08*	-1.81
<i>REVRATIO</i>	0.04	0.07	0.17	0.33
<i>STORATIO</i>	0.43	0.90	0.46	0.96
<i>LOSS</i>	0.36**	2.25	0.36**	2.31
<i>AGE</i>	0.25**	2.31	0.27**	2.46
<i>MERGER</i>	0.18	1.31	0.18	1.32
<i>FINANCING</i>	0.17	0.88	0.16	0.87
<i>AFFILIATE</i>	0.05	0.99	0.04	0.83
<i>SEGMENT</i>	0.12	1.13	0.14	1.27
<i>SALE_GROWTH</i>	-0.12	-0.98	-0.11	-0.91
<i>OWNERSHIP</i>	0.05	0.41	0.06	0.45
<i>BOARD_SIZE</i>	0.12***	3.09	0.12***	3.15
<i>BOARD_CONFER</i>	-0.03	-1.49	-0.03*	-1.64
<i>CHAIR_CEO</i>	0.04	0.41	0.04	0.39
<i>BOARD_INDEP</i>	-0.09	-0.15	-0.21	-0.35
<i>MSHARE</i>	-3.10	-1.33	-3.06	-1.31
<i>BOARD_AUDIT</i>	0.17	1.49	0.17	1.51
<i>BIG4</i>	-0.95***	-2.50	-0.94***	-2.47
<i>SPECIALIST</i>	-1.02*	-1.68	-1.03*	-1.70
<i>IMPOR</i>	0.94	0.97	1.01	1.05
N		3599		3599
Pseudo R <sup>2</sup>		0.16		0.12

注：变量定义见表1，\*\*\*表示在1%的水平上显著，\*\*表示在5%的水平上显著，\*表示在10%的水平上显著。表4中模型1-4的因变量为*MISSTATE*。表4中模型1-5的因变量为*MISSTATE\_ORDER*。由于篇幅所限，表4中没有列示出年度变量、地区变量和行业变量的回归结果。



接下来,我们考察财务重述与审计意见的关系,其Logit实证检验结果列示于表5。由表5模型2-1可以看出, *RESTATE*与*OPIN*显著正相关( $P < 0.01$ )。这说明,审计师更倾向于对财务重述公司出具严厉审计意见,该结果支持假设2a。当我们依据财务重述的性质将其进一步分类时,表5模型2-2的回归结果显示, *RESTATE\_ORDER*与*OPIN*在1%的水平上显著正相关。这说明,财务重述的性质越严重,则审计师出具严厉审计意见的可能性越大,该结果支持假设2b。

表5 财务重述与审计意见:Logit回归结果

变量	模型 2-1		模型 2-2	
	系数	Z 值	系数	Z 值
Intercept	-0.38	-0.19	-0.36	-0.18
<i>RESTATE</i>	0.71***	3.97		
<i>RESTATE_ORDER</i>			0.36***	4.55
<i>PREOPIN</i>	2.49***	13.36	2.50***	13.39
<i>LNASSET</i>	-0.22***	-2.51	-0.22***	-2.52
<i>LEVERAGE</i>	3.25***	9.69	3.24***	9.66
<i>ROA</i>	-0.80***	-6.44	-0.82***	-6.56
<i>AR_IN</i>	0.34	0.75	0.32	0.69
<i>LOSS</i>	0.39**	2.01	0.37**	1.94
<i>AGE</i>	0.12	0.84	0.11	0.77
<i>SALE_GROWTH</i>	-0.88***	-5.41	-0.87***	-5.39
<i>OWNERSHIP</i>	-0.47***	-3.01	-0.47***	-3.03
<i>BOARD_SIZE</i>	0.02	0.29	0.01	0.27
<i>BOARD_CONFER</i>	-0.01	-0.38	-0.01	-0.33
<i>CHAIR_CEO</i>	-0.12	-1.08	-0.12	-1.10
<i>BOARD_INDEP</i>	0.07	0.09	0.10	0.13
<i>MSHARE</i>	-1.20	-0.54	-1.23	-0.55
<i>BOARD_AUDIT</i>	-0.04	-0.25	-0.04	-0.25
<i>FOREIGN</i>	0.41	1.60	0.40	1.54
<i>BIG4</i>	0.87***	2.78	0.88***	2.82
<i>SPECIALIST</i>	-0.45	-0.80	-0.45	-0.79
<i>IMPOR</i>	-1.60	-0.84	-1.52	-0.80
N	3828		3828	
Pseudo R <sup>2</sup>	0.46		0.46	

注:变量定义见表1,\*\*\*表示在1%的水平上显著,\*\*表示在5%的水平上显著,\*表示在10%的水平上显著。表5中模型2-1和2-2的因变量均为*OPIN*。由于篇幅所限,表5中没有列出年度变量、地区变量和行业变量的回归结果。

最后，我们考察在控制了样本公司信息风险后财务重述与审计意见的关系，Logit实证检验结果列示于表6。在表6模型3-1中，我们以*MISSTATE*与*DA*控制样本本公司的信息风险，结果发现*RESTATE*的系数在1%的水平上显著大于0。这说明，控制了公司的信息风险后，审计师仍然更倾向于对财务重述公司出具严厉的审计意见，不支持假设3a。在表6模型3-2中，我们以*MISSTATE\_ORDER*与*DA*控制样本本公司的信息风险，结果发现*RESTATE\_ORDER*的系数在1%的水平上显著大于0。这说明，控制了公司的信息风险后，审计师仍然更倾向于对性质严重的财务重述公司出具严厉的审计意见，不支持假设3b。

**表6** 财务重述与审计意见：控制信息风险后的Logit回归结果

变量	模型 3-1		模型 3-2	
	系数	Z 值	系数	Z 值
Intercept	-0.72	-0.36	-0.71	-0.36
<i>RESTATE</i>	0.63***	3.46		
<i>RESTATE_ORDER</i>			0.33***	4.04
<i>MISSTATE</i>	0.66***	3.47		
<i>MISSTATE_ORDER</i>			0.32***	3.86
<i>DA</i>	1.41*	1.74	1.39*	1.71
<i>PREOPIN</i>	2.51***	13.42	2.53***	13.49
<i>LNASSET</i>	-0.21**	-2.36	-0.21**	-2.37
<i>LEVERAGE</i>	3.12***	9.11	3.12***	9.11
<i>ROA</i>	-0.79***	-6.28	-0.80***	-6.39
<i>AR_IN</i>	0.37	0.79	0.31	0.68
<i>LOSS</i>	0.34*	1.79	0.33*	1.71
<i>AGE</i>	0.11	0.77	0.10	0.67
<i>SALE_GROWTH</i>	-0.85***	-5.30	-0.84***	-5.24
<i>OWNERSHIP</i>	-0.47***	-3.00	-0.48***	-3.04
<i>BOARD_SIZE</i>	0.00	0.06	0.00	-0.02
<i>BOARD_CONFER</i>	0.00	-0.19	0.00	-0.09
<i>CHAIR_CEO</i>	-0.11	-1.01	-0.11	-1.00
<i>BOARD_INDEP</i>	0.08	0.10	0.13	0.17
<i>MSHARE</i>	-1.02	-0.46	-1.07	-0.48
<i>BOARD_AUDIT</i>	-0.03	-0.22	-0.04	-0.26
<i>FOREIGN</i>	0.43*	1.64	0.41	1.54
<i>BIG4</i>	0.90**	2.82	0.91***	2.89
<i>SPECIALIST</i>	-0.38	-0.68	-0.37	-0.65
<i>IMPOR</i>	-1.72	-0.90	-1.71	-0.89
N	3828		3828	
Pseudo R <sup>2</sup>	0.47		0.47	

注：变量定义见表1，\*\*\*表示在1%的水平上显著，\*\*表示在5%的水平上显著，\*表示在10%的水平上显著。表6中模型3-1和3-2的因变量均为*OPIN*。由于篇幅所限，表6中没有列示出年度变量、地区变量和行业变量的回归结果。

模型1控制变量方面,由表3和表4可知,公司资产负债率越高(*LEVERAGE*),资产收益率(*ROA*)越低,前一年发生亏损的可能性(*LOSS*)越大,上市年限(*AGE*)越长,董事会规模(*BOARD\_SIZE*)越大,越倾向于聘用非“四大”和非行业专家审计,则公司财务报表中存在重大会计差错的可能性越大。模型2与模型3控制变量方面,由表5和表6可知,公司前期被出具非标准审计意见(*PREOPIN*)和出现亏损(*LOSS*)的可能性越大,资产负债率(*LEVERAGE*)越高,越倾向于聘用“四大”会计师事务所审计,则审计师越倾向于对其出具严厉审计意见。而公司规模(*LNASSET*)越大,资产收益率(*ROA*)和销售收入增长率(*SALE\_GROWTH*)越高,越是由国有控股(*OWNERSHIP*),则审计师对其出具严厉审计意见的可能性越小。模型1至模型3控制变量的实证结果与我们的预期基本一致,而其他控制变量不具有统计显著性。

## 六、稳健性检验

### (一) 财务重述的内生性问题

由描述性统计结果可知,财务重述公司在一些公司一般特征、公司治理特征和事务所特征方面与非财务重述公司存在显著差异,同时不同性质财务重述公司在部分公司一般特征、公司治理特征和所聘任的事务所特征上也存在一定的差异。在检验财务重述所蕴含的重述当期信息风险时,为了控制财务重述可能存在的内生性问题,我们采用了Heckman两阶段回归模型。

首先,我们构建一阶段财务重述(*RESTATE*)模型和财务重述性质(*RESTATE\_ORDER*)模型,两个模型中包含重大会计差错模型中所有的变量和两个工具变量。Lennox, Francis, and Wang (2012)建议,研究者在构建Selection Models时应审慎选择工具变量,所选择的工具变量必须与第一阶段的因变量高度相关,而与随机误差项不相关。我们所选择的第一个工具变量是重述前一年期间总经理或董事长是否发生变更(*IV1*),如果发生变更取值为1,否则为0。第二个工具变量是重述前一年期间事务所是否发生变更(*IV2*),如果发生变更取值为1,否则为0;此处所指的事务所变更既包含自愿性变更,又包含强制性变更和其它原因导致的非自愿变更。新任的总经理或董事长以及新聘任的事务所对于前期的财务报告将更为独立,由此更可能发现并更正前期财务报告中存在的重大会计差错,而且财务重述的性质越严重,新任的总经理或董事长以及新聘任的事务所发现并更正前期重大会计差错的可能性也越大。一阶段财务重述模型与财务重述性质模型的回归结果也表明,这两个工具变量与财务重述(*RESTATE*)分别在5%和1%的水平上显著正相关,同时与财务重述性质(*RESTATE\_ORDER*)也分别在5%和1%的水平上显著正相关。而且这两个工具变量与包含所有外生变量的重大会计差错模型的回归残差不存在显著的相关关系。由此,基于这些工具变量的Heckman两阶段回归模型是相对可靠的。

接下来,我们将在第一阶段财务重述模型回归分析中获得的IMR (Inverse Mills Ratio)纳入第二阶段重大会计差错模型1-1至1-3,将第一阶段财务重述性质模型回归分析中计算获得的IMR (Inverse Mills Ratio)纳入第二阶段重大会计差错模型1-4和1-5。第二阶段的回归结果列示于表7。由表7可知,两阶段回归结果并没有发生显著的变化,依然支持假设1a和1b。

表7 财务重述与重大会计差错: Heckman两阶段回归结果

变量	模型 1-1		模型 1-2		模型 1-3		模型 1-4		模型 1-5	
	系数	Z值	系数	Z值	系数	Z值	系数	Z值	系数	Z值
Intercept	-3.39**	-2.32	-2.91*	-1.89	-4.20***	-2.62	-4.50***	-2.83		
RESTATE	1.28***	2.88	1.12**	2.39	0.88*	1.83				
RESTATE_ORDER							0.22*	1.75	0.25**	2.16
LNASSET	0.00	0.01	-0.05	-0.74	0.00	0.06	0.02	0.24	0.02	0.33
LEVERAGE	0.32	1.52	0.33	1.55	0.37*	1.72	0.46**	2.27	0.43**	2.13
ROA	-1.13*	-1.91	-1.21**	-2.03	-1.21**	-2.00	-1.12*	-1.88	-1.06*	-1.77
REVRATIO	-0.14	-0.26	-0.04	-0.07	0.00	0.01	0.13	0.24	0.24	0.45
STORATIO	0.51	1.07	0.54	1.12	0.46	0.96	0.47	0.98	0.50	1.04
LOSS	0.30*	1.80	0.32**	1.95	0.35**	2.11	0.39**	2.40	0.39**	2.41
AGE	0.27***	2.58	0.25**	2.33	0.26**	2.35	0.26**	2.38	0.27***	2.51
MERGER	0.15	1.07	0.19	1.36	0.17	1.25	0.18	1.30	0.18	1.34
FINANCING	0.16	0.86	0.19	1.01	0.16	0.87	0.16	0.86	0.16	0.85
AFFILIATE	0.02	0.37	0.04	0.75	0.05	0.98	0.05	1.02	0.04	0.84
SEGMENT	0.16	1.49	0.16	1.53	0.13	1.24	0.12	1.14	0.14	1.27
SALE_GROWTH	-0.11	-0.88	-0.11	-0.86	-0.11	-0.91	-0.13	-1.07	-0.12	-0.97
OWNERSHIP			0.04	0.32	0.05	0.40	0.05	0.41	0.06	0.43
BOARD_SIZE			0.11***	2.87	0.12***	3.05	0.12***	3.14	0.12***	3.18
BOARD_CONFER			-0.03	-1.58	-0.03	-1.55	-0.03	-1.39	-0.03	-1.57
CHAIR_CEO			0.04	0.39	0.04	0.41	0.04	0.45	0.04	0.42
BOARD_INDEP			-0.11	-0.18	-0.07	-0.11	-0.15	-0.24	-0.26	-0.42
MSHARE			-3.13	-1.33	-3.04	-1.31	-3.00	-1.29	-2.98	-1.27
BOARD_AUDIT			0.14	1.29	0.16	1.45	0.17	1.49	0.17	1.51
BIG4					-0.93**	-2.44	-0.96***	-2.53	-0.94***	-2.48
SPECIALIST					-0.99*	-1.64	-1.03*	-1.70	-1.04*	-1.72
IMPOR					0.92	0.94	-0.08	-0.05	0.04	0.03
IMR	-0.21	-1.05	-0.14	-0.69	-0.05	-0.25	0.13	0.89	0.09	0.63
<i>VIF</i>										
RESTATE		6.98		7.41		7.53				
RESTATE_ORDER								6.13		6.13
IMR		6.61		6.99		7.07		5.76		5.76
N		3661		3652		3599		3599		3599
Pseudo R <sup>2</sup>		0.14		0.14		0.16		0.16		0.12

注: 变量定义见表1, \*\*\*表示在1%的水平上显著, \*\*表示在5%的水平上显著, \*表示在10%的水平上显著。表7中模型1-1至1-4的因变量均为 *MISSTATE*。表7中模型1-5的因变量为 *MISSTATE\_ORDER*。由于篇幅所限, 表7中没有列示出年度变量、地区变量和行业变量的回归结果。

由于Selection Models的结果对模型的具体形式是很敏感的，Lennox, Francis, and Wang (2012) 建议，研究者应改变模型的具体形式，以检验研究结果的稳健性。由此，我们在一阶段财务重述模型和财务重述性质模型中仅包含重大会计差错模型中的公司一般特征变量和两个工具变量，两阶段实证结果表明，模型形式的变化没有影响本文的实证结果。另外，我们在一阶段财务重述模型和财务重述性质模型中仅包含重大会计差错模型中的公司一般特征变量、公司治理特征和两个工具变量，两阶段实证结果表明，模型形式的变化仍然没有影响本文的实证结果。因此，本文的实证结果不会受到模型具体形式的显著影响。

由于Selection Models的结果容易受到多重共线性的影响，Lennox, Francis, and Wang (2012) 建议，研究者应在论文中报告多重共线性的诊断结果。由此，我们在表7中报告了模型1-1至1-5中RESTATE、RESTATE\_ORDER和IMR的方差膨胀因子(Variance Inflation Factor, VIF)。结果发现，模型1-1至1-5中RESTATE、RESTATE\_ORDER和IMR的方差膨胀因子均小于10。这说明我们构建的Selection Models中并不存在严重的多重共线性问题。

基于以上的分析，总体而言，我们所构建的Selection Models是相对有效的，同时也进一步表明本文的实证结果是稳健的。由于IMR的系数在统计意义上并不显著，这说明财务重述可能不存在明显的内生性问题。

## (二) 信息风险的度量

在检验财务重述所蕴含的重述当期信息风险时，我们主要采用重大会计差错衡量公司的信息风险。而在检验审计师对财务重述所蕴含的重述当期信息风险的认知时，我们又加入带符号的操控性应计利润进一步控制样本公司的信息风险。那么，财务重述公司是否具有较高的操纵性利润呢？对于这一问题的解答将有利于我们进一步理解财务重述所蕴含的重述当期信息风险。由此，我们在Francis and Wang (2008) 的基础上构建如下模型，以进一步考察财务重述所蕴含的重述当期信息风险。

$$\begin{aligned}
 DA = & \beta_0 + \beta_1 RESTATE/RESTATE\_ORDER + \beta_2 LNSALE + \beta_3 CFO \\
 & + \beta_4 LEVERAGE + \beta_5 LOSS + \beta_6 SALE\_GROWTH \\
 & + \beta_7 PPE\_GROWTH + \beta_8 OWNERSHIP + \beta_9 BOARD\_SIZE \\
 & + \beta_{10} BOARD\_CONFER + \beta_{11} CHAIR\_CEO + \beta_{12} BOARD\_INDEP \\
 & + \beta_{13} MSHARE + \beta_{14} BOARD\_AUDIT + \beta_{15} BIG4 + \beta_{16} SPECIALIST \\
 & + \beta_{17} IMPOR + \beta_{18} YEAR_{2004} + \beta_{19} YEAR_{2005} + i \sum_{i=1}^4 REGION_i \\
 & + \beta_{23} + j \sum_{j=1}^{11} INDUSTRY_j + \varepsilon
 \end{aligned} \tag{4}$$

其中， $DA$ 为因变量，表示带符号的操控性应计利润，计算方法与模型3中的一致。 $RESTATE$ 与 $RESTATE\_ORDER$ 为检验变量，其定义与模型1中的一致。另外，模型中还包含一系列控制变量。 $LNSALE$ 为公司当年销售收入的自然对数； $CFO$ 为



公司当年的经营现金流量，其值为当年经营现金流量除以上年末的总资产；*PPE\_GROWTH*为固定资产增长率，等于公司当年的固定资产净值相对于上一年度的增长率；其他控制变量与模型1中一致，在此不再累述。

表8 财务重述与操控性应计利润：OLS回归结果

变量	模型 4-1		模型 4-2		模型 4-3	
	系数	T值	系数	T值	系数	T值
Intercept	0.239***	7.41	0.252***	7.00	0.273***	7.33
<i>RESTATE</i>	0.082***	4.47	0.075***	3.96	0.071***	3.73
<i>LNSALE</i>	-0.010***	-6.57	-0.010***	-5.88	-0.011***	-6.19
<i>CFO</i>	-0.266***	-7.87	-0.266***	-7.86	-0.267***	-7.87
<i>LEVERAGE</i>	0.106***	12.62	0.105***	12.42	0.105***	12.43
<i>LOSS</i>	0.011*	1.76	0.011*	1.71	0.010	1.59
<i>SALE_GROWTH</i>	0.003	0.81	0.003	0.79	0.004	0.93
<i>PPE_GROWTH</i>	0.001	0.37	0.001	0.38	0.001	0.41
<i>OWNERSHIP</i>			0.002	0.45	0.002	0.42
<i>BOARD_SIZE</i>			-0.002	-1.60	-0.002*	-1.72
<i>BOARD_CONFER</i>			0.000	-0.42	0.000	-0.46
<i>CHAIR_CEO</i>			-0.003	-0.89	-0.003	-0.90
<i>BOARD_INDEP</i>			0.003	0.15	0.001	0.07
<i>MSHARE</i>			0.015	0.40	0.015	0.40
<i>BOARD_AUDIT</i>			-0.007*	-1.81	-0.007*	-1.90
<i>BIG4</i>					-0.017**	-2.15
<i>SPECIALIST</i>					0.004	0.31
<i>IMPOR</i>					-0.024	-0.63
N	3898		3889		3828	
Adjusted R <sup>2</sup>	0.21		0.21		0.21	

注：变量定义见表1，\*\*\*表示在1%的水平上显著，\*\*表示在5%的水平上显著，\*表示在10%的水平上显著。表8中模型4-1至4-3的因变量均为*DA*。由于篇幅所限，表8中没有列出年度变量、地区变量和行业变量的回归结果。

财务重述与操控性应计利润的OLS回归结果列示于表8。由表8可知，*RESTATE*的系数在1%的水平上显著大于0。这说明，财务重述公司具有较高的操控性应计利润，蕴含着较大的信息风险。在此基础上，我们依据性质对财务重述进行分类研究，结果列示于表9。由表9可知，*RESTATE\_ORDER*的系数在5%的水平上显著大于0。这说明财务重述的性质越严重，公司操控性应计利润越高，所蕴含的信息风险也越大。这些研究结果进一步支持了假设1a和1b。

表9 财务重述性质与操控性应计利润：OLS回归结果

变量	模型 4-4		模型 4-5		模型 4-6	
	系数	T值	系数	T值	系数	T值
Intercept	0.245***	7.57	0.255***	7.08	0.279***	7.47
RESTATE_ORDER	0.015***	2.54	0.013**	2.17	0.012**	2.03
LNSALE	-0.010***	-6.69	-0.010***	-5.88	-0.011***	-6.27
CFO	-0.265***	-7.83	-0.266***	-7.84	-0.267***	-7.86
LEVERAGE	0.098***	12.05	0.098***	11.94	0.098***	12.01
LOSS	0.007	1.17	0.007	1.17	0.007	1.07
SALE_GROWTH	0.005	1.20	0.005	1.15	0.005	1.28
PPE_GROWTH	0.002	0.46	0.002	0.46	0.002	0.49
OWNERSHIP			0.001	0.31	0.001	0.29
BOARD_SIZE			-0.002***	-1.76	-0.003*	-1.90
BOARD_CONFER			-0.001	-0.82	-0.001	-0.85
CHAIR_CEO			-0.003	-0.92	-0.003	-0.92
BOARD_INDEP			0.009	0.44	0.007	0.33
MSHARE			0.015	0.40	0.015	0.41
BOARD_AUDIT			-0.007*	-1.91	-0.007**	-2.00
BIG4					-0.019**	-2.34
SPECIALIST					0.005	0.47
IMPOR					-0.022	-0.57
N	3898		3889		3828	
Adjusted R <sup>2</sup>	0.20		0.21		0.21	

注：变量定义见表1，\*\*\*表示在1%的水平上显著，\*\*表示在5%的水平上显著，\*表示在10%的水平上显著。表9中模型4-4至4-6的因变量均为DA。由于篇幅所限，表9中没有列示出年度变量、地区变量和行业变量的回归结果。

### (三) 审计意见的多项分类

在前述研究中，我们仅对审计意见进行二项分类，而没有考虑非标准审计意见之间严厉程度的差异。在此，我们进一步将审计意见的类型进行有序多项分类(OPIN\_ORDER)，以验证和扩展本文提出的假设。在具体定义上，审计师出具标准无保留审计意见OPIN\_ORDER取值为0，带强调事项段的无保留意见取值为1，保留意见取值为2，带强调事项段或解释性说明的保留意见取值为3，无法表示意见或否定意见取值为4。

表 10 财务重述与审计意见：Ologit 回归结果

变量	模型 2-1		模型 2-2		模型 3-1		模型 3-2	
	系数	Z 值	系数	Z 值	系数	Z 值	系数	Z 值
<i>RESTATE</i>	0.60***	3.88			0.52***	3.34		
<i>RESTATE_ORDER</i>			0.32***	4.60			0.28***	3.99
<i>MISSTATE</i>					0.68***	4.10		
<i>MISSTATE_ORDER</i>							0.33***	4.53
<i>DA</i>					2.15***	3.30	2.16***	3.34
<i>PREOPIN</i>	2.16***	13.19	2.16***	13.16	2.20***	13.40	2.20***	13.41
<i>LNASSET</i>	-0.10	-1.28	-0.10	-1.30	-0.09	-1.11	-0.08	-1.08
<i>LEVERAGE</i>	1.66***	10.49	1.67***	10.51	1.50***	9.27	1.50***	9.30
<i>ROA</i>	-0.43***	-4.65	-0.44***	-4.81	-0.46***	-4.95	-0.47***	-5.06
<i>AR_IN</i>	0.89**	2.34	0.86**	2.26	0.91**	2.37	0.88**	2.29
<i>LOSS</i>	0.58***	3.57	0.58***	3.57	0.51***	3.12	0.52***	3.20
<i>AGE</i>	0.06	0.49	0.05	0.39	0.06	0.43	0.04	0.28
<i>SALE_GROWTH</i>	-1.09***	-7.01	-1.09***	-7.00	-1.03***	-6.73	-1.04***	-6.77
<i>OWNERSHIP</i>	-0.49***	-3.61	-0.50***	-3.65	-0.49***	-3.60	-0.50***	-3.64
<i>BOARD_SIZE</i>	-0.02	-0.34	-0.02	-0.35	-0.02	-0.51	-0.03	-0.59
<i>BOARD_CONFER</i>	0.01	0.40	0.01	0.40	0.01	0.57	0.01	0.62
<i>CHAIR_CEO</i>	-0.11	-1.13	-0.11	-1.11	-0.08	-0.83	-0.07	-0.76
<i>BOARD_INDEP</i>	0.30	0.43	0.34	0.49	0.28	0.41	0.35	0.51
<i>MSHARE</i>	-1.86	-0.85	-1.90	-0.87	-1.65	-0.76	-1.70	-0.78
<i>BOARD_AUDIT</i>	0.00	-0.01	0.00	-0.04	0.00	0.02	0.00	0.00
<i>FOREIGN</i>	0.24	1.01	0.23	0.97	0.26	1.08	0.24	0.99
<i>BIG4</i>	0.76***	2.57	0.77***	2.61	0.82***	2.75	0.83***	2.78
<i>SPECIALIST</i>	-0.41	-0.77	-0.41	-0.76	-0.36	-0.66	-0.34	-0.63
<i>IMPOR</i>	-1.48	-0.88	-1.42	-0.85	-1.69	-1.00	-1.70	-1.01
N	3828		3828		3828		3828	
Pseudo R <sup>2</sup>	0.32		0.32		0.33		0.33	

注：变量定义见表 1，\*\*\*表示在 1%的水平上显著，\*\*表示在 5%的水平上显著，\*表示在 10%的水平上显著。表 10 中模型 2-1、2-2、3-1 和 3-2 的因变量均为 *OPIN\_ORDER*。由于篇幅所限，表 10 中没有列示出年度变量、地区变量和行业变量的回归结果。

表 10 列示了审计意见 Ologit 回归结果。由表 10 模型 2-1 和 2-2 可知，*RESTATE* 与 *RESTATE\_ORDER* 的系数均在 1%的水平上显著大于 0。这说明审计师不仅会运用非标准审计意见应对财务重述所蕴含的重述当期信息风险，同时随着财务重述性质严重程度的提高，审计师出具的非标准审计意见也将更为严厉，这进一步支持假设 2a 和 2b。由表 10 模型 3-1 和 3-2 可知，在控制了公司的信息风险后，*RESTATE* 与 *RESTATE\_ORDER* 的系数仍然在 1%的水平上显著大于 0，这同样不支持假设 3a 和 3b。

#### (四) 其他的稳健性检验

除上述检验外，我们还执行了如下敏感性测试：

(1) 我们将研究样本限定为财务重述公司，并且在模型1-4、1-5、2-2和3-2中引入4个变量，分别控制财务重述的程度、方向、涉及的会计事项以及项目数量的影响，以进一步验证假设1b、2b和3b。其中，*ABRATIO*表示财务重述的程度，借鉴Palmrose and Scholz (2004)的做法，以财务重述对前期留存收益的累计影响额除以重述前的总资产进行计量；*DIRECT*表示财务重述的方向，如果是调低前期盈利的重述，取值为1，否则为0。*CORE*表示财务重述涉及的会计事项，如果属于核心会计事项的重述取值为1，否则为0。<sup>12</sup> *NUM*表示财务重述的项目数量，如果重述项目大于或等于3项，取值为1，否则为0。实证结果同样支持假设1b和2b，而不支持假设3b。

(2) 模型1与模型2及模型3样本差异主要源于模型1中包含了公司经营项目数量变量(*SEGMENT*)。为了进一步控制样本选择的影响，我们在模型1中剔除*SEGMENT*，使模型1与模型2及模型3的样本趋于一致。研究表明，模型1-1至1-5的实证结果未发生显著的变化。另外，我们还在模型2和模型3中引入*SEGMENT*，使模型1与模型2及模型3的样本趋于一致。研究表明，模型2-1、2-2、3-1和3-2的实证结果也未发生显著的变化。

(3) 为了进一步控制财务重述可能存在的内生性问题，我们在检验审计师对财务重述的风险反应时，同样采用了Heckman两阶段回归模型。其计量方法与前述Heckman两阶段回归一致。两个工具变量与财务重述(*RESTATE*)及财务重述性质(*RESTATE\_ORDER*)显著正相关，而与包含所有外生变量的审计意见模型的回归残差不存在显著的相关关系。因此，基于这些工具变量的Heckman两阶段回归模型也是可靠的。两阶段回归结果仍然支持假设2a和2b，而不支持3a和3b。而且，*IMR*的系数在统计意义上并不显著，这进一步说明财务重述不存在明显的内生性问题。

(4) 为了控制极端值的影响，我们将模型1、模型2和模型3中所有连续变量按上下1%分位数进行截取(Winsorize)，即高于上1%分位数的样本按上1%分位数取值，低于下1%分位数的样本按下1%分位数取值；极端值的剔除对实证结果没有产生显著的影响。

(5) 我们对模型1-1至1-5、模型2-1、2-2、3-1、3-2重新进行Probit回归分析。Logit和Probit的主要区别在于采用的分布函数不同，前者假设随机变量服从逻辑概率分布，而后者假设随机变量服从正态分布。采用Probit方法后回归结果也没有发生显著的变化。

## 七、研究结论

财务重述的经济后果一直是监管机构和学术界关注的重要问题。但是，财务重述所引发的一系列经济后果是源于市场对财务重述所蕴含的重述当期信息风险的理

<sup>12</sup> 与Palmrose and Scholz (2004)的定义一致，核心重述的定义为涉及收入、主营业务成本及营业费用的重述，其余的均为非核心重述。

性判断，还是非理性的认知，目前尚没有学者对此进行深入研究。而本文选择审计师视角试图回答这一基本的理论问题。我们研究发现，第一，相对于非财务重述公司，重述公司财务报告中存在重大错报的可能性更大。而且随着财务重述性质严重程度提高，重述公司财务报告存在重大错报的可能性和严重程度也不断提高。第二，相对于非财务重述公司，重述公司被审计师出具严厉审计意见的可能性更大，并且财务重述的性质越严重，审计师对重述公司出具严厉审计意见的可能性也越大。第三，在控制了样本公司的信息风险后，审计师对财务重述公司的风险反应并没有发生显著的变化。我们的研究结果在考虑了财务重述的内生性问题、信息风险的度量问题、审计意见分类、样本选择、极端值和替代性计量模型的影响后仍然是稳健的。

这些研究结果表明，财务重述确实意味着公司存在较高的信息风险，并且财务重述的性质是决定信息风险程度的重要因素。作为资本市场重要参与主体和信息中介，审计师能够部分理性的识别财务重述所蕴含的重述当期信息风险，与此同时审计师对财务重述信息风险的认知又包含部分感性的成分。由此，我们可以得出这样的结论，市场对财务重述所蕴含的重述当期信息风险可能既包含部分理性的判断，又存在一定的非理性的认知偏差。本文的结论不仅扩展了财务重述经济后果的研究边界，更为重要的是进一步厘清了财务重述经济后果的产生机理，弥补了此方面理论研究的空白。此外，我们的研究结论从客户声誉角度扩展了审计风险评估与管理行为研究。

除了理论方面的贡献之外，本文的结论还可能对监管机构、会计师事务所和相关学者的实践具有指导作用。在监管机构层面，首先，由于上市公司的财务重述行为不仅表明公司前期具有较差的财务报告质量，更重要的是还意味着公司在重述当期具有较高的信息风险。因此，要有效治理财务重述行为，监管机构应淡化重述发起方的角色，强化公司治理机制和中介机构在发现和更正公司前期差错中的作用，并将财务重述作为公司当期具有较高信息风险的信号，加强对该类公司重述当期信息风险的监管，逐渐将监管的方向从发起重述转向预防重述。其次，由于财务重述既可能是由管理层盈余操纵导致的，又可能是由公司内部控制缺陷和会计准则的不适应性造成的，而且财务重述的内在原因不同，重述当期信息风险的程度也存在显著差异。因此，在治理策略上，监管机构应深入解读重述背后的内在原因，并在此基础上制定有针对性的治理措施，做到有的放矢。最后，虽然证券市场对财务重述所蕴含的重述当期信息风险包含部分理性的判断，但又存在一定非理性的认知偏差，而这种认知偏差很大程度上源于重述公司与证券市场其他参与者之间在重述信息上的不对称。早在2003年12月中国证监会就发布了《公开发行证券的公司信息披露编报规则第19号—财务信息的更正及相关披露》。然而，上市公司实际的披露情况却不尽如人意。这主要表现在财务重述披露的时间上不及时，原因的解释上过于笼统，发起方的表达上含糊其辞，涉及的具体项目以及对财务状况和经营成果的影响上不完整。因此，监管机构可以考虑出台明晰化的财务重述信息披露指引，进一步规范财务重述的公告时间、公告内容和公告的格式，以此增强财务重述信息的透明度。

在会计师事务所层面，由于审计师不能完全理性的识别财务重述蕴含的重述

当期信息风险，则其作为证券市场的重要信息中介和参与主体非但无法通过恰当的决策行为向其他市场主体传递有价值的、理性的风险信号，甚至还可能进一步放大证券市场对于财务重述信息风险的认知偏差，从而对证券市场的运行效率产生严重的负面影响。因此，会计师事务所应强化以风险为导向的审计执业准则体系的执行力度，激励会计师事务所内部质量控制创新，严格限制审计师与客户的经济联系和私人关系以及审计师个体特征对其职业判断的不利影响，并积极构建会计师事务所声誉机制和文化约束机制，以此增强审计师对信息风险的识别和应对能力。

在相关学者层面，我们的研究结论也将促使其在选择财务重述作为替代变量（如盈余操纵、财务报告质量等）时更为谨慎。因为，财务重述的内在原因比较复杂，其蕴含的风险程度也存在很大差异，只有深入理解了财务重述的性质，才能准确判断其是否能作为研究需要的替代变量。

虽然我们的研究具有一定的理论贡献和实践意义，但也存在如下潜在的不足和局限性：第一，对于财务重述内在原因的判断，我们主要依据公开可知的信息，无法获得上市公司私有信息进行验证；第二，对于2004至2006年的重大会计差错样本，我们主要通过2005至2009年的财务重述公告进行搜集，因此无法排除有极少数2004至2006年期间发生的重大会计差错是在2009年以后被重述的情况。第三，依据Lennox, Francis, and Wang (2012)的研究，我们对Selection Models及其结果的有效性进行了详细的分析，但在工具变量和模型具体形式的选择上仍无法完全排除主观因素的影响；第四，我们主要基于审计意见考察审计师对财务重述的风险反应，而没有考虑其他可能的风险管理战略。这些方面有待于通过进一步的研究予以改进。

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## Financial Restatement, Information Risk, and Market Perception: Evidence from Auditors\*

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### Abstract

From the perspective of auditors, this paper investigates the relationship between financial restatement and material misstatement and then examines the effect of financial restatement on audit reporting decisions. Using the data of Chinese listed companies between 2004 and 2006, we find that (1) restatement companies have higher information risk than non-restatement companies, and the nature of financial restatement is an important determinant of the severity of the information risk; (2) the auditor can identify the information risk of restatement in the restatement period and make different risk responses depending on the nature of the restatement; and (3) after controlling for information risk, the risk response of auditors to financial restatement companies does not change significantly. Our results suggest that the capital market's cognition of the information risk of financial restatement is based on both rational judgments and irrational perceptions.

**Keywords:** Financial Restatement, Nature, Information Risk, Auditors, Market Perception

**CLC Codes:** F23, F239, F830

\* We wish to thank the executive editor Dr Simon Fung and two anonymous reviewers for their insightful comments and suggestions and Prof Xi Wu and Dr Junsheng Zhang for their helpful discussions. This study has been supported by the National Natural Science Foundation of China (No. 71102126), the Ministry of Education (MOE) Project of Key Research Institute of Humanities and Social Sciences at Universities (No. 10JJD630003), the MOE Project of Humanities and Social Sciences (No. 10YJC790257), Project 211 of the Central University of Finance and Economics, and the Joint Construction Project of Beijing Municipal Commission of Education.

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## I. Introduction

In capital markets, financial restatement is an important and increasingly common corporate event. According to the statistical analysis of Scholz (2008), from 1997 to 2006, the number of restatements grew 18-fold and the size of restatement companies grew 8.5-fold. Financial restatement is also becoming increasingly frequent in China. Cao (2010) finds that 11.68 per cent of all listed companies restated previously issued financial statements between 2003 and 2006 and that the proportion of major financial restatements increased from 5.8 per cent in 2003 to 15.79 per cent in 2006. Against this background, regulatory agencies and researchers pay more attention to the economic consequences of financial restatement. A comparatively rich literature based on the perspectives of investors, creditors, and securities analysts can be found in this field of research (GAO, 2002; Palmrose *et al.*, 2004; Scholz, 2008; Graham *et al.*, 2008).

Why then would financial restatement cause a series of economic consequences? According to the extant theory, financial restatement not only suggests that the company has a higher information risk in the misstatement period but also shakes investors' confidence in the company's financial reporting system. Thus, the capital market's cognition of the information risk of financial restatement also increases significantly in the restatement period (Hribar and Jenkins, 2004; Wilson, 2008; Kravet and Shevlin, 2010). However, is the capital market's cognition of the information risk of (a) restatement and (b) restatements of different nature based on rational judgment or pure irrational perception or both? Do systematic cognitive biases exist in the market? Currently, there is no research on these questions. Therefore, using the data of Chinese listed companies between 2004 and 2006, this paper investigates the relationship between financial restatement and material misstatement and then examines the effect of financial restatement on audit reporting decisions.

We select the auditors' perspective mainly for two reasons. First, auditors are important participants and information intermediaries in the capital market, and they have a greater advantage in terms of professional knowledge, skills, and information compared with other market participants. Moreover, auditors adopt a more cautious and objective attitude in order to meet professional requirements. Auditors' cognition of the information risk of financial restatement is a good measure of the market's level of cognition about restatement. Therefore, examining how auditors evaluate the information risk of financial restatement could help us to understand the market's level of cognitive bias against the information risk of restatement. Second, the objective of auditors is to issue an audit opinion on the fairness and legitimacy of a client's financial reporting. They focus on the quality of financial reporting, and their audit reporting decisions are not affected by the company's future cash flow. Therefore, we can eliminate interference from the wealth effect of financial restatement<sup>2</sup> by selecting the auditors' perspective

<sup>2</sup> The wealth effect of restatement is the phenomenon that because a company's historical financial data are amended by restatements, information users will change their expectations for future cash flow (Graham *et al.*, 2008).

and provide more direct empirical evidence for understanding the market's cognition of the information risk of financial restatement.

First, we find that restatement companies are more likely to have material misstatements in their financial reporting than other companies. The more serious the nature of the restatement is, the more likely it is that the company's financial reporting contains material misstatements. Meanwhile, the severity of the material misstatements is also higher. This result suggests that restatement companies have a higher information risk and that the nature of a restatement is an important determinant of the severity of the information risk. Second, auditors are more likely to issue strict audit opinions for restatement companies, and the more serious the nature of the restatement, the more likely it is that the auditor will issue a strict audit opinion. The auditor can make a risk response to a restatement and make a different risk response depending on the nature of the restatement. At the very least, this result suggests that the auditor can, in part, rationally identify the information risk of a restatement in the restatement period. Finally, after controlling for information risk, the risk response of auditors to restatement companies does not change significantly. This result suggests that auditors' cognition of the information risk of financial restatement is partly irrational. Given all of the above, we reach the following conclusion: The capital market's cognition of the information risk of financial restatement is based on both rational judgments and irrational perceptions.

This paper makes certain contributions to the accounting and auditing literature. First, the extant literature attributes the economic consequences of restatement to the market's cognitive adjustment to the information risk of restatement companies in the restatement period. However, there is no research examining whether this cognitive adjustment is based on rational judgment or irrational perception. From the perspective of auditors, this paper further clarifies the mechanism of the economic consequences of restatement and fills a gap in the theoretical research. Second, although the extant literature has examined the economic consequences of financial restatement from the perspective of investors, creditors, and other market participants, researchers have neglected auditors' risk response to restatement. This paper investigates how auditors evaluate the information risk of restatement and whether and how auditors transfer valuable signals to the market through their audit reporting behaviour. This paper expands the scope of the research on the economic consequences of restatement, and the research conclusion could help to improve the capital market's efficiency. Finally, in the extant audit literature, researchers focus on the reputation of auditors and mainly examine the effect of auditors' reputation on audit pricing and audit quality. This paper further expands the research on audit risk assessment and management by examining auditors' risk response to client reputation, which is measured by restatement.

In addition, the conclusions of this paper have certain implications for regulatory agencies, audit firms, and researchers. To effectively govern financial restatement, regulators should de-emphasise the role of the "restatement prompter", strengthen the



supervision of information risk in the restatement period, and change the regulation direction from prompting restatement to preventing restatement. As far as regulatory strategies are concerned, regulatory agencies should understand thoroughly the underlying causes of restatement and develop pertinent measures. With regard to regulatory methods, they should issue clear guidelines on the information disclosure of restatement; further standardise the time, content, and format of restatement announcements; and enhance the transparency of restatement. Audit firms should further improve their ability to evaluate risk in order to play the external governance role well. Specific measures include strengthening the implementation of risk-oriented auditing standards, encouraging innovations in internal quality control, strictly limiting the adverse effects of economic ties and personal relationships between the audit firm and the client on audit quality, and actively constructing mechanisms for monitoring (a) the reputation of certified public accountants (CPAs) and (b) cultural constraints. As for researchers, they should be more cautious when they use restatement as a surrogate variable for earnings manipulation or the quality of financial reporting.

The remainder of the paper proceeds as follows. Section II provides a literature review and discusses our hypotheses, Section III describes our research design, and Section IV presents the sample selection and the criteria regarding the nature of restatement and misstatement. The descriptive statistics and empirical results are described in Section V. We check the robustness of our findings in Section VI. Finally, we summarise and discuss our findings in Section VII.

## II. Literature Review and Hypothesis Development

### 2.1 Literature Review on Economic Consequences of Restatement

Western researchers have provided preliminary empirical evidence on the economic consequences of restatement from the perspectives of different market participants. First, researchers have focused on the consequences of restatement from the perspective of equity holders. GAO (2002), Palmrose *et al.* (2004), and Scholz (2008) investigate the reaction of investors to restatement in a short time window or long time window, and they all find significantly negative cumulative abnormal returns. Moreover, the extant literature further suggests that restatement increases companies' cost of equity capital (Hribar and Jenkins, 2004) and decreases the market's reaction to earnings announcements (Wilson, 2008). Second, researchers have paid attention to the reaction of debt holders to restatement. Graham *et al.* (2008) examine the effect of restatement on bank loan contracting. They find that compared with loans initiated before restatement, loans initiated after restatement have significantly higher spreads, shorter maturities, a higher likelihood of being secured, and more covenant restrictions. Finally, researchers have focused on analysts' reactions to restatement. Palmrose *et al.* (2004) find a significant downward revision in earnings forecasts and a significant increase in the forecast

dispersion after a restatement is disclosed.

Researchers have also examined the market's reaction to restatements of different nature. Palmrose *et al.* (2004) document an average abnormal return of -9.2 per cent for all restatement companies and an average abnormal return of -20.0 per cent for companies suspected of fraud restatement over a two-day announcement window. Hirschey *et al.* (2005) find similar results. Scholz (2008) also examines the market's reaction to financial restatement using 3,310 US listed companies between 1997 and 2006. She finds that over a two-day announcement window, the average abnormal return is -3.0 per cent for restatement companies and -13.0 per cent for companies making a restatement for the purpose of earnings manipulation.

In China, the literature on the economic consequences of restatement is very limited and focuses on reviewing Western literature (Wang and Wei, 2008; He, 2010; Chen, Hu, and Zhou, 2010). Only a few empirical studies exist. Wang and Zhang (2005) find that audit opinions are affected by the magnitude of the restatement and the number of items restated. Chen (2006) finds that amendment announcements initiated by regulatory agencies trigger negative market reactions. Zhou and Li (2007) find that the market reacts negatively to amendment announcements concerning downward adjustments to reported income, capital appropriation or guarantees. Wei, Li, and Wang (2009) conduct a relatively systematic study on market reactions to the amendment announcements of Chinese listed companies and find that there are negative reactions to restatements involving a decrease in reported income. However, it should be pointed out that in China, some of the amendment announcements are not financial restatements in a strict sense because the reported earnings are not corrected.

From a review of the literature, we can see that the Western literature suggests that restatement can lead to a series of serious economic consequences. Although there is a remarkable gap between Chinese and Western research in terms of the breadth and depth of study, the former also finds that restatement can cause negative market reactions. Financial restatement is an amendment to the reported financial statements and suggests that the quality of the reported financial statements is low. Why then does restatement lead to negative market reactions in the restatement period? Why do restatements of different nature lead to differential market reactions?

The extant interpretation is that restatement not only suggests that a company has a higher information risk in the misstatement period but also shakes investors' confidence in the company's financial reporting system. Thus, the capital market's cognition of the information risk of restatement also increases significantly in the restatement period (Kravet and Shevlin, 2010). Moreover, the confidence of information users decreases and the market's cognition of the information risk of restatement increases when the nature of a restatement becomes more serious. However, is the capital market's cognition of the information risk of (a) restatement and (b) restatements of different nature based on rational judgment or a purely irrational perception or both? Does a systematic cognitive

bias exist in the market? Currently, there is no research on these issues.

## 2.2 Financial Restatement and Information Risk

In order to fill the gap found in the theoretical studies above, we examine four questions. The first question is whether financial restatement means that a company has a higher information risk in a restatement period. To answer this question, we need to discuss the relationship between company reputation and information risk.<sup>3</sup> The extant literature (Wilson, 1985; Weigelt and Camerer, 1988) posits that companies with higher reputations emphasise accountability, credibility, and trustworthiness and build these values into their cultures so that they are reflected not only through formal rules and structures but also through unwritten rules and traditions. When contracts cannot specify all possible outcomes, corporate culture can act as a substitute for costly communication and contracting by inducing employees to take appropriate actions (Hermalin, 2001).

Company reputation can affect the financial reporting system through a variety of channels. Specifically, where company reputation is high, (1) there may be an atmosphere that encourages employees to be responsible and trustworthy in the performance of their job functions, and in the accounting department, this means producing reliable financial reports; (2) the board of directors may be more willing to make investments that enhance financial reporting quality, including adopting advanced technologies and hiring higher quality staff in the company's accounting, finance, and internal audit divisions; and (3) the board of directors and the chief executive officer (CEO) may be more willing to hire financial executives who have specific expertise but who are also known for their high degree of integrity. Thus, we know that company reputation is negatively related to information risk theoretically. Cao, Myers, and Omer (2012) provide corresponding empirical evidence for this; they find that company reputation is negatively correlated with the possibility of material misstatement.

Financial restatement suggests that reported financial statements contain material misstatements. This means that the reputation level of a restatement company, and especially the reputation of its financial reporting system, is low. According to the negative relationship between company reputation and information risk, we can infer that financial restatement companies have a higher information risk. The financial reports of these companies are more likely to contain material misstatements. Therefore, we propose the following hypothesis:

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<sup>3</sup> Company reputation and corporate governance are related but are fundamentally different. Both are means to reduce agency problems and both are examined and supported by analytical models characterised by information asymmetry and moral hazards. However, the reputation effect requires no formal contracts because it relies on self-disciplining, and reputation research emphasises the dynamics of repeated interactions between players. In contrast, the principal-agent models that underlie corporate governance mechanisms rely on formal contracts and external monitoring, and many corporate governance models are built in a single-period setting. We choose the reputation mechanism as the theoretical basis for this study because the information risk of restatement can be better explained by this mechanism.

**H1a: Compared with other companies, material misstatements are more likely to exist in the financial reports of the restatement company.**

The second question is whether an increase in the information risk of restatement companies is accompanied by an increase in the severity of the nature of the restatements. Since regulatory agencies and researchers have been focusing on the earnings manipulation motivation of restatement (Zhang and Wang, 2004; Callen *et al.*, 2008; Kedia and Philippon, 2009), the motivations behind restatement are generally classified into earnings manipulation and non-earnings manipulation. However, through a deep analysis of restatement announcements, Plumlee and Yohn (2010) find that the main cause of financial restatements is internal control deficiency rather than earnings manipulation. In addition, restatements are also caused by the inadaptability of accounting standards.

Restatements caused by the inadaptability of accounting standards are not related to the company itself; they just suggest that the corresponding accounting standards are not clear and perfect. Restatements caused by internal control deficiencies suggest that the company is deficient in management ability. Restatements caused by earnings manipulation indicate that the company's morality is very weak. Therefore, the severity of the nature of the restatement increases as the cause changes from the inadaptability of accounting standards to internal control deficiencies and then to earnings manipulation. This also means that the reputation of a restatement company, especially the reputation of its financial reporting system, gets worse and worse. As mentioned above, company reputation is negatively correlated to information risk. Therefore, we propose the following hypothesis:

**H1b: The more serious the nature of restatement, the more likely it is that material misstatements exist in the financial reports of the restatement company.**

### **2.3 Financial Restatement and Audit Opinion**

If Hypotheses 1a and 1b are true, our next question is whether the market can identify the information risk of restatement in the restatement period rationally. We choose the perspective of auditors for our research. As important information intermediaries in the capital market, auditors' cognition of the information risk of financial restatement is a good measure of the market's level of cognition about restatement. Meanwhile, auditors focus on the quality of financial reporting, and so their audit reporting decisions are not affected by a company's future cash flow. Therefore, we can eliminate interference from the wealth effect of restatement and provide more direct empirical evidence for understanding the market's cognition of the information risk of restatement.

If the auditor can identify the information risk of restatement rationally in the

restatement period, he/she will take measures to deal with it in order to keep the audit risk within an acceptable level. The most direct and effective risk management strategy may be to issue a strict audit opinion (Kim *et al.*, 2006). Moreover, if the auditor can identify the difference in information risk between restatements of different nature, the possibility of issuing a strict opinion would be differential.<sup>4</sup> Xin and Huang (2009) find that auditors adopt differential audit reporting strategies for different ways of earnings management. Their result also provides indirect evidence for our following hypotheses. We therefore propose Hypotheses 2a and 2b:

**H2a: Compared with non-restatement companies, auditors are more likely to issue a strict audit opinion to restatement companies.**

**H2b: The more serious the nature of restatement, the more likely it is that an auditor will issue a strict audit opinion.**

If the above hypotheses are true, our last question is whether the market's cognition of the information risk of restatement is based on total rationality or limited rationality.<sup>5</sup> We choose the perspective of auditors for our research. If an auditor's cognition of the information risk of restatement is based on total rationality, the possibility of an auditor issuing a strict opinion should be the same for restatement companies and non-restatement companies after we control for information risk. Meanwhile, the possibility of an auditor issuing a strict opinion should also be the same among restatements of different nature after we control for information risk. Therefore, we propose the following hypotheses:

**H3a: After controlling for risk information, the possibility of an auditor issuing a strict opinion is the same for restatement companies and non-restatement companies.**

**H3b: After controlling for risk information, the possibility of an auditor issuing a strict opinion is the same among restatements of different nature.**

### III. Research Design

#### 3.1 Material Misstatement Model

We set up the material misstatement model according to Cao, Myers, and Omer (2012) in order to examine the information risk of restatement. The full regression model is as follows:

<sup>4</sup> The China Securities Regulatory Commission (CSRC) issued a notice on 6 January 2004 that auditors should pay more attention to the treatment, disclosure, and nature of restatement and issue appropriate audit opinions.

<sup>5</sup> The extant literature suggests that investors' cognitive resources are restricted due to emotional and psychological factors. This leads to irrational bias against earnings information (Li and Zhang, 2011).

$$\begin{aligned}
\underline{MISSTATE/MISSTATE\_ORDER} = & \beta_0 + \beta_1 \underline{RESTATE/RESTATE\_ORDER} + \beta_2 \underline{LNASSET} \\
& + \beta_3 \underline{LEVERAGE} + \beta_4 \underline{ROA} + \beta_5 \underline{REVRATIO} + \beta_6 \underline{STORATIO} \\
& + \beta_7 \underline{LOSS} + \beta_8 \underline{AGE} + \beta_9 \underline{MERGER} + \beta_{10} \underline{FINANCING} \\
& + \beta_{11} \underline{AFFILIATE} + \beta_{12} \underline{SEGMENT} + \beta_{13} \underline{SALE\_GROWTH} \\
& + \beta_{14} \underline{OWNERSHIP} + \beta_{15} \underline{BOARD\_SIZE} + \beta_{16} \underline{BOARD\_CONFER} \\
& + \beta_{17} \underline{CHAIR\_CEO} + \beta_{18} \underline{BOARD\_INDEP} + \beta_{19} \underline{MSHARE} \\
& + \beta_{20} \underline{BOARD\_AUDIT} + \beta_{21} \underline{BIG4} + \beta_{22} \underline{SPECIALIST} \\
& + \beta_{23} \underline{IMPOR} + \beta_{24} \underline{YEAR}_{2004} + \beta_{25} \underline{YEAR}_{2005} + \beta_{25} \\
& + i \sum_{i=1}^4 \underline{REGION}_i + \beta_{29} + j \sum_{j=1}^{11} \underline{INDUSTRY}_j + \varepsilon \quad (1)
\end{aligned}$$

Where:

$MISSTATE = 1$  if the company misstates its annual financial statement for the given period and 0 otherwise;

$MISSTATE\_ORDER = 1$  if the misstatement is caused by the inadaptability of accounting standards, 2 if the misstatement is caused by internal control deficiencies, 3 if the misstatement is caused by earnings manipulation, and 0 if there are no misstatements in the financial statement;

$RESTATE = 1$  if the financial statement is restated and 0 otherwise;

$RESTATE\_ORDER = 1$  if the financial statement is restated due to previous inadaptability of accounting standards, 2 if the financial statement is restated due to previous internal control deficiencies, 3 if the financial statement is restated due to previous earnings manipulation, and 0 if the financial statement is not restated;

and all other variables are defined as in Table 1.

### 3.1.1 Dependent Variables

$MISSTATE$  and  $MISSTATE\_ORDER$  are the dependent variables of Model 1.

### 3.1.2 Experimental Variables

$RESTATE$  and  $RESTATE\_ORDER$  are the experimental variables of Model 1. If Hypotheses 1a and 1b are true, we expect that the coefficients of  $RESTATE$  and  $RESTATE\_ORDER$  will be significantly greater than 0.



**Table 1** Variable Definitions**Dependent variables**

*MISSTATE* = 1 if the company misstates its annual financial statement for a given period and 0 otherwise;

*MISSTATE\_ORDER* = 1 if misstatements are caused by the inadaptability of accounting standards, 2 if misstatements are caused by internal control deficiencies, 3 if misstatements are caused by earnings manipulation, and 0 if there are no misstatements in the financial statement;

*OPIN* = 1 if the auditor issues a modified audit opinion and 0 otherwise.

**Experimental Variables**

*RESTATE* = 1 if the financial restatement is restated and 0 otherwise;

*RESTATE\_ORDER* = 1 if the financial statement is restated due to previous inadaptability of accounting standards, 2 if the financial statement is restated due to previous internal control deficiencies, 3 if the financial statement is restated due to previous earnings manipulation, and 0 if the financial statement is not restated.

**Control Variables**

*PREOPIN* = 1 if the auditor issues a modified audit opinion in the previous year and 0 otherwise;

*DA* = the signed value of discretionary accruals calculated by the modified Jones model;

*LNASSET* = the natural logarithm of the company's total assets;

*LEVERAGE* = long-term debt plus short-term debt divided by total assets;

*ROA* = net income divided by total assets at the end of the year;

*REVRATIO* = receivables divided by total assets;

*STORATIO* = inventory divided by total assets;

*AR\_IN* = receivables and inventory divided by total assets;

*LOSS* = 1 if the company reported a loss in the previous year and 0 otherwise;

*AGE* = the square root of the number of years a company has been listed;

*MERGER* = 1 if the company engages in a merger or acquisition during the year and 0 otherwise;

*FINANCING* = 1 if *MERGER* is not equal to 1 and if the number of shares outstanding increases by at least 10 per cent during the year or if *MERGER* is not equal to 1 and if long-term debt increases by at least 20 per cent during the year and 0 otherwise;

*AFFILIATE* = square root of the number of subsidiaries;

*SEGMENT* = the number of business segments;

*SALE\_GROWTH* = the ratio of prime operating revenue growth;

*OWNERSHIP* = 1 if the company is state owned and 0 otherwise;

*BOARD\_SIZE* = the number of board members;

*BOARD\_CONFER* = the number of board meetings;

*CHAIR\_CEO* = 1 if the chairman and CEO is the same person, 2 if the CEO is the vice-chairman or a director, and 3 if the CEO is not a director;

*BOARD\_INDEP* = the percentage of the company's independent directors;

*MSHARE* = the percentage of shares owned by executives;

*BOARD\_AUDIT* = 1 if the company sets up an audit commission and 0 otherwise;

*FOREIGN* = 1 if there are foreign investors among the top 10 investors and 0 otherwise;

*BIG4* = 1 if the company is audited by a Big Four CPA firm and 0 otherwise;

*SPECIALIST* = the level of industry specialisation measured according to client revenue;

*IMPOR* = the natural logarithm of a client's assets divided by the natural logarithm of total assets of the audit firm that issues the audit report;

*YEAR<sub>i</sub>* = year indicators;

*REGION<sub>i</sub>* = region indicators;

*INDUSTRY<sub>i</sub>* = industry indicators.

### 3.1.3 Control Variables

First, we consider the effect of companies' general characteristics. Although most prior studies find no relation between size and fraud, we control for company size (*LNASSET*). We also control for leverage (*LEVERAGE*) following the literature, motivated by the debt covenant hypothesis (Watts and Zimmerman, 1986) that examines the relation between earnings quality and debt covenants. We control for return on assets (*ROA*) because prior studies have found associations between financial performance and misstatement or fraud. We control for the proportion of receivables in total assets (*REVRATIO*) and the proportion of inventory in total assets (*STORATIO*) because fraud is more likely to happen when these proportions are at a higher level (Feroz *et al.*, 1991; Summers and Sweeney, 1998). We control for previous loss (*LOSS*) because losses for consecutive years lead to special treatment against the listed company. We control for the years of listing because Chinese firms are more susceptible to financial distress than their overseas counterparts once they have exhausted the capital raised from initial public offerings (IPOs).

We control for mergers and acquisitions (*MERGER*) following Kinney *et al.* (2004) and for new financing (*FINANCING*) following Dechow *et al.* (1996) and Erickson *et al.* (2006). We include two measures of business complexity – square root of subsidiaries (*AFFILIATE*) and the number of business segments (*SEGMENT*) – because the prior literature suggests that business complexity is associated with low quality accounting information (Ashbaugh-Skaife *et al.*, 2008). We control for the growth of a company (*SALE\_GROWTH*) because the better a company's growth, the weaker the internal control is. In addition, we include 4 district dummy variables (*REGION*),<sup>6</sup> 2 year dummy variables (*YEAR*),<sup>7</sup> and 11 industry dummy variables (*INDUSTRY*)<sup>8</sup> because misstatement may vary across districts, years, and industries due to changes in business and legal environments or because of macroeconomic conditions. Owing to the lack of consistent interpretation and empirical evidence, we do not make predictions for these control variables.

Second, we consider the effect of corporate governance characteristics. We control for the type of ultimate ownership (*OWNERSHIP*) because a company will have serious agency problems if it is state owned. We control for the size of the board (*BOARD\_SIZE*) because Yermack (1996) finds that smaller boards are more effective. We control for

<sup>6</sup> In Taylor and Simon (1999), China is divided into five regions according to the level of economic development, and four regional dummies are introduced: *REGION*<sub>1</sub> is an indicator variable set to 1 if the listed company is located in Shanghai, Beijing, Tianjin, Guangdong, and Zhejiang and 0 otherwise; *REGION*<sub>2</sub> is an indicator variable set to 1 if the listed company is located in Fujian, Jiangsu, Shandong, and Liaoning and 0 otherwise; *REGION*<sub>3</sub> is an indicator variable set to 1 if the listed company is located in Heilongjiang, Jilin, Xinjiang, Hainan, Hubei, and Hebei and 0 otherwise; *REGION*<sub>4</sub> is an indicator variable set to 1 if the listed company is located in Guizhou, Qinghai, Gansu, Ningxia, and Shaanxi, and 0 otherwise.

<sup>7</sup> Because our sample involves three fiscal years, Model 1 contains two dummy variables (*YEAR*<sub>2004</sub> and *YEAR*<sub>2005</sub>).

<sup>8</sup> Our sample is divided into 12 industries according to the *Classification Guidance for Chinese Listed Companies* issued by the CSRC. So, Model 1 contains 11 industry dummy variables.

board diligence, measured as the number of board meetings (*BOARD\_CONFER*), because the more diligent a board is, the more likely it is that it can find misstatements. We control for the position allocation of the chairman and CEO (*CHAIR\_CEO*) because clear position allocation is helpful for improving the efficiency of the board. We control for board independence (*BOARD\_INDEP*) because Beasley (1996) finds a lower probability of financial statement fraud in companies with more independent boards and Klein (2002) finds that board independence is positively related to accruals quality. We control for manager ownership (*MSHARE*) because Warfield *et al.* (1995) find that greater manager ownership is associated with greater earnings informativeness and better accruals quality. We also control for the establishment of an audit commission (*BOARD\_AUDIT*) because DeFond and Jiambalvo (1991) find that an audit commission can decrease the possibility of overvaluing earnings and Dechow *et al.* (1996) find that companies that have established audit commissions are less likely to have fraud. Therefore, we expect that the coefficients of *OWNERSHIP* and *BOARD\_SIZE* will be positive and those of *BOARD\_CONFER*, *CHAIR\_CEO*, *BOARD\_INDEP*, *MSHARE*, and *BOARD\_AUDIT* will be negative.

Finally, we consider the effect of audit firm characteristics. We control for audit firm size because large auditors are more competent or more concerned about their reputation (DeAngelo, 1981) and more likely to find misstatements. We control for the degree of specialisation of the auditor industry (*SPECIALIST*), which may increase disclosure quality (Dunn and Mayhew, 2004) and reduce the incidence of fraud (Carcello and Nagy, 2004). Therefore, we expect that the coefficients of industry expertise and auditor size variables should be positive. We also control for client importance (*IMPOR*). Because the relationship between client importance and audit quality is not clear (Reynolds and Francis, 2001; Craswell *et al.*, 2002; Gaver and Paterson, 2007; Ghosh *et al.*, 2009; Chen, Sun, and Wu, 2010), we do not predict the sign of the coefficient of *IMPOR*.

### 3.2 Audit Opinion Model

In accordance with the extant literature (DeFond *et al.*, 1999; Chen *et al.*, 2001; Chen and Zhang, 2007), we set up an audit opinion model in order to examine the market's cognition of the information risk of restatement in the restatement period. The full regression model is as follows:

$$\begin{aligned}
 OPIN = & \beta_0 + \beta_1 RESTATE/RESTATE\_ORDER + \beta_2 PREOPIN + \beta_3 LNASSET \\
 & + \beta_4 LEVERAGE + \beta_5 ROA + \beta_6 AR\_IN + \beta_7 LOSS + \beta_8 AGE \\
 & + \beta_9 SALE\_GROWTH + \beta_{10} OWNERSHIP + \beta_{11} BOARD\_SIZE \\
 & + \beta_{12} BOARD\_CONFER + \beta_{13} CHAIR\_CEO + \beta_{14} BOARD\_INDEP \\
 & + \beta_{15} MSHARE + \beta_{16} BOARD\_AUDIT + \beta_{17} FOREIGN + \beta_{18} BIG4 \\
 & + \beta_{19} SPECIALIST + \beta_{20} IMPOR + \beta_{21} YEAR_{2004} + \beta_{22} YEAR_{2005} \\
 & + \beta_{22} + i \sum_{i=1}^4 REGION_i + \beta_{26} + j \sum_{j=1}^{11} INDUSTRY_j + \varepsilon
 \end{aligned} \tag{2}$$

$$\begin{aligned}
OPIN = & \beta_0 + \beta_1 RESTATE/RESTATE\_ORDER + \beta_2 MISSTATE/MISSTATE\_ORDER \\
& + \beta_3 DA + \beta_4 PREOPIN + \beta_5 LNASSET + \beta_6 LEVERAGE + \beta_7 ROA \\
& + \beta_8 LOSS + \beta_9 AR\_IN + \beta_{10} GROWTH + \beta_{11} AGE + \beta_{12} OWNERSHIP \\
& + \beta_{13} BOARD\_SIZE + \beta_{14} BOARD\_CONFER + \beta_{15} CHAIR\_CEO \\
& + \beta_{16} FOREIGN + \beta_{17} BOARD\_INDEP + \beta_{18} MSHARE + \beta_{19} BOARD\_AUDIT \\
& + \beta_{20} BIG4 + \beta_{21} SPECIALIST + \beta_{22} IMPOR + \beta_{23} YEAR_{2004} + \beta_{24} YEAR_{2005} \\
& + \beta_{24} + i \sum_{i=1}^4 REGION_i + \beta_{28} + j \sum_{j=1}^{11} INDUSTRY_j + \varepsilon
\end{aligned} \tag{3}$$

Where:

$OPIN = 1$  if the auditor issues a modified audit opinion, and 0 otherwise and all other variables are defined as in Table 1.

### 3.2.1 Dependent Variable

$OPIN$  is the dependent variable of Models 2 and 3.

### 3.2.2 Experimental Variables

$RESTATE$  and  $RESTATE\_ORDER$  are the experimental variables of Models 2 and 3. If Hypotheses 2a and 2b are true, we expect that the coefficients of  $RESTATE$  and  $RESTATE\_ORDER$  in Model 2 will be significantly greater than 0. If Hypotheses 3a and 3b are true, we expect that the coefficients of  $RESTATE$  and  $RESTATE\_ORDER$  in Model 3 will not be significantly greater than 0.

### 3.2.3 Control Variables

Models 2 and 3 also contain a series of control variables. We control for audit opinions in the previous year ( $PREOPIN$ ) because audit opinions tend to persist. We control for client complexity ( $AR\_IN$ ) because material misstatement is more likely to happen when the company's business is very complicated.  $FOREIGN$  captures the possible influence of foreign shareholders. Model 3 also contains  $MISSTATE$ ,  $MISSTATE\_ORDER$ , and  $DA$  to control for information risk. The definitions of  $MISSTATE$  and  $MISSTATE\_ORDER$  are the same as in Model 1.  $DA$  is the measure of discretionary accruals calculated by the modified Jones model.<sup>9</sup> We use it to control for information risk without violating the Generally Accepted Accounting Principles (GAAP). In addition, Hribar and Nichols (2007) find that it is better to use the signed value of discretionary accruals rather than the absolute value for measuring earnings quality.

<sup>9</sup> In order to calculate  $DA$ , we also divide our sample into different industries according to the CSRC industry classification. The manufacturing industry is categorised at two levels while other industries are categorised at one level only. Moreover, we eliminate industries that have less than 30 observations.

The other control variables in Models 2 and 3 are the same as those in Model 1. In accordance with the extant literature, we expect the coefficients of *PREOPIN*, *LEVERAGE*, *LOSS*, *AR\_IN*, *AGE*, *BOARD\_SIZE*, *MISSTATE*, *MISSTATE\_ORDER*, and *DA* in Model 3 to be significantly positive and the coefficients of *LNASSET*, *ROA*, *SALE\_GROWTH*, *BOARD\_CONFER*, *CHAIR\_CEO*, *FOREIGN*, *BOARD\_INDEP*, *MSHARE*, *BOARD\_AUDIT*, *BIG4*, and *SPECIALIST* to be significantly negative. Because the effect of ultimate ownership and client importance on audit reporting decisions is not clear, we do not predict the sign of the coefficients of *OWNERSHIP* and *IMPOR*.

## IV. Sample Selection and Nature Judgment

### 4.1 Sample Selection

For Model 1, we include all listed companies of the Chinese A-share market between 2004 and 2006 in the Chinese Stock Market Analysis and Research (CSMAR) database developed by Shenzhen GTA IT Co., Ltd. After omitting financial observations and observations lacking data on companies' general characteristics, we obtain 3,661 company-year observations. Then, we search for companies that restate reported earnings through amendment announcements between 2004 and 2006 and define them as restatement companies. If a company only announces changes in accounting policy and accounting estimates, the use of new accounting standards, vocabulary, or printing errors, we do not consider it to be a restatement company.

Subsequently, we search for restatement companies through amendment announcements between 2005 and 2009. Then, among the identified companies, we search for companies that made misstatements between 2004 and 2006 and define them as misstatement companies. When we try to confirm the misstatement periods, some special cases are found. If the company does not disclose the misstatement period and only suggests that there are misstatements prior to a certain year, we consider the misstatement period to be the nearest year prior to the restatement year. For example, if, in 2006, a company discloses misstatements made prior to 2005, we consider the misstatement period to be 2004. If the company clearly discloses misstatements involving several fiscal years, we define all of them as misstatement periods.

When we collect misstatement samples, we find that a misstatement is more likely to be restated in the following year. The longer the time gap between the restatement period and the misstatement period, the less likely it is that prior misstatements are restated. In addition, after searching among the restatement announcements made in 2009, we only find 11 observations that restate misstatements made between 2004 and 2006. Based on the above findings, we believe that there are few misstatements made between 2004 and 2006 that are restated after 2009. It is effective for us to search misstatement samples between 2004 and 2006 by using restatement announcements made between 2005 and 2009. Of course, we do not exclude the special cases. We describe

this limitation in Section VII. Moreover, we also use the CSMAR database to search for punishment announcements of listed companies in order to verify the effectiveness of our sample collection method. We find 65 companies that restated prior misstatements between 2004 and 2006 through punishment announcements made between 2004 and 2011. They are all included in our sample. This further illustrates the effectiveness of our sample collection method.

Thus, our sample collection method yields 461 restatement samples and 410 misstatement samples from the 3,661 observations. We eliminate nine observations that lack corporate governance data; this yields 3,652 observations containing 460 restatement samples and 409 misstatement samples. Finally, we eliminate 53 observations that lack data on audit firm characteristics; this yields 3,599 observations containing 450 restatement samples and 404 misstatement samples.

For Model 2, we also include all listed companies of the Chinese A-share market between 2004 and 2006 in the CSMAR database. After eliminating financial observations and observations that lack data on companies' general characteristics, corporate governance characteristics, and audit firm characteristics, we finally obtain 3,828 company-year observations containing 470 restatement samples and 420 misstatement samples. The sample of Model 3 is the same as that of Model 2.

## 4.2 Nature Judgment

Using the approach of Graham *et al.* (2008) and Plumlee and Yohn (2010), the nature of restatements can be divided into three types by analysing the amendment announcements: earnings manipulation by the management, internal control deficiency, and the inadaptability of accounting standards.<sup>10</sup>

First, if restatement announcements suggest that prior misstatements were caused by the management's manipulation of earnings, we define the nature of these restatements as earnings manipulation by the management. The specific criteria are as follows: (1) "fraud", "manipulation", and other homologous words are found in restatement announcements; (2) the CSRC enforces actions or the tax authorities impose punishments related to the prior misstatements of restatement companies; (3) the prior misstatements of restatement companies are questioned or investigated by the State-owned Assets Supervision and Administration Commission (SASAC) of the State Council, the Ministry of Finance, the company's audit committee, independent directors, and other independent third parties; and (4) any news articles suggest that the prior misstatements of restatement companies were associated with earnings manipulation. If the restatement meets any one of the above criteria, it is classified as being a restatement caused by the management's

<sup>10</sup> Plumlee and Yohn (2010) divide the nature of restatements into four types, namely earnings manipulation of the management, internal control deficiency, business complexity, and the fuzziness of accounting standards. We combine business complexity and fuzziness of accounting standards into the inadaptability of accounting standards because all of these restatements are the result of the inadaptability between accounting standards and accounting practice.



manipulation of earnings.

Second, the nature of the restatement is classified as internal control deficiency if the disclosure suggests that a prior misstatement of the restatement company was due to “book or record deficiency” or to a simple misapplication of an accounting standard and the company’s disclosure does not suggest that the error was intentional or due to any notable characteristic of the accounting standard or the transaction.

Finally, the nature of the restatement is classified as the inadaptability of accounting standards if the disclosure suggests that the prior misstatement of the restatement company was related to the complexity of transactions and the vagueness of the accounting standards.<sup>11</sup>

Every restatement is analysed separately by the authors and by two auditors from a local audit firm. If there is any difference of opinion with regard to the nature of a restatement, we discuss it further until a consensus is reached. A financial restatement caused by the inadaptability of accounting standards is not related to the company; it just suggests that the corresponding accounting standards are not clear and perfect. A financial restatement caused by internal control deficiencies suggests that the company lacks management ability. A financial restatement caused by earnings manipulation indicates that the company’s morality is very weak. Therefore, the severity of the nature of the restatement increases from the inadaptability of accounting standards to internal control deficiencies and reaches its highest when the reason is earnings manipulation.

Similarly, the nature of a misstatement is categorised into three types. The criteria are the same as those for restatement. The only difference is in how the misstatement period is judged.

## V. Descriptive Statistics and Empirical Results

### 5.1 Descriptive Statistics

Table 2 provides the descriptive statistics of the variables of Models 1, 2, and 3. During the sample period, 25 per cent (9 per cent) of the restatement companies (non-restatement companies) are issued modified audit opinions and 24 per cent (9 per cent) of the restatement companies (non-restatement companies) made material misstatements.

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<sup>11</sup> If a restatement announcement suggests there are many prior misstatements and the nature of these prior misstatements is different, we choose the most serious nature. The percentage of this type of restatements is very low. Overall, 2.2 per cent of the restatements are attributed to this type in Models 1-4 and 1-5, while 2.5 per cent of the restatements are attributed to this type in Models 2-2 and 3-2. Moreover, the market pays more attention to the restatements that are of the most serious nature. Therefore, this method does not have a significant effect on our results. In addition, we apply the effect of prior misstatement on prior earnings to determine the nature of the restatement. Specially, we use the prior misstatement that affects prior earnings maximally to determine the nature of the restatement. Using this substitutive method, we re-examine the relationship between the nature of the restatement and material misstatement and the effect of the nature of restatement on audit opinions after controlling for information risk. The results of Models 1-4, 1-5, 2-2, and 3-2 do not change significantly. This suggests that our results are robust.

The result suggests that restatement companies are more likely to have material misstatements and to be issued with strict audit opinions. Meanwhile, the discretionary accruals of restatement companies are higher than those of non-restatement companies.

**Table 2** Descriptive Statistics

Variables	RESTATE = 1			RESTATE = 0			Difference Test	
	Mean	Media	Std.	Mean	Media	Std.	Mean	Media
<i>MISSTATE</i>	0.24	0.00	0.43	0.09	0.00	0.29	6.91***	9.02***
<i>OPIN</i>	0.25	0.00	0.43	0.09	0.00	0.28	7.84***	10.53***
<i>DA</i>	0.00	0.01	0.14	0.00	0.01	0.15	1.74**	2.55**
<i>PREOPIN</i>	0.19	0.00	0.40	0.08	0.00	0.27	6.25***	8.26***
<i>LNASSET</i>	21.19	21.15	0.96	21.28	21.21	1.00	-1.72**	-1.24
<i>LEVERAGE</i>	0.68	0.62	0.40	0.53	0.52	0.27	7.63***	9.22***
<i>ROA</i>	-0.02	0.01	0.12	0.01	0.03	0.10	-6.38***	-9.73***
<i>REVRATIO</i>	0.18	0.14	0.13	0.14	0.11	0.11	6.62***	6.94***
<i>STORATIO</i>	0.16	0.13	0.13	0.16	0.13	0.14	-0.76	-0.48
<i>LOSS</i>	0.25	0.00	0.43	0.12	0.00	0.33	6.13***	7.53***
<i>AGE</i>	2.93	3.00	0.56	2.79	2.83	0.64	4.75***	4.20***
<i>MERGER</i>	0.64	1.00	0.48	0.60	1.00	0.49	1.75**	1.72*
<i>FINANCING</i>	0.12	0.00	0.33	0.16	0.00	0.37	-2.53***	-2.31**
<i>AFFILIATE</i>	2.51	2.45	1.34	2.41	2.24	1.38	1.46*	2.22**
<i>SEGMENT</i>	1.89	2.00	0.53	1.89	1.73	0.54	0.14	0.37
<i>SALE_GROWTH</i>	0.12	0.09	0.50	0.22	0.16	0.49	-3.67***	-5.28***
<i>OWNERSHIP</i>	0.70	1.00	0.46	0.68	1.00	0.46	0.5	0.49
<i>BOARD_SIZE</i>	6.45	6.00	1.63	6.28	6.00	1.52	2.10**	1.96**
<i>BOARD_CONFER</i>	8.10	7.00	3.22	7.62	7.00	2.96	3.03***	3.25***
<i>CHAIR_CEO</i>	2.78	3.00	0.60	2.78	3.00	0.60	-0.09	-0.29
<i>BOARD_INDEP</i>	0.52	0.50	0.10	0.53	0.50	0.10	-3.05***	-2.16**
<i>MSHARE</i>	0.00	0.00	0.00	0.01	0.00	0.06	-10.10***	-0.6
<i>BOARD_AUDIT</i>	0.52	1.00	0.50	0.51	1.00	0.50	0.56	0.56
<i>FOREIGN</i>	0.06	0.00	0.24	0.07	0.00	0.26	-0.85	-0.81
<i>BIG4</i>	0.01	0.00	0.10	0.07	0.00	0.26	-9.13***	-4.97***
<i>SPECIALIST</i>	0.00	0.00	0.07	0.03	0.00	0.18	-6.28***	-3.31***
<i>IMPOR</i>	0.05	0.04	0.05	0.05	0.04	0.05	0.12	0.25

Note: Variable definitions are shown in Table 1. For the variables involved in Model 1, the overall number of observations is 3,599, which contain 450 restatement samples and 404 misstatement samples. For the variables only involved in Models 2 and 3, the overall number of observations is 3,828, which contain 470 restatement samples and 420 misstatement samples. To save space, we do not show the descriptive statistics results of *YEAR*, *REGION*, and *INDUSTRY*.

**Table 3** Financial Restatement and Material Misstatement: The Results of Logit Regression

Variables	Model 1-1		Model 1-2		Model 1-3	
	Coef.	Z-stat.	Coef.	Z-stat.	Coef.	Z-stat.
Intercept	-3.61***	-2.50	-3.05**	-2.00	-4.26***	-2.69
<i>RESTATE</i>	0.84***	6.29	0.81***	6.04	0.77***	5.70
<i>LNASSET</i>	0.01	0.11	-0.05	-0.70	0.01	0.08
<i>LEVERAGE</i>	0.41**	2.10	0.40**	2.02	0.40**	2.01
<i>ROA</i>	-1.06*	-1.81	-1.16**	-1.96	-1.19**	-1.99
<i>REVRATIO</i>	0.01	0.02	0.06	0.12	0.04	0.08
<i>STORATIO</i>	0.50	1.05	0.53	1.11	0.46	0.96
<i>LOSS</i>	0.34**	2.13	0.35**	2.20	0.36**	2.25
<i>AGE</i>	0.28***	2.66	0.26**	2.39	0.26**	2.37
<i>MERGER</i>	0.15	1.10	0.19	1.36	0.17	1.25
<i>FINANCING</i>	0.16	0.86	0.19	1.01	0.16	0.86
<i>AFFILIATE</i>	0.02	0.46	0.04	0.81	0.05	1.01
<i>SEGMENT</i>	0.16	1.48	0.16	1.52	0.13	1.23
<i>SALE_GROWTH</i>	-0.13	-1.05	-0.12	-0.99	-0.12	-0.96
<i>OWNERSHIP</i>			0.05	0.38	0.05	0.42
<i>BOARD_SIZE</i>			0.11***	2.94	0.12***	3.09
<i>BOARD_CONFER</i>			-0.03	-1.49	-0.03	-1.54
<i>CHAIR_CEO</i>			0.04	0.40	0.04	0.41
<i>BOARD_INDEP</i>			-0.17	-0.27	-0.09	-0.14
<i>MSHARE</i>			-3.07	-1.31	-3.02	-1.30
<i>BOARD_AUDIT</i>			0.15	1.31	0.16	1.47
<i>BIG4</i>					-0.94***	-2.47
<i>SPECIALIST</i>					-1.01*	-1.66
<i>IMPOR</i>					0.91	0.93
N	3661		3652		3599	
Pseudo R <sup>2</sup>	0.14		0.14		0.16	

Note: Variable definitions are shown in Table 1. \*\*\*, \*\*, and \* represent significance at less than 1%, 5%, and 10%, respectively. The dependent variable of Models 1-1, 1-2, and 1-3 is *MISSTATE*. To save space, we do not show the results of *YEAR*, *REGION*, and *INDUSTRY*.

Table 2 also shows that compared with non-restatement companies, restatement companies have higher *PREOPIN*, *LEVERAGE*, *REVRATIO*, *LOSS*, *AGE*, *MERGER*, *AFFILIATE*, *BOARD\_SIZE*, and *BOARD\_CONFER*. Meanwhile, restatement companies have lower *LNASSET*, *ROA*, *FINANCING*, *SALE\_GROWTH*, *BOARD\_INDEP*, *MSHARE*, *BIG4*, and *SPECIALIST* than non-restatement companies. In addition, certain differences exist in the companies' general characteristics, corporate governance characteristics, and audit firm characteristics for restatements of different nature. To save space, we do not describe the descriptive statistics of related variables.

## 5.2 Empirical Results

Table 3 reports the results of the relationship between restatement and material misstatement. The result of Model 1-1 shows that after controlling for companies' general characteristics, *RESTATE* is positively related to *MISSTATE* ( $P < 0.01$ ), as shown in Table 3. In Models 1-2 and 1-3, we control for the effect of corporate governance characteristics and audit firm characteristics step by step. The coefficient of *RESTATE* remains significantly positive at less than 1 per cent, suggesting that compared with non-restatement companies, restatement companies are more likely to make material misstatements. The results support Hypothesis 1a.

Subsequently, we further examine the relationship between the nature of restatement and material misstatement, and the empirical results are reported in Table 4. The result of Model 1-4 shows that *RESTATE\_ORDER* is positively related to *MISSTATE* at less than 1 per cent, as shown in Table 4. In Model 1-5, material misstatements are classified into three types based on their nature. We find that *RESTATE\_ORDER* remains positively correlated with *MISSTATE\_ORDER*. The results suggest that the more serious the nature of the restatement, the more likely it is that the restatement companies make material misstatements and the more serious the nature of the material misstatements is. The results in Table 4 support Hypothesis 1b.

Next, we examine the relationship between financial restatement and audit opinions, and the Logit results are shown in Table 5. The result of Model 2-1 in Table 5 shows that *RESTATE* is positively related to *OPIN* ( $P < 0.01$ ). This result suggests that compared with non-restatement companies, an auditor is more likely to issue a strict audit opinion to restatement companies; this supports Hypothesis 2a. In Model 2-2 in Table 5, restatements are classified into three types based on their nature. We find that *RESTATE\_ORDER* remains positively correlated with *OPIN*, suggesting that the more serious the nature of the restatement is, the more likely it is that the auditor will issue a strict audit opinion. The result supports Hypothesis 2b.

**Table 4** Nature of Restatement and Misstatement: The Results of Logit and Ologit Regressions

Variables	Model 1-4		Model 1-5	
	Coef.	Z-stat.	Coef.	Z-stat.
Intercept	-4.34***	-2.74		
<i>RESTATE_ORDER</i>	0.34***	5.47	0.34***	5.56
<i>LNASSET</i>	0.01	0.16	0.02	0.25
<i>LEVERAGE</i>	0.42**	2.11	0.40**	2.04
<i>ROA</i>	-1.16**	-1.94	-1.08*	-1.81
<i>REVRATIO</i>	0.04	0.07	0.17	0.33
<i>STORATIO</i>	0.43	0.90	0.46	0.96
<i>LOSS</i>	0.36**	2.25	0.36**	2.31
<i>AGE</i>	0.25**	2.31	0.27**	2.46
<i>MERGER</i>	0.18	1.31	0.18	1.32
<i>FINANCING</i>	0.17	0.88	0.16	0.87
<i>AFFILIATE</i>	0.05	0.99	0.04	0.83
<i>SEGMENT</i>	0.12	1.13	0.14	1.27
<i>SALE_GROWTH</i>	-0.12	-0.98	-0.11	-0.91
<i>OWNERSHIP</i>	0.05	0.41	0.06	0.45
<i>BOARD_SIZE</i>	0.12***	3.09	0.12***	3.15
<i>BOARD_CONFER</i>	-0.03	-1.49	-0.03*	-1.64
<i>CHAIR_CEO</i>	0.04	0.41	0.04	0.39
<i>BOARD_INDEP</i>	-0.09	-0.15	-0.21	-0.35
<i>MSHARE</i>	-3.10	-1.33	-3.06	-1.31
<i>BOARD_AUDIT</i>	0.17	1.49	0.17	1.51
<i>BIG4</i>	-0.95***	-2.50	-0.94***	-2.47
<i>SPECIALIST</i>	-1.02*	-1.68	-1.03*	-1.70
<i>IMPOR</i>	0.94	0.97	1.01	1.05
N		3599		3599
Pseudo R <sup>2</sup>		0.16		0.12

Note: Variable definitions are shown in Table 1. \*\*\*, \*\*, and \* represent significance at less than 1%, 5%, and 10%, respectively. The dependent variables of Models 1-4 and 1-5 are *MISSTATE* and *MISSTATE\_ORDER*, respectively in Table 4. To save space, we do not show the results of *YEAR*, *REGION*, and *INDUSTRY*.

**Table 5** Financial Restatement and Audit Opinions: The Results of Logit Regression

Variables	Model 2-1		Model 2-2	
	Coef.	Z-stat.	Coef.	Z-stat.
Intercept	-0.38	-0.19	-0.36	-0.18
<i>RESTATE</i>	0.71***	3.97		
<i>RESTATE_ORDER</i>			0.36***	4.55
<i>PREOPIN</i>	2.49***	13.36	2.50***	13.39
<i>LNASSET</i>	-0.22***	-2.51	-0.22***	-2.52
<i>LEVERAGE</i>	3.25***	9.69	3.24***	9.66
<i>ROA</i>	-0.80***	-6.44	-0.82***	-6.56
<i>AR_IN</i>	0.34	0.75	0.32	0.69
<i>LOSS</i>	0.39**	2.01	0.37**	1.94
<i>AGE</i>	0.12	0.84	0.11	0.77
<i>SALE_GROWTH</i>	-0.88***	-5.41	-0.87***	-5.39
<i>OWNERSHIP</i>	-0.47***	-3.01	-0.47***	-3.03
<i>BOARD_SIZE</i>	0.02	0.29	0.01	0.27
<i>BOARD_CONFER</i>	-0.01	-0.38	-0.01	-0.33
<i>CHAIR_CEO</i>	-0.12	-1.08	-0.12	-1.10
<i>BOARD_INDEP</i>	0.07	0.09	0.10	0.13
<i>MSHARE</i>	-1.20	-0.54	-1.23	-0.55
<i>BOARD_AUDIT</i>	-0.04	-0.25	-0.04	-0.25
<i>FOREIGN</i>	0.41	1.60	0.40	1.54
<i>BIG4</i>	0.87***	2.78	0.88***	2.82
<i>SPECIALIST</i>	-0.45	-0.80	-0.45	-0.79
<i>IMPOR</i>	-1.60	-0.84	-1.52	-0.80
N		3828		3828
Pseudo R <sup>2</sup>		0.46		0.46

Note: Variable definitions are shown in Table 1. \*\*\*, \*\*, and \* represent significance at less than 1%, 5%, and 10%, respectively. The dependent variable of Models 2-1 and 2-2 is *OPIN* in Table 5. To save space, we do not show the results of *YEAR*, *REGION*, and *INDUSTRY*.

Finally, we examine the relationship between restatement and audit opinions after controlling for the information risk of sample companies, and the Logit results are shown in Table 6. In Model 3-1 in Table 6, we use *MISSTATE* and *DA* to control for the information risk of sample companies and find that the coefficient of *RESTATE* is significantly positive at less than 1 per cent, suggesting that after controlling for the information risk of sample companies, the auditor is still more likely to issue a strict audit opinion to restatement companies. The results do not support Hypothesis 3a. In Model 3-2 in Table 6, we use *MISSTATE\_ORDER* and *DA* to control for the information risk of sample companies and find that the coefficient of *RESTATE\_ORDER* is significantly

positive at less than 1 per cent, suggesting that after controlling for the information risk of sample companies, the auditor is still more likely to issue a strict audit opinion against restatements that are of a serious nature. The results do not support Hypothesis 3b.

**Table 6** Financial Restatement and Audit Opinions: The Logit Regression Results after Controlling for Information Risk

Variables	Model 3-1		Model 3-2	
	Coef.	Z-stat.	Coef.	Z-stat.
Intercept	-0.72	-0.36	-0.71	-0.36
<i>RESTATE</i>	0.63***	3.46		
<i>RESTATE_ORDER</i>			0.33***	4.04
<i>MISSTATE</i>	0.66***	3.47		
<i>MISSTATE_ORDER</i>			0.32***	3.86
<i>DA</i>	1.41*	1.74	1.39*	1.71
<i>PREOPIN</i>	2.51***	13.42	2.53***	13.49
<i>LNASSET</i>	-0.21**	-2.36	-0.21**	-2.37
<i>LEVERAGE</i>	3.12***	9.11	3.12***	9.11
<i>ROA</i>	-0.79***	-6.28	-0.80***	-6.39
<i>AR_IN</i>	0.37	0.79	0.31	0.68
<i>LOSS</i>	0.34*	1.79	0.33*	1.71
<i>AGE</i>	0.11	0.77	0.10	0.67
<i>SALE_GROWTH</i>	-0.85***	-5.30	-0.84***	-5.24
<i>OWNERSHIP</i>	-0.47***	-3.00	-0.48***	-3.04
<i>BOARD_SIZE</i>	0.00	0.06	0.00	-0.02
<i>BOARD_CONFER</i>	0.00	-0.19	0.00	-0.09
<i>CHAIR_CEO</i>	-0.11	-1.01	-0.11	-1.00
<i>BOARD_INDEP</i>	0.08	0.10	0.13	0.17
<i>MSHARE</i>	-1.02	-0.46	-1.07	-0.48
<i>BOARD_AUDIT</i>	-0.03	-0.22	-0.04	-0.26
<i>FOREIGN</i>	0.43*	1.64	0.41	1.54
<i>BIG4</i>	0.90**	2.82	0.91***	2.89
<i>SPECIALIST</i>	-0.38	-0.68	-0.37	-0.65
<i>IMPOR</i>	-1.72	-0.90	-1.71	-0.89
N		3828		3828
Pseudo R <sup>2</sup>		0.47		0.47

Note: Variable definitions are shown in Table 1. \*\*\*, \*\*, and \* represent significance at less than 1%, 5%, and 10%, respectively. The dependent variable of Models 3-1 and 3-2 is *OPIN* in Table 6. To save space, we do not show the results of *YEAR*, *REGION*, and *INDUSTRY*.



Regarding the control variables of Model 1, as shown in Tables 3 and 4, the coefficients of *LEVERAGE*, *LOSS AGE*, and *BOARD\_SIZE* are significantly positive and the coefficients of *ROA*, *BIG4*, and *SPECIALIST* are significantly negative. As for the control variables of Models 2 and 3, as shown in Tables 5 and 6, the coefficients of *PREOPIN*, *LOSS*, *LEVERAGE*, and *BIG4* are significantly positive and the coefficients of *LNASSET*, *ROA*, *SALE\_GROWTH*, and *OWNERSHIP* are significantly negative. The results support our expectations for these control variables; the coefficients of the other control variables are not statistically significant.

## VI. Additional Tests

### 6.1 The Endogenous Nature of Restatement

As shown in the descriptive statistics, significant differences exist between restatement companies and non-restatement companies in terms of companies' general characteristics, corporate governance characteristics, and audit firm characteristics. There are also significant differences between restatements of different nature in terms of these factors. For our misstatement test, we conduct our analyses using the Heckman two-stage approach in order to control for the endogenous nature of restatement.

In the first stage regression, we construct a restatement model and a restatement nature model using all of the variables in the misstatement model and two instrumental variables. Lennox, Francis, and Wang (2012) suggest that researchers should choose instrumental variables carefully when constructing selection models. These selected instrumental variables must be highly correlated with the dependent variables of the first stage regression and, at the same time, should be insignificantly associated with the residual from a regression of the first stage on all exogenous variables. In this study, the first instrumental variable is *IVI*, which is an indicator variable set to 1 if the chairman or the CEO changes in the year prior to the restatement announcement and 0 otherwise. The second instrumental variable is *IV2*, which is an indicator variable set to 1 if the audit firm changes in the year prior to the restatement announcement and 0 otherwise. The change of audit firms includes both voluntary and mandatory changes. The new CEO, chairman of the board, and audit firm are more independent in respect of prior financial statements and are more likely to detect and correct misstatements made in prior periods. Moreover, the more serious the nature of the restatement is, the more likely it is that they will detect and correct misstatements made in prior periods. The result of the first-stage regressions suggests that these two instrumental variables are positively related to *RESTATE* and *RESTATE\_ORDER* at less than 1 per cent and 5 per cent, respectively. Meanwhile, these two instrumental variables are insignificantly associated with the residual from the regression of the misstatement model on all exogenous variables. Therefore, our Heckman two-stage regression models are relatively reliable based on these instrumental variables.

**Table 7** Restatement and Material Misstatement: Heckman Two-stage Regression Results

Variables	Model 1-1		Model 1-2		Model 1-3		Model 1-4		Model 1-5	
	Coef.	Z-stat.	Coef.	Z-stat.	Coef.	Z-stat.	Coef.	Z-stat.	Coef.	Z-stat.
Intercept	-3.39**	-2.32	-2.91*	-1.89	-4.20***	-2.62	-4.50***	-2.83		
RESTATE	1.28***	2.88	1.12**	2.39	0.88*	1.83				
RESTATE_ORDER							0.22*	1.75	0.25**	2.16
LNASSET	0.00	0.01	-0.05	-0.74	0.00	0.06	0.02	0.24	0.02	0.33
LEVERAGE	0.32	1.52	0.33	1.55	0.37*	1.72	0.46**	2.27	0.43**	2.13
ROA	-1.13*	-1.91	-1.21**	-2.03	-1.21**	-2.00	-1.12*	-1.88	-1.06*	-1.77
REVRATIO	-0.14	-0.26	-0.04	-0.07	0.00	0.01	0.13	0.24	0.24	0.45
STORATIO	0.51	1.07	0.54	1.12	0.46	0.96	0.47	0.98	0.50	1.04
LOSS	0.30*	1.80	0.32**	1.95	0.35**	2.11	0.39**	2.40	0.39**	2.41
AGE	0.27***	2.58	0.25**	2.33	0.26**	2.35	0.26**	2.38	0.27***	2.51
MERGER	0.15	1.07	0.19	1.36	0.17	1.25	0.18	1.30	0.18	1.34
FINANCING	0.16	0.86	0.19	1.01	0.16	0.87	0.16	0.86	0.16	0.85
AFFILIATE	0.02	0.37	0.04	0.75	0.05	0.98	0.05	1.02	0.04	0.84
SEGMENT	0.16	1.49	0.16	1.53	0.13	1.24	0.12	1.14	0.14	1.27
SALE_GROWTH	-0.11	-0.88	-0.11	-0.86	-0.11	-0.91	-0.13	-1.07	-0.12	-0.97
OWNERSHIP			0.04	0.32	0.05	0.40	0.05	0.41	0.06	0.43
BOARD_SIZE			0.11***	2.87	0.12***	3.05	0.12***	3.14	0.12***	3.18
BOARD_CONFER			-0.03	-1.58	-0.03	-1.55	-0.03	-1.39	-0.03	-1.57
CHAIR_CEO			0.04	0.39	0.04	0.41	0.04	0.45	0.04	0.42
BOARD_INDEP			-0.11	-0.18	-0.07	-0.11	-0.15	-0.24	-0.26	-0.42
MSHARE			-3.13	-1.33	-3.04	-1.31	-3.00	-1.29	-2.98	-1.27
BOARD_AUDIT			0.14	1.29	0.16	1.45	0.17	1.49	0.17	1.51
BIG4					-0.93**	-2.44	-0.96***	-2.53	-0.94***	-2.48
SPECIALIST					-0.99*	-1.64	-1.03*	-1.70	-1.04*	-1.72
IMPOR					0.92	0.94	-0.08	-0.05	0.04	0.03
IMR	-0.21	-1.05	-0.14	-0.69	-0.05	-0.25	0.13	0.89	0.09	0.63
VIF										
RESTATE	6.98		7.41		7.53					
RESTATE_ORDER							6.13		6.13	
IMR	6.61		6.99		7.07		5.76		5.76	
N	3661		3652		3599		3599		3599	
Pseudo R <sup>2</sup>	0.14		0.14		0.16		0.16		0.12	

Note: Variable definitions are shown in Table 1. \*\*\*, \*\*, and \* represent significance at less than 1%, 5%, and 10%, respectively. The dependent variables of Models 1-1 to 1-4 and Model 1-5 are respectively *MISSTATE* and *MISSTATE\_ORDER* in Table 7. To save space, we do not show the results of *YEAR*, *REGION*, and *INDUSTRY*.

In the second stage, we estimate Models 1-1 to 1-3 and include the inverse Mills ratio (IMR) obtained from the restatement model. Meanwhile, we estimate Models 1-4 and 1-5 and include the IMR obtained from the restatement nature model. We report the second-stage results in Table 7. The results do not change significantly, and they support Hypotheses 1a and 1b.

Because the results of selection models are very sensitive to the particular specialisations of the model, Lennox, Francis, and Wang (2012) suggest that researchers should change the specialisations of the model and test the robustness of the results. Therefore, in the restatement model and the restatement nature model, we only include the general characteristics of companies used in the misstatement model. The change in model specialisations does not affect the empirical results significantly. In addition, we only include the companies' general characteristics and corporate governance characteristics of the misstatement model in the restatement model and restatement nature model. This change in model specialisations also does not affect the empirical results significantly.

Because the results of selection models are vulnerable to multicollinearity, Lennox, Francis, and Wang (2012) suggest that researchers should report a diagnosis of multicollinearity. Thus, we report the variance inflation factor (VIF) of *RESTATE*, *RESTATE\_ORDER*, and *IMR* in Models 1-1 to 1-5. We find that the VIFs of *RESTATE*, *RESTATE\_ORDER*, and *IMR* are less than 10 in Models 1-1 to 1-5. The result suggests that multicollinearity does not exist in our selection models.

According to the above analysis, our selection models are relatively effective. In addition, the results of the selection models further support our hypotheses. Because the coefficients of the IMRs are not significantly negative or positive, endogenous problems may not exist in financial restatements.

## 6.2 The Measure of Information Risk

To test the information risk of restatement, we mainly use material misstatement to measure the information risk of sample companies. However, in the test of auditors' cognition of the information risk of restatement, we further control for the information risk of sample companies by using discretionary accruals. Do restatement companies have higher discretionary accruals than non-restatement companies? The answer to this question will help us to further understand the information risk of restatement in the restatement period. Following Francis and Wang (2008), we construct the following model to test the information risk of restatement in the restatement period:

$$\begin{aligned}
 DA = & \beta_0 + \beta_1 \text{RESTATE/RESTATE\_ORDER} + \beta_2 \text{LNSALE} + \beta_3 \text{CFO} \\
 & + \beta_4 \text{LEVERAGE} + \beta_5 \text{LOSS} + \beta_6 \text{SALE\_GROWTH} \\
 & + \beta_7 \text{PPE\_GROWTH} + \beta_8 \text{OWNERSHIP} + \beta_9 \text{BOARD\_SIZE} \\
 & + \beta_{10} \text{BOARD\_CONFER} + \beta_{11} \text{CHAIR\_CEO} + \beta_{12} \text{BOARD\_INDEP} \\
 & + \beta_{13} \text{MSHARE} + \beta_{14} \text{BOARD\_AUDIT} + \beta_{15} \text{BIG4} + \beta_{16} \text{SPECIALIST} \\
 & + \beta_{17} \text{IMPOR} + \beta_{18} \text{YEAR}_{2004} + \beta_{19} \text{YEAR}_{2005} + \beta_{19} + i \sum_{i=1}^4 \text{REGION}_i \\
 & + \beta_{23} + j \sum_{j=1}^{11} \text{INDUSTRY}_j + \varepsilon
 \end{aligned} \tag{4}$$

Where:

*LNSALE* = the natural logarithm of the company's total sales;

*CFO* = the company's cash flow from operations divided by total assets;

*PPE\_GROWTH* = the ratio of fixed assets growth;

and all other variables are defined as in Model 1.

**Table 8** Financial Restatement and Discretionary Accruals: The Results of OLS Regression

Variables	Model 4-1		Model 4-2		Model 4-3	
	Coef.	T-stat.	Coef.	T-stat.	Coef.	T-stat.
Intercept	0.239***	7.41	0.252***	7.00	0.273***	7.33
<i>RESTATE</i>	0.082***	4.47	0.075***	3.96	0.071***	3.73
<i>LNSALE</i>	-0.010***	-6.57	-0.010***	-5.88	-0.011***	-6.19
<i>CFO</i>	-0.266***	-7.87	-0.266***	-7.86	-0.267***	-7.87
<i>LEVERAGE</i>	0.106***	12.62	0.105***	12.42	0.105***	12.43
<i>LOSS</i>	0.011*	1.76	0.011*	1.71	0.010	1.59
<i>SALE_GROWTH</i>	0.003	0.81	0.003	0.79	0.004	0.93
<i>PPE_GROWTH</i>	0.001	0.37	0.001	0.38	0.001	0.41
<i>OWNERSHIP</i>			0.002	0.45	0.002	0.42
<i>BOARD_SIZE</i>			-0.002	-1.60	-0.002*	-1.72
<i>BOARD_CONFER</i>			0.000	-0.42	0.000	-0.46
<i>CHAIR_CEO</i>			-0.003	-0.89	-0.003	-0.90
<i>BOARD_INDEP</i>			0.003	0.15	0.001	0.07
<i>MSHARE</i>			0.015	0.40	0.015	0.40
<i>BOARD_AUDIT</i>			-0.007*	-1.81	-0.007*	-1.90
<i>BIG4</i>					-0.017**	-2.15
<i>SPECIALIST</i>					0.004	0.31
<i>IMPOR</i>					-0.024	-0.63
N	3898		3889		3828	
Adjusted R <sup>2</sup>	0.21		0.21		0.21	

Note: Variable definitions are shown in Table 1. \*\*\*, \*\*, and \* represent significance at less than 1%, 5%, and 10%, respectively. The dependent variable of Models 4-1 to 4-3 is *DA* in Table 8. To save space, we do not show the results of *YEAR*, *REGION*, and *INDUSTRY*.

The results of the relationship between restatement and discretionary accruals are reported in Table 8. The coefficient of *RESTATE* is significantly positive at less than 1 per cent. The result suggests that restatement companies have higher information risk. We further classify restatements into three types according to their nature, and the result is reported in Table 9. The coefficient of *RESTATE\_ORDER* is significantly positive at less than 5 per cent. This result suggests that the more serious the nature of restatement, the higher the information risk. These results further support Hypotheses 1a and 1b.

**Table 9** Nature of Restatement and Discretionary Accruals: The Results of OLS Regression

Variables	Model 4-4		Model 4-5		Model 4-6	
	Coef.	T-stat.	Coef.	T-stat.	Coef.	T-stat.
Intercept	0.245***	7.57	0.255***	7.08	0.279***	7.47
<i>RESTATE_ORDER</i>	0.015***	2.54	0.013**	2.17	0.012**	2.03
<i>LNSALE</i>	-0.010***	-6.69	-0.010***	-5.88	-0.011***	-6.27
<i>CFO</i>	-0.265***	-7.83	-0.266***	-7.84	-0.267***	-7.86
<i>LEVERAGE</i>	0.098***	12.05	0.098***	11.94	0.098***	12.01
<i>LOSS</i>	0.007	1.17	0.007	1.17	0.007	1.07
<i>SALE_GROWTH</i>	0.005	1.20	0.005	1.15	0.005	1.28
<i>PPE_GROWTH</i>	0.002	0.46	0.002	0.46	0.002	0.49
<i>OWNERSHIP</i>			0.001	0.31	0.001	0.29
<i>BOARD_SIZE</i>			-0.002***	-1.76	-0.003*	-1.90
<i>BOARD_CONFER</i>			-0.001	-0.82	-0.001	-0.85
<i>CHAIR_CEO</i>			-0.003	-0.92	-0.003	-0.92
<i>BOARD_INDEP</i>			0.009	0.44	0.007	0.33
<i>MSHARE</i>			0.015	0.40	0.015	0.41
<i>BOARD_AUDIT</i>			-0.007*	-1.91	-0.007**	-2.00
<i>BIG4</i>					-0.019**	-2.34
<i>SPECIALIST</i>					0.005	0.47
<i>IMPOR</i>					-0.022	-0.57
N	3898		3889		3828	
Adjusted R <sup>2</sup>	0.20		0.21		0.21	

Note: Variable definitions are shown in Table 1. \*\*\*, \*\*, and \* represent significance at less than 1%, 5%, and 10%, respectively. The dependent variable of Models 4-4 to 4-6 is *DA* in Table 9. To save space, we do not show the results of *YEAR*, *REGION*, and *INDUSTRY*.

### 6.3 The Classification of Audit Opinions

In the above examination, we only classify audit opinions into modified opinions and unmodified opinions and do not consider the differences among different modified opinions. Here, we further classify audit opinions into five types in order to validate and extend our hypotheses. The dependent variable *OPIN\_ORDER* is coded from 0 to 4 for clean, unqualified with explanatory notes, qualified, qualified with explanatory notes, and disclaimed/adverse opinions, respectively.

**Table 10** Financial Restatement and Audit Opinions: The Results of Ologit Regression

Variables	Model 2-1		Model 2-2		Model 3-1		Model 3-2	
	Coef.	Z-stat.	Coef.	Z-stat.	Coef.	Z-stat.	Coef.	Z-stat.
<i>RESTATE</i>	0.60***	3.88			0.52***	3.34		
<i>RESTATE_ORDER</i>			0.32***	4.60			0.28***	3.99
<i>MISSTATE</i>					0.68***	4.10		
<i>MISSTATE_ORDER</i>							0.33***	4.53
<i>DA</i>					2.15***	3.30	2.16***	3.34
<i>PREOPIN</i>	2.16***	13.19	2.16***	13.16	2.20***	13.40	2.20***	13.41
<i>LNASSET</i>	-0.10	-1.28	-0.10	-1.30	-0.09	-1.11	-0.08	-1.08
<i>LEVERAGE</i>	1.66***	10.49	1.67***	10.51	1.50***	9.27	1.50***	9.30
<i>ROA</i>	-0.43***	-4.65	-0.44***	-4.81	-0.46***	-4.95	-0.47***	-5.06
<i>AR_IN</i>	0.89**	2.34	0.86**	2.26	0.91**	2.37	0.88**	2.29
<i>LOSS</i>	0.58***	3.57	0.58***	3.57	0.51***	3.12	0.52***	3.20
<i>AGE</i>	0.06	0.49	0.05	0.39	0.06	0.43	0.04	0.28
<i>SALE_GROWTH</i>	-1.09***	-7.01	-1.09***	-7.00	-1.03***	-6.73	-1.04***	-6.77
<i>OWNERSHIP</i>	-0.49***	-3.61	-0.50***	-3.65	-0.49***	-3.60	-0.50***	-3.64
<i>BOARD_SIZE</i>	-0.02	-0.34	-0.02	-0.35	-0.02	-0.51	-0.03	-0.59
<i>BOARD_CONFER</i>	0.01	0.40	0.01	0.40	0.01	0.57	0.01	0.62
<i>CHAIR_CEO</i>	-0.11	-1.13	-0.11	-1.11	-0.08	-0.83	-0.07	-0.76
<i>BOARD_INDEP</i>	0.30	0.43	0.34	0.49	0.28	0.41	0.35	0.51
<i>MSHARE</i>	-1.86	-0.85	-1.90	-0.87	-1.65	-0.76	-1.70	-0.78
<i>BOARD_AUDIT</i>	0.00	-0.01	0.00	-0.04	0.00	0.02	0.00	0.00
<i>FOREIGN</i>	0.24	1.01	0.23	0.97	0.26	1.08	0.24	0.99
<i>BIG4</i>	0.76***	2.57	0.77***	2.61	0.82***	2.75	0.83***	2.78
<i>SPECIALIST</i>	-0.41	-0.77	-0.41	-0.76	-0.36	-0.66	-0.34	-0.63
<i>IMPOR</i>	-1.48	-0.88	-1.42	-0.85	-1.69	-1.00	-1.70	-1.01
N	3828		3828		3828		3828	
Pseudo R <sup>2</sup>	0.32		0.32		0.33		0.33	

Note: Variable definitions are shown in Table 1. \*\*\*, \*\*, and \* represent significance at less than 1%, 5%, and 10%, respectively. The dependent variable of Models 2-1, 2-2, 3-1, and 3-2 is *OPIN\_ORDER* in Table 10. To save space, we do not show the results of *YEAR*, *REGION*, and *INDUSTRY*.

Table 10 reports the Ologit regression results for audit opinions. In Table 10, the results of Models 2-1 and 2-2 show that the coefficients of *RESTATE* and *RESTATE\_ORDER* are significantly positive at less than 1 per cent. These results suggest that auditors will react to the information risk of restatement through modified audit opinions and, meanwhile, will issue stricter modified audit opinions when the nature of the restatement is more serious. These results further support Hypotheses 2a and 2b. The results of Models 3-1 and 3-2 show that after controlling for information risk, the coefficients of *RESTATE* and *RESTATE\_ORDER* are still significantly positive at less than 1 per cent and do not support Hypotheses 3a and 3b.

#### 6.4 Other Robustness Checks

In addition to the above sensitivity test, we also perform the following robustness checks:

(1) We limit our sample to restatement companies and introduce four variables into Models 1-4, 1-5, 2-2, and 3-2 in order to control for the impact of financial restatement on net income (*ABRATIO*), the direction of this impact on net income (*DIRECT*), the importance of accounting issues (*CORE*), and the number of transactions (*NUM*) involved in the restatement. Following Palmrose and Scholz (2004), we compute *ABRATIO* by subtracting restated net income from originally reported income and scaling the absolute value of the difference by the total assets reported at the year-end immediately prior to the announcement of restatement. *DIRECT* is an indicator variable set to 1 if the restatement decreases the reported earnings and 0 otherwise. *CORE* is an indicator variable set to 1 if the restatement involves core accounting issues and 0 otherwise.<sup>12</sup> *NUM* is an indicator variable set to 1 if the number of transactions involved in the restatement is more than three and 0 otherwise. The results further support Hypotheses 1b and 2b and do not support Hypothesis 3b.

(2) The difference in samples among the models originates from *SEGMENT*, which is involved in Model 1. In order to control for the effect of sample on the empirical results, we eliminate *SEGMENT* in Model 1. We find that the results of Models 1-1 to 1-5 do not change significantly. In addition, we introduce *SEGMENT* into Models 2 and 3. We find that the results of Models 2-1, 2-2, 3-1, and 3-2 do not change significantly either.

(3) In order to further control for the endogeneity problem of restatement, we use the Heckman two-stage model to test an auditor's reaction to restatement. This method is consistent with the above Heckman two-stage models. The two instrumental variables are positively related to *RESTATE* and *RESTATE\_ORDER* at less than 1 per cent and 5 per cent, respectively. Meanwhile, these two instrumental variables are insignificantly

<sup>12</sup> According to Palmrose and Scholz (2004), core restatements are defined as restatements involving prime operating revenue, prime operating cost, and operating expenses.



associated with the residual from the regressions of the audit opinion model on all exogenous variables. Therefore, our Heckman two-stage regression model is relatively reliable based on these instrumental variables. The results of the Heckman two-stage regression further support Hypotheses 2a and 2b and do not support Hypotheses 3a and 3b. Moreover, the coefficients of the IMRs are not significantly negative or positive. This further suggests that endogenous problems may not exist in financial restatements.

(4) In order to mitigate the impact of extreme values, all of the continuous independent variables in Models 1, 2, and 3 are winsorised at the 1st and 99th percentiles. The results of Models 1, 2, and 3 do not change significantly.

(5) In order to control for the impact of regression method, we conduct Probit regression analysis for Models 1, 2, and 3. The distribution functions are different between Logit and Probit: the former assumes that random variables obey the logic probability distribution; the latter assumes that random variables obey normal distribution. The results do not change remarkably as a result of using the Probit regression method.

## VII. Conclusions

Regulatory agencies and academics have been focusing on the economic consequences of financial restatement. However, there is currently no research that has examined the issue of whether these economic consequences originate from the rational judgment or the irrational perception of the market. Using the perspective of auditors, this paper tries to answer this basic academic question and produces three main findings. First, financial restatement companies are more likely to make material misstatements than non-restatement companies, and the more serious the nature of the financial restatement is, the more likely it is that the financial reporting contains material misstatements; meanwhile, the severity of the material misstatements is also higher. Second, auditors are more likely to issue a strict audit opinion for restatement companies, and the more serious the nature of the restatement is, the more likely it is that the auditor will issue a strict audit opinion. Third, after controlling for information risk, the risk response of auditors to restatement companies does not change significantly. Our results are still robust after we consider the effect of the endogenous nature of restatement, the measure of information risk, the classification of audit opinions, sample selection, extreme values, and the regression method.

These results suggest that (1) financial restatement does mean that a company has a higher information risk, and the nature of the restatement is an important determinant of the severity of the information risk; and (2) the auditor can, in part, rationally identify the information risk of restatement in the restatement period, but his/her cognition of the information risk of restatement is, in part, irrational. Given all of these findings, we can reach the following conclusion: the capital market's cognition of the information risk of restatement is based on both rational judgments and irrational perceptions.

This paper not only expands the research fields on the economic consequences of restatement but also further clarifies the mechanism of the economic consequences of restatement and fills the gap in the theoretical research. In addition, this paper further expands the audit risk assessment and management research by examining auditors' risk response to client reputation, which is measured by restatement.

The conclusions of this paper also have certain implications for regulatory agencies, audit firms, and researchers. With regard to regulatory agencies, first, restatement not only suggests that the quality of reported financial statements is low but also means that restatement companies have higher information risk in the restatement period. So, with regard to the direction of regulation, regulators should de-emphasise the role of the restatement prompter, strengthen the monitoring of information risk in the restatement period, and change the regulatory direction from prompting restatement to preventing restatement.

Second, the causes of financial restatement include earnings manipulation, internal control deficiency, and the inadaptability of accounting standards. The severity of the information risk depends on the cause of the restatement. So, with regard to regulatory strategies, regulators should understand thoroughly the underlying causes of restatement and develop pertinent measures.

Finally, the capital market's cognition of the information risk of restatement is based on both rational judgments and irrational perceptions, and the cognitive bias mainly stems from the information asymmetry between restatement companies and other market participants. Although the CSRC issued a disclosure rule of restatement in 2003, actual disclosure quality is not very good. So, in respect of the regulation method, regulators should issue clear guidelines on the information disclosure of restatement and further standardise the time, content, and format of restatement announcements to enhance the transparency of restatements.

With regard to audit firms, an auditor cannot fully rationally identify the information risk of restatement in the restatement period. As important participants and information intermediaries in the capital market, auditors cannot transfer valuable signals to the market through audit-reporting behaviour as this may further increase the cognitive bias of the market and have a negative effect on market efficiency. So, audit firms should further improve auditors' ability to evaluate risk in order to play the external governance role well. Specific measures include strengthening the implementation of risk-oriented auditing standards, encouraging innovations in internal quality control, strictly limiting the adverse effect of economic ties and personal relationships between the audit firm and the client on audit quality, and actively constructing CPA reputation and cultural constraints mechanisms to enhance the ability of auditors to identify and respond to information risk.

For audit firms, the causes of restatement are very complicated and the severity of information risk depends on the nature of the restatement. So researchers should be

more cautious when they use financial restatement as a surrogate variable for earnings manipulation and the quality of financial reporting.

Although this paper makes certain academic contributions and has practical implications, it also has some limitations. First, we mainly use publicly known information to judge the nature of restatements and are unable to obtain private information to examine its validity. Second, we search for our sample of material misstatements made between 2004 and 2006 using restatement announcements made between 2005 and 2009. This method cannot identify misstatement samples from between 2004 and 2006 that are restated after 2009. Third, following Lennox, Francis, and Wang (2012), we analyse the validity of selection models and their results, but we still cannot exclude the influence of subjective factors on the selection of instrumental variables and model specifications. Finally, we examine auditors' risk response to restatement in view of their audit opinions and do not consider other possible risk management strategies. These aspects need to be improved by further research.

## References

Please refer to pp. 29-32.