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独立董事、审计委员会与审计意见[1]
—来自中国证券市场的证据

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摘要

本文研究了独立董事、审计委员会与审计意见之间的关系。研究发现，在不存在终极控制人绝对控股的公司和审计任期短的公司，独立董事比例与公司综合业绩的交互项和非标准意见呈负相关关系，独立董事比例与盈余管理的交互项与非标准意见呈正相关关系。这一方面说明，随着独立董事比例的提高，审计师变得更加谨慎，在公司业绩下降时，以及对有盈余管理的公司，出具非标准意见的概率进一步增加；另一方面说明，独立董事只有在不存在终极控制人绝对控股的公司才能发挥作用，独立董事对审计任期短的审计师产生的作用显著。但本文并未发现审计委员会对审计师的报告行为有显著影响。

关键词：独立董事，审计委员会，审计意见

一、引言

我国上市公司的治理结构，早期是模仿德国监事会治理模式，在公司建立监事会制度，监事会具有行使检查公司财务、对公司董事经理执行公司职务时

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违反法律、法规或者公司章程的行为进行监督、提名召开临时股东大会等职权，但是在实际的运行中发现，监事会并没有发挥预期的监督作用。因此，在2001年8月，中国证监会发布了《关于在上市公司建立独立董事制度的指导意见》（后简称《指导意见》），建立独立董事制度。该《指导意见》规定：上市公司应当建立独立董事制度，聘任适当人员担任独立董事，其中至少包括一名会计专业人士（会计专业人士是指具有高级职称或注册会计师资格的人士）。在2002年6月30日前，董事会成员中应当至少包括2名独立董事；在2003年6月30日前，上市公司董事会成员中应当至少包括三分之一独立董事。独立董事应当独立履行职责，不受上市公司主要股东、实际控制人、或者其他与上市公司存在利害关系的单位或个人的影响。上市公司应赋予独立董事以下特别职权：（1）重大关联交易；（2）向董事会提议聘用或解聘会计师事务所；（3）向董事会提请召开临时股东大会；（4）提议召开董事会；（5）独立聘请外部审计机构和咨询机构；（6）可以在股东大会召开前公开向股东征集投票权。

2002年1月，证监会和原国家经贸委又联合发布了《上市公司治理准则》（后简称《治理准则》），《治理准则》规定“上市公司董事会可以按照股东大会的有关决议，设立战略、审计、提名、薪酬与考核等专门委员会。专门委员会成员全部由董事组成，其中审计委员会、提名委员会、薪酬与考核委员会中独立董事应占多数并担任召集人，审计委员会中至少应有一名独立董事是会计专业人士。”要求设立的审计委员会行使下列职责：（1）提议聘请或更换外部审计机构；（2）监督公司的内部审计制度及其实施；（3）负责内部审计与外部审计之间的沟通；（4）审核公司的财务信息及其披露；（5）审查公司的内控制度。

《指导意见》和《治理准则》的颁布与实施，使中国上市公司的治理结构发生了重大变化，上市公司陆续根据《指导意见》的要求和《治理准则》的建议设立独立董事和审计委员会，建立了类似英美国家上市公司的内部治理结构。上市公司治理结构的重大变化，是否影响审计师的报告行为？这是本文拟研究的话题。

本文以2002年至2004年间的3271家样本公司为研究对象，研究了独立董事、审计委员会对审计师报告行为的影响。研究结果表明，在不存在超强控股股东的公司，独立董事对审计师的报告行为有显著影响，在公司业绩下降时，随着独立董事比例的提高，审计师出具非标准意见的概率进一步增加；公司存在盈余管理行为时，随着独立董事比例的提高，审计师出具非标准意见的概率也进一步增加。而且研究还发现，独立董事只对审计任期短的审计师产生了正面作用。

二、研究问题

独立董事比例是董事会独立性高低的标志，审计委员会则被认为是董事会专业性的表现，[4]董事会作用的发挥在很大程度上依赖于其独立性和专业性，因此，从理论上分析，独立董事比例的提高，以及审计委员会的设立可以改善董事会的治理效果。不少经验文献也表明，独立董事比例的提高增强了董事会的独立性，强化了对管理层的监督，公司进行盈余管理的可能性下降（Xie *et al.*, 2003; Dechow *et al.*, 1996; Klein, 2002），减少了公司舞弊的概率（Beasley, 1996; Beasley *et al.*, 2000）。有设立审计委员会的公司，更不可能参与盈余管理（Xie *et al.*, 2003），进行舞弊和违反法规的概率也更低（McMullen, 1996）。

外部审计是公司的重要外部治理机制，与作为内部治理机制的董事会之间存在密切关系，董事会可以借助外部审计来强化对管理层信息披露行为的监督，而外部审计师也可以通过与独立董事、审计委员会等的沟通来获得董事会对其审计行为的支持。国外不少文献研究了独立董事、审计委员会等对外部审计的影响。Carcello *et al.*（2002）研究了独立董事与审计费用的关系，他们的研究发现，独立董事比例与审计费用之间存在显著的正相关关系，独立董事为了维护其声誉资本，避免法律诉讼和保护股东利益，希望购买高质量的审计服务，并为审计师提供额外的审计服务支付溢价。Beasley and Petroni（2001）研究了董事会独立性和审计师选择之间的关系，他们的研究发现，独立董事比例高的公司选择行业专长的”六大”审计师的概率更高。Abbott *et al.*（2003a）和 Abbott *et al.*（2003b）研究了审计委员会对审计收费的影响，Abbott *et al.*（2003a）发现，审计委员会由独立董事组成而且每年至少召开四次会议的公司有显著低的非审计服务费用比率，Abbott *et al.*（2003b）发现，审计委员会的独立性、审计委员会的财务专长与支付的审计费用呈正相关关系。一些文献也直接研究了审计委员会对审计师决策的支持态度，这些文献的研究结果表明，在审计师与管理层发生分歧时，审计委员会更倾向于支持审计师的决定（Knapp, 1987; DeZoort *et al.*, 2003a），审计委员会对审计师能够提供定量化的、给出结果倾向和精确计量的重要性判断提供更大的支持（DeZoort *et al.*, 2003b）。此外，还有文献发现，审计委员会由独立董事构成并且每年至少召开两次会议的公司更可能聘请具有行业专长的审计师（Abbott and Parker, 2000），独立性高的审计委员会可以减少潜在的审计风险，降低审计师辞聘的可能性，而且能够保证后续审计师的质量（Lee *et al.*, 2004），审计委员会独立性强的财务困境公司，也更

[4] 董事会往往下设薪酬委员会、战略委员会、提名委员会、审计委员会等专业委员会，这些委员会的设立往往体现了董事会的工作中的专业分工情况，审计委员会的设立体现了公司在财务报告监督方面的专长。

可能收到审计师出具的持续经营的非清洁审计意见（Carcello and Neal, 2000），在第一次收到持续经营的审计意见后也更不可能解聘审计师（Carcello and Neal, 2003）。上述文献的研究结果说明，独立董事、审计委员会对外部审计师的审计收费、审计意见，以及审计师的聘请和辞聘等具有重要影响。

我国上市公司引入独立董事、审计委员会后，也可能对审计师的报告行为等产生影响。从理论上来说，首先，独立董事、审计委员会的有效引入，可增加董事会的独立性和专业性，提高董事会的监督治理功能，一方面可减少控股股东和管理层对审计师的压力，另一方面通过直接与外部审计师的沟通，加强对审计师报告行为的监督，有望提高审计师的审计独立性和执业谨慎性，使审计师更加客观公正地出具审计意见。其次，与此相反，审计师也可能因为独立董事、审计委员会引入上市公司，认为公司治理风险和盈余操纵风险下降，降低对公司重大错报风险的评估水平，采取更高的可接受检查风险，而且独立董事的引入也增加了风险分担对象，[5]在这种情况下，反而使审计师降低了执业谨慎性。那么独立董事、审计委员会的设立究竟是提高了审计师的谨慎性还是降低了审计师的谨慎性成为一个实证问题。

在研究独立董事、审计委员会对外部审计的影响时，有的文献选择了一些特定的“问题”公司作为研究样本，如Carcello and Neal（2000）选择了财务困境公司作为研究样本，Carcello and Neal（2003）选择了被审计师出具持续经营意见的公司作为研究样本，Beasley（1996）和Abbott *et al.*（2004）则分别选择了舞弊公司和财务报表重述的公司进行研究。在中国证券市场上，较难确定与上述文献类似的样本公司。[6]但过去的研究表明，审计师发表审计意见时对公司业绩和盈余管理敏感，公司业绩上升时，出具非标准意见的概率降低，盈余管理的公司，被出具非标准意见的概率更高（Sundgren, 1998; Chen *et al.*, 2001; 章永奎和刘峰，2002）。如果独立董事比例高的公司，或是有设立审计委员会的公司，可以提高审计师的谨慎性，那么，当公司业绩下降，以及存在盈余管理行为时，

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5 独立董事主要是由经济学家、社会名人、离任和退休的政府官员以及知名企业的老总担任，审计师也可预期独立董事的引入会增加公司出现问题时进行游说化解处罚危机的力量。而审计师被处罚往往与上市公司被处罚联系在一起，如果上市公司未受到监管部门的处罚，审计师也可避免受罚。

6 中国证券市场上存在有持续经营危机的公司，但中国上市公司绝大部分为国有控股，政府通过政府补贴和国有银行贷款等方式对具有持续经营危机的公司进行支持，使得真正发生退市的公司少，目前尚缺乏一个有效的方法判断哪些公司存在持续经营危机。而在设立独立董事、审计委员会后或者说本文的研究区间内（2002至2004年）被证监会因财务舞弊进行公开处罚的公司少，以及因财务问题进行报表重述的公司少，故而难以获得类似过去文献的研究样本。

审计师出具非标准意见的概率就会进一步增加。相反，如果独立董事比例的提高，或是设立审计委员会将使审计师的谨慎性下降，那么，当公司业绩下降，以及存在盈余管理行为时，审计师出具非标准意见的概率就会有所下降。因此，本文可通过考察审计师对公司业绩和盈余管理的敏感性受独立董事、审计委员会影响程度的高低，研究独立董事、审计委员会对审计师报告决策行为的影响。

当上市公司由一个大股东绝对控股时，大股东有能力选举董事会多数董事甚至全部董事，在这种情况下，大股东利用控股地位几乎完全支配董事会，在公司治理和运营中形成超强控制（上海证券交易所研究中心，2004），这些公司的独立董事、审计委员会对审计师报告行为的影响可能因大股东控制而受到牵制，也就是说，存在大股东超强控制的公司，独立董事、审计委员会很难发挥作用，所以预期只有在不存在控股股东超强控制的公司，独立董事、审计委员会才能对审计师的报告行为产生正面影响。

此外，由于受低价竞争（low-balling）进入策略的影响，为了避免损失，在契约前期审计师更担心被解聘（Geiger and Raghunandan, 2002），受非审计服务等外部环境的影响更大（Gul *et al.*, 2007），相对长审计任期的审计师而言，更需要寻求外部力量的保护，也就是说，长审计任期与短审计任期的审计师受独立董事、审计委员会的影响可能不同，短审计任期的审计师更需要从独立董事、审计委员会处获得支持，因此预期独立董事、审计委员会更可能对短审计任期的审计师产生显著影响。

三、研究设计

（一）数据来源

本文的样本区间为2002年至2004年在深沪两地上市的A股公司，在此基础上删除了金融、保险类公司，净资产为负的公司，业绩指标超过均值3倍标准差的极值，以及相关变量缺失的公司，最后获得的样本数为3271个样本，其中2002年的样本数为1033个，2003年的样本数为1081个，2004年的样本数为1157个。研究变量中的审计意见、主审的审计师来自Wind资讯，其中2003年和2004年的审计意见并与中国注册会计师协会网站（www.cicpa.org.cn）公布的审计意见进行了核对。其他数据来自CSMAR数据库。本文的数据处理通过Excel和SAS软件进行。

（二）检验模型和变量

为了研究独立董事、审计委员会对审计师出具审计意见行为的影响，我们建立了下述Logistic回归模型：

$$OP=\beta_0+\beta_1 OUTBD+\beta_2 PER+\beta_3 EARNMGT+\beta_4 OUTBD*PER+\beta_5 OUTBD*EARNMGT+\beta_6 LAGOP+\beta_7 BIG15+\beta_8 AGE+\beta_9 BHSHARE+\beta_{10} LNAT+\beta_{11} LEV+\beta_{12} CR+\beta_{13} REC+\beta_{14} INV+\beta_{15} LOSS+\beta_{16} INDUSTRY+\varepsilon \quad (1)$$

$$OP=\beta_0+\beta_1 AUDITCOM+\beta_2 PER+\beta_3 EARNMGT+\beta_4 AUDITCOM*PER+\beta_5 AUDITCOM*EARNMGT+\beta_6 LAGOP+\beta_7 BIG15+\beta_8 AGE+\beta_9 BHSHARE+\beta_{10} LNAT+\beta_{11} LEV+\beta_{12} CR+\beta_{13} REC+\beta_{14} INV+\beta_{15} LOSS+\beta_{16} INDUSTRY+\varepsilon \quad (2)$$

模型（1）用于检验独立董事对审计师报告行为的影响，模型（2）用于检验审计委员会对审计师报告行为的影响。

在模型（1）中：

*OP*为因变量。本文按照王跃堂和赵子夜（2003）、夏立军等（2005）、DeFond *et al.*（2000）的做法，将审计意见分为标准意见和非标准意见。当审计意见为非标准意见时，*OP*等于1，其他情况*OP*等于0。非标准意见包括了无保留意见加解释说明段、保留意见和无法表示意见三种情况。

*PER*是综合业绩指标，是对净资产收益率（*ROE*）、总资产报酬率（*ROA*）、净资产核心报酬率（*CROE*）和总资产核心报酬率（*CROA*）四个财务指标进行主成分分析得出的第一个主成分因子，用于衡量公司的综合业绩。

*EARNMGT*为虚拟变量，是盈余管理的替代变量。根据Chen *et al.*（2001）、王跃堂和赵子夜（2003）和夏立军等（2005）的做法，采用边际*ROE*作为盈余管理的替代变量，当公司的*ROE*处于（0, 1%）扭亏盈余管理区间或者是（6%, 7%）配股盈余管理区间时取值为1，其他取值为0。

*OUTBD*为独立董事比例，等于独立董事人数与董事总人数的比值。*OUTBD*PER*是独立董事比例与综合业绩的交互项，根据研究预期，如果独立董事能够提高审计师的谨慎性和独立性，那么该交互项系数为负，相反则为正。*OUTBD*EARNMGT*是独立董事比例与盈余管理的交互项，在独立董事提高了审计师的谨慎性情况下，该交互项的系数预期为正，相反预期应为负。

同时，模型（1）含有下述控制变量：

*LAGOP*为虚拟变量，当公司上年收到审计意见为非标准意见时取值为1，其他取值为0。用以控制上年度审计意见对本期审计意见的影响，大量的研究表明（Mutcher, 1985; Bell and Tabor, 1991; Carcello and Neal, 2000; Lennox, 2000; Chen *et al.*, 2001; Craswell *et al.*, 2002），上年度审计意见与本期审计意见显著正相关，因此我们在模型中控制了这一变量。

*BIG15*为虚拟变量，用以控制事务所规模对审计意见的影响。当公司的主审事务所为证监会会计部发布的《具备执行A股公司补充审计试点业务及首次发行证券过程中的专项复核业务资格的会计师事务所名单》（会计部便函【2002】

25号）中的十五家事务所之一时，*BIG15*取值为1，其他取值为0。我们控制这一变量也是因为现有研究表明（DeAngelo, 1981; DeFond *et al.*, 2000; Nichols and Smith, 1983），规模大的事务所发表非标准意见的概率更高。[7]

AGE、*BHSHARE*、*LNAT*、*LEV*、*CR*、*REC*、*INV*、*LOSS*和*INDUSTRY*几个控制变量的设置参考了DeFond *et al.*（2000）使用的控制变量。*AGE*为虚拟变量，如果公司的上市年限超过三年取值为1，其他取值为0。*BHSHARE*为虚拟变量，如果公司发行有B股或是H股取值为1，其他取值为0。*LNAT*为公司资产总额的自然对数，用以控制公司的规模。*ROE*为净资产收益率，等于净利润与净资产的比值。*LEV*为资产负债率，等于负债总额与资产总额的比值。*CR*为流动比率，等于流动资产与流动负债的比值。*REC*等于应收款项余额与资产总额的比值。*INV*等于存货余额与资产总额的比值。*LOSS*为虚拟变量，公司当年亏损取值1，其他为0。*INDUSTRY*为行业虚拟变量，用以控制行业影响，根据CSMAR提供的行业分类，上市公司共分为六大行业，其中金融、保险业已经在样本选取中予以剔除，所研究样本共为五大行业，所以模型中共包括了四个行业虚拟变量。

模型（2）中：

*AUDITCOM*为虚拟变量，公司有设立审计委员会时取值为1，其他取值为0。*AUDITCOM*PER*是审计委员会与公司综合业绩的交互项，在审计委员会能够提高审计师的谨慎性和独立性的情况下，该交互项的系数预期为负，相反则预期为正。*AUDITCOM*EARNMGT*是审计委员会与盈余管理的交互项，如果审计委员会提高了审计师的谨慎性，该交互项的系数预期为正，反之则预期为负。

除此外，模型（2）中其他变量含义与模型（1）相同。

（三）样本的描述性统计特征

表1描述了样本公司的审计意见分布情况。表1显示，从总的情况看，2002年至2004年标准意见的比例占92.02%，非标准意见的比例占7.92%，从年度分布情况看，2002年非标准意见的比例最高，占11.13%，2003年的非标准意见比例最低，下降为5.09%，而2004年的非标准意见比例又上升为7.87%。

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[7] 之所以采取证监会公布的十五家具有复核资格的事务所作为大规模事务所的标准，原因在于：首先是在中国证券市场上，按客户数或者是业务收入排名的前十大事务所与排在随后的事务所之间的差别不大，没有明确的界限，而且每年事务所的排名也不同，无法确定稳定的十大事务所；其次，有的事务所上市公司客户多，而有的事务所非上市公司客户多，使用排名的方法确定十大事务所也无法考虑非上市公司业务的影响；此外，证监会作为政府监管部门，在确定具有复核资格的事务所名单时，应对事务所的审计质量、上市和非上市的客户情况等做了全面考虑，更具有权威性。

表1 审计意见分布

		标准意见	非标准意见			合计
			无保留加说明	保留意见	无法表示意见	
2002年	公司数	918	79	29	3	1033
	比例	88.87%	7.65%	2.81%	0.68%	
2003年	公司数	1026	35	14	6	1081
	比例	94.91%	3.24%	1.30%	0.56%	
2004年	公司数	1066	48	38	5	1157
	比例	92.13%	4.15%	3.28%	0.43%	
合计	公司数	3010	162 小计 4.95%	81 261 2.48%	18 0.55%	3271
	比例	92.02%	小计	7.98%		100%

表2列示了变量的描述性统计特征。从表2可以看出，上市公司独立董事比例的均值为30.4%，中位数为33.3%，从中位数看，达到了证监会要求的三分之一比例。三年平均有42.6%的公司设立审计委员会。上年度被出具非标准意见的公司比例为8.8%。“十五大”审计的上市公司占31.1%，这说明我国的审计市场结构还比较分散。此外表2还显示，83.8%的公司的上市年限超过了三年，9.4%的公司发行了B股或是H股，净资产收益率为2.5%，总资产报酬率为3.2%，净资产核心报酬率为4.3%，总资产核心报酬率为2.8%，资产负债率为47.7%，流动比率为1.623，应收账款占资产总额的比重为8.9%，存货占资产总额的比重为14.9%，当年约有10.6%的公司发生亏损。

四、实证结果与解释

（一）单变量分析结果

表3列示了单变量分析的结果，从表3可以看出，收到标准意见公司的独立董事比例均值为30.6%，而收到非标准意见公司的独立董事比例均值为28.1%，前者比后者高出2.5%，均值T检验的T值为4.690，在1%水平上显著。收到标准意见公司的独立董事比例的中位数为33.3%，收到非标准意见公司独立董事比例的中位数为30.80%，前者比后者高出2.5%，中位数检验表明，Z值为-4.601，在1%水平上显著。也就是说，无论均值T检验还是中位数检验，收到标准意见和非标准意见公司的独立董事比例存在显著差异。表3同样表明，收到标准意见公司中有43.5%的公司有设立审计委员会，而收到非标准意见公司中仅有31.4%的

表 2 变量的描述性统计特征

变量	样本数	均值	中位数	标准偏差	最小值	最大值
OP	3271	0.080	0	0.271	0	1
OUTBD	3271	0.304	0.333	0.075	0	0.667
AUDITCOM	3271	0.426	0	0.495	0	1
LAGOP	3271	0.088	0	0.283	0	1
BIG15	3271	0.311	0	0.463	0	1
EARNMGT	3271	0.185	0	0.388	0	1
AGE	3271	0.838	1	0.369	0	1
BHSHARE	3271	0.094	0	0.293	0	1
LNAT	3271	21.197	21.114	0.913	17.497	26.855
ROE	3271	0.025	0.056	0.264	–7.390	4.414
ROA	3271	0.032	0.033	0.061	–0.267	0.252
CROE	3271	0.043	0.062	0.240	–6.717	1.664
CROA	3271	0.028	0.027	0.057	–0.239	0.235
LEV	3271	0.476	0.482	0.178	0.008	1.049
CR	3271	1.616	1.257	2.026	0.094	55.541
REC	3271	0.089	0.069	0.080	0	0.784
INV	3271	0.149	0.117	0.133	0	0.896
LOSS	3271	0.106	0	0.308	0	1

OP=1，如果公司当年被出具非标准意见；*OP*=0，其他。

OUTBD=独立董事比例，等于独立董事人数除以董事人数。

AUDITCOM=1，如果公司有设立审计委员会；*AUDITCOM*=0，其他。

LAGOP=1，如果公司上年度被出具非标准意见；*LAGOP*=0，其他。

BIG15 = 1，如果为公司提供审计服务的事务所为2002年证监会会计部发布的《具备执行A股公司补充审计试点业务及首次发行证券过程中的专项复核业务资格的会计师事务所名单》中的事务所；*BIG15*=0，其他。

EARNMGT=1，公司有扭亏或配股的盈余管理倾向，即0 < *ROE* < 1% 或6% < *ROE* < 7%；*EARNMGT*=0，其他。

AGE=1，如果公司的上市年限超过三年；*AGE*=0，其他。

BHSHARE=1，如果公司发行有B股或H股；*BHSHARE*=0，其他。

LNAT=公司当年年末总资产的自然对数。

ROE=公司当年年末净资产收益率，为当年净利润除以年末净资产。

ROA=为公司当年总资产报酬率，公司当年年末利润总额除以资产总额。

CROE=净资产核心报酬率，公司当年营业利润除以年末净资产。

CROA=总资产核心报酬率，公司当年营业利润除以年末资产总额。

LEV=资产负债率，等于当年年末负债总额除以资产总额。

CR=流动比率，等于当年年末流动资产除以流动负债。

REC=当年年末应收款项余额除以资产总额。

INV=当年年末存货余额除以资产总额。

LOSS=1，公司当年亏损；*LOSS*=0，其他。

表3 单变量分组检验结果

变量	标准意见（N=3010）		非标准意见（N=261）		T值	Z值
	均值	中位数	均值	中位数		
OUTBD	0.306	0.333	0.281	0.308	4.69***	−4.601***
AUDITCOM	0.435	0	0.314	0	3.80***	−3.793***
ROE	0.049	0.061	−0.248	0.001	6.92***	−16.238***
ROA	0.038	0.037	−0.046	−0.004	15.94***	−17.859***
CROE	0.065	0.067	−0.210	−0.057	7.43***	−16.432***
CROA	0.034	0.031	−0.038	−0.021	16.78***	−17.570***
PER	0.112	0.117	−1.288	−0.677	11.85***	−17.624***
EARNMGT	0.186	0	0.172	0	0.54	−0.544
LAGOP	0.051	0	0.510	1	−14.86***	25.107***
BIG15	0.315	0	0.276	0	1.30	−1.297
AGE	0.832	1	0.912	1	−4.26***	3.377***
BHSHARE	0.093	0	0.107	0	−0.74	0.738
LNAT	21.228	21.137	20.841	20.892	6.61***	−5.550***
LEV	0.467	0.475	0.587	0.606	−9.46***	9.686***
CR	1.639	1.280	1.353	1.030	1.93*	−6.875***
REC	0.088	0.069	0.096	0.067	1.26	0.210
INV	0.151	0.119	0.121	0.092	4.08***	−4.122***
LOSS	0.072	0	0.498	0	−13.58***	21.260***

***、**、* 分别表示均值T检验和中位数Wilcoxon检验在1%、5%和10%水平上显著。

OUTBD=独立董事比例，等于独立董事人数除以董事人数。

AUDITCOM=1，如果公司有设立审计委员会；*AUDITCOM*=0，其他。

PER=综合业绩，是对*ROE*、*ROA*、*CROE*和*CROA*四个指标进行主成分分析得出的第一主成分。其中：*ROE*=公司当年年末净资产收益率，为当年净利润除以年末净资产；*ROA*=为公司当年总资产报酬率，公司当年年末利润总额除以资产总额；*CROE*=公司当年营业利润除以年末净资产；*CROA*=公司当年营业利润除以年末资产总额。

EARNMGT=1，如果公司有扭亏或配股的盈余管理倾向，即0 > ROE < 1% 或6% < *ROE* < 7%；*EARNMGT*=0，其他。

*OUTBD*PER*，独立董事比例与综合业绩的交互项。

*OUTBD*EARNMGT*，独立董事比例与盈余管理的交互项。

*AUDITCOM*PER*，审计委员会与综合业绩的交互项。

*AUDITCOM*EARNMGT*，审计委员会与盈余管理的交互项。

LAGOP=1，如果公司上年度被出具非标准意见；*LAGOP*=0，其他。

BIG15=1，审计师为具有复核资格的事务所；*BIG15*=0，其他。

AGE=1，如果公司的上市年限超过三年；*AGE*=0，其他。

BHSHARE=1，如果公司发行有B股或H股；*BHSHARE*=0，其他。

LNAT=公司当年年末总资产的自然对数。

ROE=公司当年年末净资产收益率，为当年净利润除以年末净资产。

ROA=为公司当年总资产报酬率，公司当年年末利润总额除以资产总额。

CROE=公司当年营业利润除以年末净资产。

CROA=公司当年营业利润除以年末资产总额。

LEV=资产负债率，等于当年年末负债总额除以资产总额。

CR=流动比率，等于当年年末流动资产除以流动负债。

REC=当年年末应收款项余额除以资产总额。

INV=当年年末存货余额除以资产总额。

LOSS=1，当年亏损；*LOSS*=0，其他。

公司有设立审计委员会，均值和中位数检验均表明，二者在1%水平上存在显著差异。这说明，收到标准意见和非标准意见的公司，其独立董事和审计委员会的设置情况存在显著不同，收到标准意见的公司，其独立董事比例和有设立审计委员会的公司比例显著更高。净资产收益率、总资产报酬率、净资产核心报酬率、总资产核心报酬率和综合业绩在收到标准意见公司和收到非标准意见公司之间，均值和中位数检验都在1%水平上显著。有扭亏或是配股方向盈余管理的公司与无此动机的公司收到标准意见或是非标准意见之间的比例不存在显著差异。这一单变量分析结果初步说明，独立董事、审计委员会对审计师的报告行为具有显著影响，表明独立董事比例的提高、审计委员会的设立降低了审计师的谨慎性，使得独立董事比例高、有设立审计委员会的公司收到标准意见的比例更高，但单变量的分析并未控制其他因素的影响，表3显示业绩好的公司，收到标准意见的比例高，如果业绩好的公司独立董事比例更高，也更可能设置审计委员会，那么独立董事、审计委员会与审计意见之间的关系，很可能是业绩不同引起的，并非独立董事、审计委员会产生的效应。因此，单变量分析结果不能确切说明问题，需要进一步的进行logistic回归分析。

就模型中的其他变量来说，本期收到标准意见与非标准意见的公司，其上期收到审计意见的类型也存在显著差异，前者上期收到非标准意见的比例仅为5.1%，而后者上期收到非标准意见的比例高达51%，均值和中位数检验均在1%水平上显著，说明本期收到非标准意见的公司，上期收到非标准意见的比例显著要高。收到标准意见的公司中“十五大”审计的比例占了31.5%，收到非标准意见的公司中，“十五大”审计的比例为27.6%，但二者之间并不存在显著差异。但收到标准意见的公司上市年限超过三年的为83.2%，而收到非标准意见的公司上市年限超过三年的高达91.2%，二者之间存在显著差异。是否发行B股或是H股对审计意见没有显著影响。在公司特征变量中，除应收款项余额与资产总额比重外，资产规模、资产负债率、流动比例、存货占资产总额的比重都对审计意见有显著影响，收到标准意见的公司主要是资产规模大、资产负债率低、流动比率高、存货占资产总额比重大等财务状况好的公司，也就是说收到非标准意见公司的财务状况与收到标准意见公司的财务状况存在显著不同。

（二）Logistic多变量分析结果

Logistic回归结果列示在表4。表4的结果分为两组列示，第一组是对独立董事回归的结果，第二组是对审计委员会回归的结果。每一组又列示了两个模型的回归结果，模型1是独立董事（审计委员会）与综合业绩交互项的回归结果，[8]模型2是加独立董事（或是审计委员会）与盈余管理交互项的回归结果。

[8] 模型1中综合业绩是对净资产收益率、总资产报酬率、净资产核心报酬率和总资产核心报酬率四个业绩指标进行主成分分析得出的第一个主成分因子，该因子的贡献率为77.62%。

表 4 Logistic回归结果

变量	独立董事		审计委员会	
	模型1	模型2	模型1	模型2
截距	−1.460	−1.481	−2.410	−2.419
	(0.470)	(0.464)	(0.223)	(0.221)
OUTBD	−3.594	−3.563		
	(0.001)***	(0.002)***		
AUDITCOM			−0.271	−0.093
			(0.157)	(0.624)
PER	0.271	−0.284	−0.251	−0.275
	(0.281)	(0.005)***	(0.015)**	(0.006)***
EARNMGT	0.722	−0.658	0.751	0.933
	(0.001)***	(0.350)	(0.000)***	(0.000)***
*OUTBD*PER*	−1.861			
	(0.022)**			
*OUTBD*EARNMGT*		4.819		
		(0.036)**		
*AUDITCOM*PER*			−0.101	
			(0.458)	
*AUDITCOM*EARNMGT*				−0.585
				(0.183)
LAGOP	2.498	2.510	2.496	2.494
	(0.000)***	(0.000)***	(0.000)***	(0.000)***
BIG15	0.165	0.198	0.185	0.189
	(0.392)	(0.306)	(0.335)	(0.324)
AGE	0.125	0.111	0.101	0.118
	(0.641)	(0.678)	(0.707)	(0.663)
BHSHARE	0.174	0.214	0.199	0.198
	(0.530)	(0.438)	(0.469)	(0.472)
LNAT	−0.132	−0.130	−0.13	−0.135
	(0.171)	(0.175)	(0.174)	(0.160)
LEV	2.105	2.123	2.098	2.132
	(0.000)***	(0.000)***	(0.000)***	(0.000)***
CR	0.020	0.019	0.019	0.018
	(0.583)	(0.614)	(0.62)	(0.625)
REC	0.295	0.249	0.322	0.360
	(0.753)	(0.789)	(0.729)	(0.698)

表 4 Logistic回归结果（续）

变量	独立董事		审计委员会	
	模型1	模型2	模型1	模型2
INV	–2.470	–2.582	–2.500	–2.472
	(0.001)***	(0.001)***	(0.001)***	(0.001)***
LOSS	1.850	1.825	1.836	1.861
	(0.000)***	(0.000)***	(0.000)***	(0.000)***
行业变量	控制	控制	控制	控制
N	3271	3271	3271	3271
Pseudo R^2	0.359	0.359	0.549	0.355
模型判对率	88.60%	88.60%	88.30%	88.20%

***、**、* 分别表示在1%、5%和10%水平上显著。

OUTBD=独立董事比例，等于独立董事人数除以董事人数。

AUDITCOM=1，如果公司有设立审计委员会；*AUDITCOM*=0，其他。

PER=综合业绩，是*ROA*、*ROE*、*CROE*、*CROA*的第一主成分。其中：*ROE*=公司当年年末净资产收益率，为当年净利润除以年末净资产；*ROA* = 为公司当年总资产报酬率，公司当年年末利润总额除以资产总额；*CROE* = 公司当年营业利润除以年末净资产；*CROA*=公司当年营业利润除以年末资产总额。

EARNMGT=1，如果公司有扭亏或配股的盈余管理倾向，即0 < *ROE* < 1%或6% < *ROE* < 7%；*EARNMGT*=0，其他。

*OUTBD*PER*，独立董事比例与综合业绩的交互项。

*OUTBD*EARNMGT*，独立董事比例与盈余管理的交互项。

*AUDITCOM*PER*，审计委员会与综合业绩的交互项。

*AUDITCOM*EARNMGT*，审计委员会与盈余管理的交互项。

LAGOP=1，如果公司上年度被出具非标准意见；*LAGOP*=0，其他。

BIG15 = 1，如果为公司提供审计服务的事务所为具有专项复核业务资格的会计师事务所；*BIG15*=0，其他。

AGE=1，如果公司的上市年限超过三年；*AGE*=0，其他。

BHSHARE=1，如果公司发行有B股或H股；*BHSHARE*=0，其他。

LNAT=公司当年年末总资产的自然对数。

LEV=资产负债率，等于当年年末负债总额除以资产总额。

CR=流动比率，等于当年年末流动资产除以流动负债。

REC=当年年末应收款项余额除以资产总额。

INV=当年年末存货余额除以资产总额。

LOSS=1，当年亏损；*LOSS*=0，其他。

从对独立董事的回归结果看，模型1中独立董事比例与综合业绩交互项的系数为–1.861，显著性水平为5%，这说明，在公司业绩水平下降时，随着独立董事比例的提高，审计师出具非标准意见的概率进一步增加。模型2中独立董事与盈余管理交互项的系数为正，在5%水平上显著，这说明，随着独立董事比例的提高，审计师对盈余管理更加敏感，对于存在盈余管理行为的公司，进一步提高了出具非标准意见的概率。从审计委员会一组的回归结果看，无论是审计委员会与公司综合业绩，还是与盈余管理交互项的系数均检验不显著。这一检验结果说明，独立董事对审计师的报告行为产生了正面影响，使得审计师出具审计意见变得更加谨慎，但并未发现审计委员会对审计师的报告行为有显著影响。

同时，表4的回归结果还一致表明，上期审计意见、资产负债率和当年亏损的系数显著为正，表明上期收到非标准意见的公司，本期收到非标准意见的概率显著高，资产负债率高的公司收到非标准审计意见的概率更高，当年发生亏损的公司，收到非标准审计意见的可能性更大。存货占资产总额比重的系数显著为负，说明存货比重大的公司收到非标准意见的概率更低。“十五大”审计师的系数虽然不显著，但系数符号为正，说明“十五大”审计师有更严格出具审计意见的倾向。所有模型中的Pseudo R^2在0.35以上，模型判对率在88%以上，表明模型的回归结果较好。

表5进一步按照终极控制人控股情况进行分组检验。考虑到终极控股股东持股比例超过50%时，能够对公司实施控制，分组时按持股比例50%的界限分为两组。表5的回归结果表明，在终极控制人绝对控股的公司（控股比例大于50%），无论是独立董事一组还是审计委员会一组，所有的交互项系数检验均不显著。而在不存在终极控制人绝对控股的公司，独立董事比例与综合业绩交互项的系数为–2.282，在5%水平上显著，独立董事与盈余管理交互项的系数为6.297，在5%水平上显著，有关审计委员会的交互项系数检验均不显著。这一检验结果说明，对于不存在终极控制人绝对控股的公司，独立董事才能发挥作用，对审计师的报告行为产生正面影响。

目前审计任期对审计师报告行为的影响引起了政府监管部门、学术界等各个方面的关注，监管部门担心长审计任期影响审计师的独立性，所以，美国2002年颁布的《SOX法案》要求实施审计师轮换制度，审计合伙人和复核合伙人每五年必须轮换。中国证监会也在2003年10月8日颁布了《关于证券期货审计业务签字注册会计师定期轮换的规定》，要求”签字注册会计师连续为某一相关机构提供审计服务，不得超过五年”；“为首次公开发行证券公司提供审计服务的签字注册会计师，在该公司上市后连续提供审计服务的期限，不得超过两个完整会计年度”；“签字注册会计师已连续为同一相关机构提供五年审计服务并被轮换后，在两年以内，不得重新为该相关机构提供审计服务”；“除签字注册会计师外，会计师事务所还设有相关机构审计项目负责人的，该审计项目负责人应按照以上有关签字注册会计师定期轮换的规定进行定期轮换”。

表 5 按终极控制人控制权分组回归分析结果

Panel A ： 终极控制人控制权 > 50%

变量	模型1	模型2	模型3	模型4
截距	–6.863	–6.745	–7.330	–7.293
	(0.073)*	(0.079)*	(0.053)*	(0.056)*
OUTBD	–2.715	–2.740		
	(0.182)	(0.219)		
AUDITCOM			–0.042	0.105
			(0.897)	(0.763)
PER	0.076	–0.148	–0.209	–0.156
	(0.904)	(0.550)	(0.433)	(0.529)
EARNMGT	0.541	0.227	0.598	0.863
	(0.144)	(0.851)	(0.106)	(0.041)
*OUTBD*PER*	–0.764			
	(0.701)			
*OUTBD*EARNMGT*		1.138		
		(0.783)		
*AUDITCOM*PER*			0.189	
			(0.530)	
*AUDITCOM*EARNMGT*				–0.998
				(0.221)
LAGOP	2.438	2.457	2.510	2.499
	(0.000)***	(0.000)***	(0.000)***	(0.000)***
BIG15	0.626	0.635	0.588	0.588
	(0.053)*	(0.049)**	(0.066)*	(0.067)*
AGE	0.045	0.029	0.008	0.055
	(0.909)	(0.941)	(0.985)	(0.767)
BHSHARE	–0.107	–0.081	0.006	–0.027
	(0.825)	(0.868)	(0.989)	(0.953)
LNAT	0.074	0.070	0.066	0.055
	(0.678)	(0.691)	(0.710)	(0.767)
LEV	1.969	1.952	1.835	1.932
	(0.094)*	(0.096)*	(0.117)	(0.097)*
CR	0.095	0.089	0.081	0.098
	(0.540)	(0.567)	(0.593)	(0.513)
REC	2.284	2.245	2.280	2.381
	(0.169)	(0.176)	(0.169)	(0.153)
INV	–1.634	–1.657	–1.619	–1.618
	(0.255)	(0.250)	(0.257)	(0.256)

表5 按终极控制人控制权分组回归分析结果（续）

Panel A ： 终极控制人控制权＞50%				
变量	模型1	模型2	模型3	模型4
LOSS	1.955	1.942	1.976	1.970
	(0.001)***	(0.001)***	(0.001)***	(0.001)***
行业变量	控制	控制	控制	控制
N	1296	1296	1296	1296
Pseudo R^2	0.279	0.279	0.277	0.279
模型判对率	85.6%	85.4%	85.4%	85.9%
Panel B ： 终极控制人控制权≤50%				
截距	0.226	−0.062	−1.057	−1.150
	(0.930)	(0.980)	(0.670)	(0.644)
OUTBD	−4.325	−4.086		
	(0.001)***	(0.002)***		
AUDITCOM			−0.394	−0.162
			(0.099)*	(0.482)
PER	0.403	−0.275	−0.214	−0.261
	(0.155)	(0.015)**	(0.057)*	(0.021)**
EARNMGT	0.834	−1.012	0.851	0.999
	(0.002)***	(0.253)	(0.001)***	(0.001)***
*OUTBD*PER*	−2.282			
	(0.014)**			
*OUTBD*EARNMGT*		6.297		
		(0.025)**		
*AUDITCOM*PER*			−0.205	
			(0.197)	
*AUDITCOM*EARNMGT*				−0.453
				(0.392)
LAGOP	2.506	2.496	2.464	2.458
	(0.000)***	(0.000)***	(0.000)***	(0.000)***
BIG15	−0.058	−0.004	0.013	0.0192
	(0.818)	(0.986)	(0.957)	(0.938)
AGE	0.070	0.098	0.084	0.113
	(0.852)	(0.794)	(0.822)	(0.763)
BHSHARE	0.359	0.355	0.339	0.324
	(0.300)	(0.309)	(0.329)	(0.347)
LNAT	−0.198	−1.880	−0.192	−0.194
	(0.106)	(0.124)	(0.112)	(0.109)

表 5 按终极控制人控制权分组回归分析结果（续）

Panel B： 终极控制人控制权≤50%				
LEV	2.237	2.276	2.318	2.365
	(0.001)***	(0.001)***	(0.001)***	(0.001)***
CR	0.011	0.011	0.011	0.011
	(0.784)	(0.791)	(0.781)	(0.780)
REC	–0.339	–0.352	–0.280	–0.242
	(0.775)	(0.764)	(0.812)	(0.836)
INV	–2.761	2.923	–2.905	–2.852
	(0.004)***	(0.002)***	(0.002)***	(0.003)***
LOSS	1.959	1.938	1.920	1.968
	(0.000)***	(0.000)***	(0.000)***	(0.000)***
行业变量	控制	控制	控制	控制
N	1975	1975	1975	1975
Pseudo R^2	0.393	0.392	0.386	0.386
模型判对率	89.8%	89.9%	89.7%	89.5%

***、**、* 分别表示系数检验显著性水平在1%、5%和10%水平以上。

OUTBD=独立董事比例，等于独立董事人数除以董事总人数。

AUDITCOM=1，如果公司有设立审计委员会；*AUDITCOM*=0，其他。

PER=综合业绩，是*ROA*、*ROE*、*CROE*、*CROA*的第一主成分。其中：*ROE*=公司当年年末净资产收益率，为当年净利润除以年末净资产；*ROA* = 为公司当年总资产报酬率，公司当年年末利润总额除以资产总额；*CROE* = 公司当年营业利润除以年末净资产；*CROA*=公司当年营业利润除以年末资产总额。*LEV*=资产负债率，等于当年年末负债总额除以资产总额。

EARNMGT = 1，如果公司有扭亏或配股的盈余管理倾向，即0 < *ROE* < 1%或6% < *ROE* < 7%；*EARNMGT* = 0，其他。*LAGOP* = 1，如果公司上年度被出具非标准意见；*LAGOP* = 0，其他。

*OUTBD*PER*，独立董事比例与综合业绩的交互项。

*OUTBD*EARNMGT*，独立董事比例与盈余管理的交互项。

*AUDITCOM*PER*，审计委员会与综合业绩的交互项。

*AUDITCOM*EARNMGT*，审计委员会与盈余管理的交互项。

BIG15=1，审计师为具有复核资格的事务所；*BIG15*=0，其他。

AGE=1，如果公司的上市年限超过三年；*AGE*=0，其他。

BHSHARE=1，如果公司发行有B股或H股；*BHSHARE*=0，其他。

LNAT=公司当年年末总资产的自然对数。

CR=流动比率，等于当年年末流动资产除以流动负债。

REC=当年年末应收款项余额除以资产总额。

INV=当年年末存货余额除以资产总额。*LOSS*=1，当年亏损；*LOSS*=0，其他。

所以，表6也按照审计任期分组进行检验，考察独立董事、审计委员会对不同任期的审计师报告行为的影响是否不同。

《SOX法案》和我国证监会都规定五年实施审计师轮换，这意味着监管部门认为超过五年是长审计任期的一个标志，因此本文以五年为分界点，将样本公司分为两组，一组审计任期在五年及以下，另一组的审计任期在五年以上。从表6可以看出，在审计任期大于五年的长审计任期公司组，独立董事、审计委员会的交互项均不显著，而在审计任期小于或等于五年的短审计任期公司组，独立董事与综合业绩交互项的系数显著为负，独立董事与盈余管理交互项的系数显著为正。这说明，独立董事主要影响了短审计任期的审计师报告行为，独立董事比例的提高，提高了董事会的独立性，对短审计任期的审计师产生积极的正面作用。

（三）时间序列分析结果

前面我们从截面检验了公司之间独立董事比例、审计委员会设立差异对审计师报告决策的影响，为了测试其结果的稳定性。我们进一步分析了公司设立独立董事（审计委员会）前后，审计师发表审计意见的差异。本文在截面回归样本的基础上，选择以2002年设立独立董事（审计委员会）的公司为样本，检验其设立前三年与设立后三年，审计师发表审计意见的差异，即样本区间是从1999年至2004年。由于回归分析中需要使用1998年数据，而且要保证所研究样本六年间的变量数据齐全，所以删除了在1998之后上市的公司，以及相关变量缺失的公司，最后得到2002年设立独立董事公司的样本数为394家，六年样本总数为2364家；设立审计委员会的公司样本为112家，六年样本总数为672家。2364家独立董事样本公司中，独立董事设立前三年收到标准意见的公司有1027家，而独立董事设立后三年收到标准意见的公司为1076家；独立董事设立前三年收到非标准意见的公司为155家，独立董事设立后收到非标准意见的公司为106家。672家审计委员会样本公司中，审计委员会设立前三年收到标准意见的公司为298家，设立后收到标准意见的公司为309家；审计委员会设立前收到非标准意见的公司为38家，设立后收到非标准意见的公司为27家。

表7列示了时间序列分析结果。在表7中，*TOUTBD*和*TAUDITCOM*的含义分别表示设立独立董事、审计委员会时的虚拟变量，设立独立董事或审计委员会后三年，该变量取值为1，其他为0。表7结果显示，在所有模型中，综合业绩的系数仍然显著为负，盈余管理的系数在检验独立董事效应的模型中显著为正，这说明，从长期的时间序列角度看，审计师的报告行为与综合业绩、盈余管理的关系与截面结论一致，业绩下降时，出具非标准意见概率增加，进行盈余管理的公司收到非标准意见的概率更高。同时表7也表明，独立董事与综合业绩交互项的系数显著为负，独立董事与盈余管理的系数检验不显著，审计委员会的两个交互项系数检验均不显著。这一时间序列的回归结果表明，独立董事

表 6 按事务所规模分组回归分析结果

Panel A ： 审计任期 > 5

变量	模型1	模型2	模型3	模型4
截距	2.796	2.849	3.320	3.125
	(0.453)	(0.442)	(0.370)	(0.396)
OUTBD	1.494	0.988		
	(0.467)	(0.603)		
AUDITCOM			–0.141	0.166
			(0.654)	(0.579)
PER	–0.333	–0.330	–0.289	–0.322
	(0.452)	(0.059)*	(0.116)	(0.065)*
EARNMGT	0.387	–0.306	0.351	0.741
	(0.297)	(0.818)	(0.344)	(0.081)*
*OUTBD*PER*	0.010			
	(0.994)			
*OUTBD*EARNMGT*		2.261		
		(0.585)		
*AUDITCOM*PER*			–0.134	
			(0.529)	
*AUDITCOM*EARNMGT*				–1.356
				(0.117)
LAGOP	2.376	2.386	2.336	2.335
	(0.000)***	(0.000)***	(0.000)***	(0.000)***
BIG15	0.677	0.687	0.677	0.706
	(0.030)**	(0.028)**	(0.030)**	(0.024)**
AGE	1.509	1.487	1.418	1.508
	(0.248)	(0.257)	(0.280)	(0.245)
BHSHARE	–0.006	0.022	–0.034	–0.018
	(0.990)	(0.965)	(0.945)	(0.972)
LNAT	–0.490	–0.484	–0.485	–0.489
	(0.004)***	(0.004)***	(0.004)***	(0.004)***
LEV	2.484	2.499	2.551	2.622
	(0.022)**	(0.021)**	(0.020)	(0.018)**
CR	–0.092	–0.088	–0.094	–0.106
	(0.596)	(0.593)	(0.603)	(0.569)
REC	–1.127	–1.129	–1.138	–1.096
	(0.475)	(0.470)	(0.471)	(0.484)
INV	–2.427	–2.421	–2.435	–2.340
	(0.049)**	(0.049)**	(0.048)**	(0.056)*

表 6 按事务所规模分组回归分析结果（续）

Panel A ： 审计任期 > 5				
变量	模型1	模型2	模型3	模型4
LOSS	1.604	1.595	1.535	1.590
	(0.001)***	(0.001)***	(0.001)***	(0.001)***
行业变量	控制	控制	控制	控制
N	1416	1416	1416	1416
Pseudo R^2	0.340	0.341	0.340	0.344
模型判对率	87.70%	87.60%	87.70%	88.20%
Panel B ： 审计任期 ≤ 5				
截距	–4.670	–4.156	–6.227	–6.222
	(0.066)*	(0.103)	(0.011)**	(0.011)**
OUTBD	–6.345	–6.784		
	(0.000)***	(0.000)***		
AUDITCOM			–0.393	–0.269
			(0.112)	(0.289)
PER	0.581	–0.269	–0.249	–2.645
	(0.068)*	(0.034)**	(0.057)*	(0.037)**
EARNMGT	0.953	–0.993	1.012	1.131
	(0.001)***	(0.252)	(0.000)***	(0.000)***
*OUTBD*PER*	–2.955			
	(0.007)***			
*OUTBD*EARNMGT*		7.003		
		(0.016)**		
*AUDITCOM*PER*			–0.078	
			(0.679)	
*AUDITCOM*EARNMGT*				–0.375
				(0.483)
LAGOP	2.601	2.607	2.590	2.590
	(0.000)***	(0.000)***	(0.000)***	(0.000)***
BIG15	–0.046	–0.039	–0.032	–0.029
	(0.857)	(0.879)	(0.899)	(0.908)
AGE	0.178	0.185	0.120	0.130
	(0.536)	(0.525)	(0.679)	(0.652)
BHSHARE	0.324	0.363	0.363	0.355
	(0.346)	(0.291)	(0.285)	(0.293)
LNAT	0.064	0.045	0.066	0.063
	(0.594)	(0.705)	(0.577)	(0.594)

表 6 按事务所规模分组回归分析结果（续）

Panel B： 审计任期≤5				
LEV	1.995	1.953	2.002	2.026
	(0.004)***	(0.004)***	(0.003)***	(0.003)***
CR	0.035	0.031	0.036	0.036
	(0.352)	(0.417)	(0.345)	(0.341)
REC	0.094	0.506	0.815	0.858
	(0.420)	(0.682)	(0.501)	(0.450)
INV	–2.642	–2.737	–2.698	–2.677
	(0.009)***	(0.007)***	(0.007)***	(0.008)***
LOSS	2.037	2.072	1.992	2.011
	(0.000)***	(0.000)***	(0.000)***	(0.000)***
行业变量	控制	控制	控制	控制
N	1855	1855	1855	1855
Pseudo R^2	0.394	0.393	0.378	0.378
模型判对率	89.90%	90.10%	89.30%	89.20%

***、**、* 分别表示系数检验显著性水平在1%、5%和10%水平以上。

OUTBD= 独立董事比例，等于独立董事人数除以董事总人数。

AUDITCOM= 1，如果公司有设立审计委员会；*AUDITCOM*= 0，其他。

PER= 综合业绩，是*ROA*、*ROE*、*CROE*、*CROA*的第一主成分。其中：*ROE*= 公司当年年末净资产收益率，为当年净利润除以年末净资产；*ROA* = 为公司当年总资产报酬率，公司当年年末利润总额除以资产总额；*CROE* = 公司当年营业利润除以年末净资产；*CROA* = 公司当年营业利润除以年末资产总额。*LEV*= 资产负债率，等于当年年末负债总额除以资产总额。

EARNMGT = 1，如果公司有扭亏或配股的盈余管理倾向，即0 < *ROE* < 1%或6% < *ROE* < 7%；*EARNMGT* = 0，其他。*LAGOP* = 1，如果公司上年度被出具非标准意见；*LAGOP* = 0，其他。

*OUTBD*PER*，独立董事比例与综合业绩的交互项。

*OUTBD*EARNMGT*，独立董事比例与盈余管理的交互项。

*AUDITCOM*PER*，审计委员会与综合业绩的交互项。

*AUDITCOM*EARNMGT*，审计委员会与盈余管理的交互项。

BIG15= 1，审计师为具有复核资格的事务所；*BIG15*= 0，其他。

AGE= 1，如果公司的上市年限超过三年；*AGE*= 0，其他。

BHSHARE= 1，如果公司发行有B股或H股；*BHSHARE*= 0，其他。

LNAT= 公司当年年末总资产的自然对数。

CR= 流动比率，等于当年年末流动资产除以流动负债。

REC= 当年年末应收款项余额除以资产总额。

INV= 当年年末存货余额除以资产总额。*LOSS*= 1，当年亏损；*LOSS*= 0，其他。

表 7 时间序列分析

变量	独立董事		审计委员会	
	模型1	模型2	模型1	模型2
截距	−6.683	−6.391	−12.127	−12.114
	(0.002)***	(0.003)***	(0.017)**	(0.017)**
TOUTBD	−0.580	−0.364		
	(0.005)***	(0.081)*		
TAUDITCOM			0.173	0.102
			(0.716)	(0.834)
PER	−0.615	−1.040	−0.785	−0.673
	(0.011)**	(0.000)***	(0.041)**	(0.002)***
EARNMGT	0.512	0.523	−0.236	−0.295
	(0.018)**	(0.047)**	(0.667)	(0.662)
*TOUTBD*PER*	−0.616			
	(0.017)**			
*TOUTBD*EARNMGT*		−0.164		
		(0.702)		
*TAUDITCOM*PER*			0.130	
			(0.727)	
*TAUDITCOM*EARNMGT*				0.206
				(0.848)
LAGOP	2.456	2.453	3.606	3.606
	(0.000)***	(0.000)***	(0.000)***	(0.000)***
BIG15	0.191	0.177	0.335	0.338
	(0.318)	(0.356)	(0.433)	(0.429)
AGE	−0.403	−0.492	−0.725	−0.694
	(0.096)*	(0.043)**	(0.203)	(0.214)
BHSHARE	0.090	0.045	0.266	0.293
	(0.749)	(0.875)	(0.617)	(0.583)
LNAT	0.164	0.152	0.480	0.450
	(0.109)	(0.136)	(0.048)**	(0.047)**
LEV	0.130	0.107	−2.951	−2.959
	(0.596)	(0.658)	(0.001)***	(0.002)***
CR	−0.002	−0.002	−0.003	−0.003
	(0.472)	(0.551)	(0.776)	(0.773)
REC	1.424	1.303	3.420	3.454
	(0.005)***	(0.009)***	(0.012)	(0.011)
INV	−0.946	−0.838	−1.987	−2.037
	(0.007)***	(0.015)**	(0.030)**	(0.025)**

表 7 时间序列分析（续）

变量	独立董事		审计委员会	
	模型1	模型2	模型1	模型2
LOSS	1.180	1.002	1.945	2.038
	(0.000)***	(0.000)***	(0.001)***	(0.002)***
行业变量	控制	控制	控制	控制
N	2364	2364	672	672
Pseudo R^2	0.317	0.314	0.456	0.457
模型判对率	86.80%	86.70%	93.50%	93.30%

***、**、* 分别表示在1%、5%和10%水平上显著。

TOUTBD=1，独立董事设立后三年；OUTBD=0，其他。

TAUDITCOM=1，设立审计委员会后三年；*AUDITCOM*=0，其他。

PER=综合业绩，是*ROA*、*ROE*、*CROE*、*CROA*的第一主成分。其中：*ROE*=公司当年年末净资产收益率，为当年净利润除以年末净资产；*ROA* = 为公司当年总资产报酬率，公司当年年末利润总额除以资产总额；*CROE* = 公司当年营业利润除以年末净资产；*CROA*=公司当年营业利润除以年末资产总额。

EARNMGT = 1，如果公司有扭亏或配股的盈余管理倾向，即0 < *ROE* < 1%或6% < *ROE* < 7%；*EARNMGT*=0，其他。

*TOUTBD*PER*，独立董事设立与综合业绩的交互项。

*TOUTBD*EARNMGT*，独立董事设立与盈余管理的交互项。

*TAUDITCOM*PER*，审计委员会设立与综合业绩的交互项。

*TAUDITCOM*EARNMGT*，审计委员会设立与盈余管理的交互项。

LAGOP=1，如果公司上年度被出具非标准意见；*LAGOP*=0，其他。

BIG15 = 1，如果为公司提供审计服务的事务所为具有专项复核业务资格的会计师事务所；*BIG15*=0，其他。

AGE=1，如果公司的上市年限超过三年；*AGE*=0，其他。

BHSHARE=1，如果公司发行有B股或H股；*BHSHARE*=0，其他。

LNAT=公司当年年末总资产的自然对数。

LEV=资产负债率，等于当年年末负债总额除以资产总额。

CR=流动比率，等于当年年末流动资产除以流动负债。

REC=当年年末应收款项余额除以资产总额。

INV=当年年末存货余额除以资产总额。

LOSS=1，当年亏损；*LOSS*=0，其他。

影响审计师的报告行为，在公司综合业绩下降时，独立董事设立后，审计师进一步提高了出具非标准意见的概率。

五、研究结论与局限性

本文以2002年至2004年的3271个A股公司为研究对象，研究了独立董事、审计委员会对审计师报告行为的影响。研究发现，在不存在控股股东绝对控股的公司，在公司综合业绩下降时，随着独立董事比例的提高，审计师出具非标准意见的概率进一步显著下降；存在盈余管理的公司，随着独立董事比例的提高，审计师出具非标准意见的概率也进一步增加。研究还发现，由于短审计任期的审计师容易受被解聘威胁，更需要获得外部力量的支持，所以独立董事显著影响了审计任期短的审计师的报告行为，但并未发现对长审计任期审计师的报告行为有显著影响。而且从独立董事设立前后的比较分析也发现，在公司业绩下滑时，独立董事设立后，审计师出具非标准意见的概率得到增加。这一研究结论说明，独立董事的设立对审计师的报告行为产生了正面影响，有利于提高审计师的独立性和执业谨慎性，使审计师出具标准意见的条件变得更加苛刻。但本文并未发现审计委员会对审计报告行为产生正面作用，这一结论的潜在意义表明，目前监管部门还需要进一步强化审计委员会的作用，以发挥审计委员会对审计师报告行为的正面作用，提高公司的财务报告质量。

最后需要说明的是，本文未对独立董事、审计委员会的组成、专业、勤奋程度等更深层次的问题进行研究，对这些问题的研究，有利于更好地理解独立董事、审计委员会等公司治理结构变化对审计师报告行为的影响。

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INDEPENDENT DIRECTORS, AUDIT COMMITTEES, AND AUDIT OPINIONS: EVIDENCE FROM THE CHINESE SECURITIES MARKET[1]

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ABSTRACT

This paper studies the relationship among independent directors, audit committees, and audit opinions. A negative relationship is found between unclean opinions and the interaction between the proportion of independent directors and the comprehensive performance of the company, while a positive relationship is found between unclean opinions and the interaction between the proportion of independent directors and earnings management. The results illustrate that as the proportion of independent directors increases, the auditors become more cautious. The probability that auditors will issue unclean opinions is further increased with respect to companies whose performance is deteriorating and those who manage earnings. In addition, only in companies where no ultimate controlling shareholder has absolute control over the company can independent directors exercise their duties. We also find that independent directors can exert a significant influence on auditors with short tenure, but that an audit committee has no significant impact on the reporting activities of auditors.

Keywords: Independent Director, Audit Committee, Audit Opinion

I. INTRODUCTION

In earlier times, the corporate governance structure of listed companies in China imitated the supervisory governing model of Germany. The supervisory committee

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established in a Chinese company could, according to its terms of reference, examine the company's financial reports, monitor the activities of directors and general managers for any violation of laws and regulations and of the Articles of Association, and convene interim meetings of shareholders. However, it was found that in actual operations the committees failed to exercise their supervisory functions as expected. Therefore, the China Securities Regulatory Commission (CSRC) issued the Guidance Opinions on Setting Up the System of Independent Directorships in Listed Companies (hereinafter referred to as the "Guidance Opinions") in August 2001, which provided that listed companies should establish an independent directorship system and employ suitable persons to act as independent directors, among whom at least one director should be a professional in accounting (accounting professionals refer to senior personnel or to certified public accountants). The board of directors of a listed company should consist of at least two independent directors by 30 June 2002, and at least one-third of the board members should be independent directors by 30 June 2003. According to the Guidance Opinions, independent directors should be allowed to execute their duties independently, free of any influence from major shareholders, actual controllers, or other stakeholders of the listed companies. The listed companies should grant the following special powers to independent directors: (1) to review substantial connected party transactions; (2) to propose to the board of directors the engagement and dismissal of CPA firms; (3) to propose to the board of directors convening interim shareholders' meetings; (4) to propose convening meetings of the board of directors; (5) to separately engage an external auditor or a consulting organisation; and (6) to solicit voting rights from shareholders publicly before convening the shareholders' meeting.

In January 2002, the CSRC and the former State Economic and Trade Commission jointly issued the Corporate Governance Standards for Listed Companies (hereinafter referred to as the "Corporate Governance Standards"). The Corporate Governance Standards prescribe that the board of directors of a listed company may set up special committees for strategies, auditing, nominations, and remuneration and appraisals in accordance with the resolutions of the shareholders' meetings. All special committees shall be completely composed of directors. For the audit committee, the nomination committee, and the remuneration and appraisal committee, independent directors shall constitute the majority of the committee members and act as the convenors. At least one independent director in the audit committee shall be a professional in accounting. The audit committee established as required shall execute the following duties: (1) recommending the engagement or replacement of an external auditor; (2) supervising the internal audit system and its operation; (3) linking communications between the internal auditor and the external auditor; (4) reviewing the company's financial information and its disclosure; and (5) monitoring the internal control system.

With the issuance and implementation of the Guidance Opinions and the Corporate Governance Standards, significant changes have taken place in the corporate governance structure of listed companies in China. One after another, listed companies set up independent directorship systems and audit committees in accordance

with the suggestions in the Guidance Opinions and the requirements in the Corporate Governance Standards. An internal governance structure similar to that of listed companies in Britain and the US was also established among Chinese listed companies. One question these developments raise is whether these significant changes in the corporate governance structure of Chinese listed companies would influence the reporting activities of auditors. This is the research topic of this paper.

We choose 3271 sample companies from the years 2002 to 2004 as the research subjects and examine the influence of independent directors and the audit committee on the reporting activities of auditors. According to the study's results, independent directors have a significant influence on the reporting activities of auditors in companies without a super controlling shareholder. As the proportion of independent directors increases, the probability that auditors will issue an unclean opinion is further increased when the performance of the company is deteriorating. The same result is found when the company manages earnings. In addition, we also find that independent directors have a positive effect only on auditors with short tenure.

II. RESEARCH QUESTIONS

The proportion of independent directors reflects the degree of independence of the board of directors, while the audit committee is considered to represent the professional level of the board of directors.[4] The execution of board functions largely depends on the independence and professional level of the board of directors. Therefore, from a theoretical perspective, a higher proportion of independent directors and the establishment of an audit committee can improve the governance effects of the board. Many empirical studies have also demonstrated that a higher proportion of independent directors can enhance board independence, strengthen supervision over management, decrease the possibility of earnings management (Xie *et al*., 2003; Dechow *et al*., 1996; Klein, 2002), and reduce the probability of defrauding of the company (Beasley, 1996; Beasley *et al*., 2000). Companies that have established an audit committee are less likely to manage earnings (Xie *et al*., 2003) and to defraud and violate the law and regulations (McMullen, 1996).

As an important external governance mechanism, external auditing is closely related to the board of directors, which is considered an internal governance mechanism. With the help of an external auditor, the board of directors can strengthen supervision over management's information disclosures, while the external auditors can win the board's support regarding their audit activities through communicating with independent directors and the audit committee. A great deal of overseas litera-

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[4] Usually, some professional committees are set up under the board of directors, such as the remuneration and appraisal committee, strategy committee, nomination committee, and audit committee. The establishment of these committees reflects the professional decentralisation of the board of directors. Setting up an audit committee shows that the company puts great emphasis on financial report supervision.

ture describes the influence of independent directors and audit committees on external auditing. Carcello *et al*. (2002) study the relationship between independent directors and audit fees and find a significantly positive relationship between the proportion of independent directors and fees. Independent directors pursue high-quality audit services and are willing to pay a premium for extra audit services in order to maintain their reputation capital, avoid lawsuits, and protect the interests of the shareholders. Beasley and Petroni (2001) examine the relationship between board independence and the choice of auditors. They find that companies with a higher proportion of independent directors have a higher probability of choosing Big Six auditors with industry specialisation. Abbott *et al*. (2003a) and Abbott *et al*. (2003b) examine the influence of an audit committee on audit fees. According to Abbott *et al*. (2003a), the proportion of non-audit fees is remarkably low in companies whose audit committee is composed of independent directors and holds at least four meetings every year. Abbott *et al*. (2003b) find that the independence of an audit committee and its financial specialty are positively correlated to audit fees. Some literature has also examined the attitude of the audit committee towards supporting auditor decisions. The research findings show that whenever any discrepancies exist between the views of the auditor and management, the audit committee tends to stand by the auditor (Knapp, 1987; DeZoort *et al*., 2003a). The audit committee will offer greater support to auditors who give important judgments that can be quantified and from which result tendencies and precise measurements can be derived (DeZoort *et al*., 2003b). Some literature also finds that companies whose audit committees are composed of independent directors and hold at least two meetings every year tend to engage auditors with industry specialisation (Abbott and Parker, 2000). An audit committee with a high level of independence may reduce the potential audit risks, decrease the possibility of auditor resignation, and ensure the quality of succeeding auditors (Lee *et al*., 2004). A financially distressed company with a highly independent audit committee is more likely to receive a going-concern-modified opinion from the auditor (Carcello and Neal, 2000), and the company is less likely to dismiss the auditor after receiving the going-concern opinion for the first time (Carcello and Neal, 2003). The research findings above indicate that independent directors and audit committees have significant influence not only on audit fees and audit opinions but also on the engagement and dismissal of auditors.

Once they have been introduced into Chinese listed companies, independent directors and audit committees may influence the reporting activities of the auditors. From a theoretical perspective, the effective introduction of independent directors and an audit committee may increase the independence and professional level and improve the supervisory and governance functions of the board of directors. On the one hand, this can alleviate pressure on the auditors from the controlling shareholder and management. On the other hand, supervision over the auditors' reporting activities can be strengthened through direct communications with the external auditor, thus increasing the auditors' independence and prudence and allowing them to issue opinions with more objectivity and impartiality. In contrast, auditors may

lower their assessment of the risk that the company might make material misstatements and may adopt higher standards for acceptable risks on consideration that the risks of corporate governance and earnings manipulation will decrease with the introduction of independent directors and audit committees into the listed companies. Furthermore, independent directors will share the risks of financial fraud that otherwise would have been shouldered by the auditor only.[5] In this case, it is ironic that auditors might become less prudent. Therefore, it is interesting to know empirically whether the establishment of an independent directorship and audit committee will increase or decrease auditor prudence.

With respect to the influence of independent directors and audit committees on external auditing, some researchers choose certain companies facing specific problems as research subjects. For instance, Carcello and Neal (2000) choose financially distressed companies; Carcello and Neal (2003) select companies receiving going-concern modified opinions from auditors; Beasley (1996) selects companies with fraudulent financial statements; and Abbott *et al*. (2004) choose companies with restated financial statements.

In the Chinese stock markets, it is hard to define sample companies similar to those in the above-mentioned literature.[6] However, according to previous research, auditors are sensitive to the performance and earnings management of the company when they issue their audit opinions. If the company's performance is improving, the probability of issuing an unclean opinion will be low. Companies managing earnings may be more likely to receive an unclean opinion (Sundgren, 1998; Chen *et al*., 2001; Zhang and Liu, 2002). If a higher proportion of independent directors or the establishment of an audit committee can improve the prudence of the auditors, the probability of auditors issuing unclean opinions will further increase when the company's performance is deteriorating or when earnings are managed. In contrast, if an increase in the proportion of independent directors or the establishment of an audit committee lowers the prudence of auditors, the probability of their issuing unclean opinions will decrease when the company's performance is deterio-

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[5] Independent directors mainly consist of economists, celebrities, retired government officials, and general managers of well-known enterprises. Auditors may expect that introducing independent directors will strengthen the canvassing power of the company to lower the possibility of punishment when it encounters problems. The punishment of auditors is often linked with that of the listed company. If the regulatory departments do not punish the listed company, neither will they penalise the auditors.

[6] Although there exist companies in going-concern crises in the Chinese securities market, most listed companies in China are state-owned or state-controlled. The government supports the companies in going-concern crises by providing government subsidies or loans from state-owned banks; therefore, delisting companies is rare in China. At present, there is no effective way to judge which companies are having going-concern crises. Only a few were punished by the CSRC for financial fraud after the establishment of independent directorships and audit committees or during the research period of this paper (from 2002 to 2004). In addition, just a few were required to restate their financial statements. Therefore, it is difficult to obtain research samples similar to those in previous studies.

rating or when earnings are managed. For this reason, we study the influence of independent directors and an audit committee on the reporting and decision-making activities of auditors through investigating the effect these entities have on the sensitivity of auditors to company performance and earnings management.

When the largest shareholder absolutely controls a listed company, that shareholder is able to elect the majority of or even all the directors of the board. Under such circumstances, the largest shareholder can take advantage of his or her controlling status and dominate the board, thus forming an absolute control over the corporate governance and operations of the company (Research Center of Shanghai Stock Exchange, 2004). The control of the largest shareholder thus limits the influence of independent directors and an audit committee on the reporting activities of the auditors. In other words, in companies that are absolutely controlled by the ultimate largest shareholder, it is difficult for independent directors and the audit committee to exercise their duties. Hence, it is expected that only in companies having no absolute controlling shareholders can independent directors and the audit committee positively affect the reporting activities of the auditors. In addition, owing to their low-balling strategies, auditors are more worried about dismissal and are influenced to a greater extent by the external environment, such as non-audit fees (Gul *et al*., 2007), during the early contract period for fear of suffering losses (Geiger and Raghunandan, 2002). Compared with auditors with relatively long tenure, auditors with short tenure are in greater need of external support; auditors with long or short tenure can be affected differently by independent directors and the audit committee. Auditors with short tenure will be in greater need of support from independent directors and the audit committee. Therefore, it is expected that independent directors and the audit committee will more likely have a significant influence on auditors with short tenure.

III. RESEARCH DESIGN

3.1 Sample Source

We choose companies with A shares listed on both the Shanghai and Shenzhen Stock Exchanges from 2002 to 2004 as the sample, excluding those in the financial or insurance industry, those with negative net assets, and those with missing variables. We finally obtain 3271 sample companies, among which 1033 are for 2002, 1081 for 2003, and 1157 for 2004. Data on variables used in the research, such as audit opinions and the auditor-in-charge, are taken from the Wind Database, and audit opinions for 2003 and 2004 are checked with those announced on the website of the Chinese Institute of Certified Public Accountants (www.cicpa.org.cn). Other data are sourced from the CSMAR Database. Data presented in this paper have been processed with the software applications Excel and SAS.

3.2 Models and Variables

To study the influence of independent directors and audit committees on how auditors issue audit opinions, we set up the following Logistic regression models:

$$OP = \beta_0 + \beta_1 OUTBD + \beta_2 PER + \beta_3 EARNMGT + \beta_4 OUTBD*PER + \beta_5 OUTBD*EARNMGT + \beta_6 LAGOP + \beta_7 BIG15 + \beta_8 AGE + \beta_9 BHSHARE + \beta_{10} LNAT + \beta_{11} LEV + \beta_{12} CR + \beta_{13} REC + \beta_{14} INV + \beta_{15} LOSS + \beta_{16} INDUSTRY + \varepsilon \quad (1)$$

$$OP = \beta_0 + \beta_1 AUDITCOM + \beta_2 PER + \beta_3 EARNMGT + \beta_4 AUDITCOM*PER + \beta_5 AUDITCOM*EARNMGT + \beta_6 LAGOP + \beta_7 BIG15 + \beta_8 AGE + \beta_9 BHSHARE + \beta_{10} LNAT + \beta_{11} LEV + \beta_{12} CR + \beta_{13} REC + \beta_{14} INV + \beta_{15} LOSS + \beta_{16} INDUSTRY + \varepsilon \quad (2)$$

Model (1) tests the influence of independent directors on the reporting activities of auditors, while Model (2) tests the influence of audit committees on the same.

In Model (1):

OP is a dependent variable. Audit opinions are divided into clean opinions and unclean opinions in accordance with Wang and Zhao (2003), Xia *et al*. (2005), and DeFond *et al*. (2000). *OP* takes the value of 1 if the audit opinions are unclean, and 0 otherwise. Unclean opinions include the following three types: unqualified with an explanatory paragraph, qualified, and a disclaimer of opinion.

PER, indicating comprehensive performance, is the first principal component factor found from the principal component factor analysis on the four financial variables, namely returns on equity (*ROE*), returns on total assets (*ROA*), core returns on equity (*CROE*), and core returns on total assets (*CROA*). *PER* is used to measure the comprehensive performance of a company.

EARNMGT, a dummy variable, is a substitution variable for earnings management. Following Chen *et al*. (2001), Wang and Zhao (2003), and Xia *et al*. (2005), we use marginal *ROE* as the substitution variable for earnings management. When the *ROE* of a company falls within (0, 1%), which is the range showing a propensity to avoid reporting loss, or (6%, 7%), which is the range showing an incentive to manage earnings to meet the regulatory requirements for rights offerings, *EARNMGT* takes the value of 1, and 0 otherwise.

OUTBD is the proportion of independent directors, which is equal to the ratio of the number of independent directors to the total number of directors. *OUTBD*PER* is the interaction term between the proportion of independent directors and comprehensive performance. Based on our research expectations, if independent directors can improve the prudence and independence of auditors, the coefficient of this interaction term will be negative, and positive otherwise. *OUTBD*EARNMGT* is the interaction term between the proportion of independent directors and earnings management. If independent directors can improve the prudence of auditors, the coefficient of this interaction term is expected to be positive, and negative otherwise.

Meanwhile, Model (1) includes the following control variables:

LAGOP is a dummy variable, which takes the value of 1 if a company has received an unclean audit opinion for the previous year, and 0 otherwise. This variable is used to control the influence of the previous year's audit opinions on the current year's. A large amount of research (Mutcher, 1985; Bell and Tabor, 1991; Carcello

and Neal, 2000; Lennox, 2000; Chen *et al*., 2001; Craswell *et al*., 2002) shows that previous year audit opinions have a significantly positive relationship with the current year's. Therefore, we control this variable in the model.

BIG15 is a dummy variable that is used to control the influence of CPA firm size on audit opinions. If the auditor of the company is one of the 15 CPA firms on the "List of CPA Firms with Special Review Qualifications to Offer Pilot Supplementary Audit and IPO Audit Review Services for A-share Companies" published by the Accounting Department of the CSRC, *BIG15* takes the value of 1, and 0 otherwise. We control this variable because existing research (DeAngelo, 1981; DeFond *et al*., 2000; Nichols and Smith, 1983) has demonstrated that larger CPA firms are more likely to issue unclean audit opinions.[7]

We set control variables, including *AGE, BHSHARE, LNAT, LEV, CR, REC, INV, LOSS*, and *INDUSTRY*, in consultation with the settings used by DeFond *et al*. (2000). *AGE* is a dummy variable, which takes the value of 1 if the company has been listed for more than three years, and 0 otherwise. *BHSHARE* is a dummy variable, which takes the value of 1 if the company has issued B shares or H shares, and 0 otherwise. *LNAT* is the natural logarithm of total assets of the company, which is used to control company size. *ROE* refers to returns on equity, which is equal to net profits divided by net assets. *LEV* refers to the asset-liability ratio, which is equal to total liabilities divided by total assets. *CR* refers to the current ratio, which is equal to current assets divided by current liabilities. *REC* is equal to receivables balance divided by total assets. *INV* is equal to inventory divided by total assets. *LOSS* is a dummy variable, which takes the value of 1 if the company suffers losses, and 0 otherwise. *INDUSTRY* is an industrial dummy variable, which is used to control the influence of industry. According to the industrial categorisation of the CSMAR, listed companies can be divided into six industries. Since during the process of sample selection companies in the financial and insurance industries have been excluded, sample companies are therefore taken from five industries, and four industrial dummy variables are included in the model.

In Model (2):

AUDITCOM is a dummy variable, which takes the value of 1 if the company has established an audit committee, and 0 otherwise. *AUDITCOM*PER* is the interac-

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[7] The reasons for choosing the 15 CPA firms with review qualifications published by the CSRC as the standard of large-scale CPA firms are as follows: First, in the Chinese securities market, there is no obvious difference in the number of clients or operating income between the top 10 and the lower ranked firms, nor is there any clear demarcation line to differentiate the top 10 from the others. In addition, because the list of top 10 CPA firms changes every year, it is impossible to obtain a stable list. Second, some firms have more clients that are listed while others have more clients that are not listed. Using a ranked top 10 list of CPA firms cannot take into account the influence of non-listed clients. Furthermore, the CSRC is a governmental regulatory department; the list of CPA firms with review qualifications that it publishes is more authoritative, because it has made all-round consideration of the audit quality and conditions of listed and non-listed clients when it publishes the list.

tion term between audit committee and comprehensive performance of the company. If the audit committee can improve the prudence and independence of auditors, the coefficient of this interaction term is expected to be negative, and positive otherwise. *AUDITCOM*EARNMGT* is the interaction term between audit committee and earnings management. If the audit committee can improve the prudence of auditors, the coefficient of this interaction term is expected to be positive, and negative otherwise.

The definitions of other variables in Model (2) are the same as those in Model (1).

3.3 Descriptive Statistics

Table 1 describes the audit opinions of sample companies. As the table shows, the proportion of clean opinions for the years 2002 to 2004 is 92.02 per cent, while that of unclean opinions is 7.92 per cent. The year 2002 sees the highest proportion of unclean opinions, which accounts for 11.13 per cent, whereas 2003 sees the lowest proportion at 5.09 per cent. For 2004, the proportion of unclean opinions increases to 7.87 per cent.

Table 2 lists the descriptive statistics of the variables. As the table shows, the mean of the proportion of independent directors in listed companies is 30.4 per cent, while the median is 33.3 per cent. The median proportion meets the one-third requirement stipulated by the CSRC. During these three years, on average 42.6 per cent of the companies set up an audit committee. The proportion of companies receiving unclean opinions for the previous year is 8.8 per cent. Of the listed companies, 31.1 per cent have been audited by one of the 15 CPA firms, demonstrating that the audit market in China currently remains quite diversified. Table 2 also indicates that 83.8 per cent of the companies have been listed for more than three

Table 1 Audit Opinions

Year		Clean Opinions	Unclean Opinions			Total
			Unqualified with Explanations	Qualified	Disclaimer of Opinions	
2002	Number	918	79	29	3	1033
	Proportion	88.87%	7.65%	2.81%	0.68%	
2003	Number	1026	35	14	6	1081
	Proportion	94.91%	3.24%	1.30%	0.56%	
2004	Number	1066	48	38	5	1157
	Proportion	92.13%	4.15%	3.28%	0.43%	
Total	Number	3010	162 Sub-total	81 261	18	3271
	Proportion	92.02%	4.95% Sub-total	2.48% 7.98%	0.55%	100%

Table 2 Descriptive Statistics

Variables	N	Mean	Median	Std Dev	Min	Max
OP	3271	0.080	0	0.271	0	1
OUTBD	3271	0.304	0.333	0.075	0	0.667
AUDITCOM	3271	0.426	0	0.495	0	1
LAGOP	3271	0.088	0	0.283	0	1
BIG15	3271	0.311	0	0.463	0	1
EARNMGT	3271	0.185	0	0.388	0	1
AGE	3271	0.838	1	0.369	0	1
BHSHARE	3271	0.094	0	0.293	0	1
LNAT	3271	21.197	21.114	0.913	17.497	26.855
ROE	3271	0.025	0.056	0.264	–7.390	4.414
ROA	3271	0.032	0.033	0.061	–0.267	0.252
CROE	3271	0.043	0.062	0.240	–6.717	1.664
CROA	3271	0.028	0.027	0.057	–0.239	0.235
LEV	3271	0.476	0.482	0.178	0.008	1.049
CR	3271	1.616	1.257	2.026	0.094	55.541
REC	3271	0.089	0.069	0.080	0	0.784
INV	3271	0.149	0.117	0.133	0	0.896
LOSS	3271	0.106	0	0.308	0	1

OP = 1 if the company receives an unclean opinion, and 0 otherwise.
OUTBD = the proportion of independent directors, which is equal to the number of independent directors divided by the total number of directors.
AUDITCOM = 1 if the company has set up an audit committee, and 0 otherwise.
LAGOP = 1 if the company has received an unclean opinion for the previous year, and 0 otherwise.
BIG15 = 1 if the auditor is within the 15 CPA firms with review qualifications, and 0 otherwise.
EARNMGT = 1 if the company has the propensity to manage earnings to avoid losses or for rights offerings, that is, 0 < *ROE* < 1% or 6% < *ROE* < 7%, and 0 otherwise.
AGE = 1 if the company has been listed for more than three years, and 0 otherwise.
BHSHARE = 1 if the company issues B or H shares, and 0 otherwise.
LNAT = the natural logarithm of ending total assets of the company for the current year.
ROE = returns on equity as of the end of the current year, which are equal to net profits divided by net assets.
ROA = returns on total assets as of the end of the current year, which are equal to total profits divided by total assets.
CROE = core returns on equity, which is equal to operating profits divided by net assets.
CROA = core returns on total assets, which is equal to operating profits divided by total assets.
LEV = the asset-liability ratio, which is equal to total liabilities divided by total assets.
CR = current ratio, which is equal to the ratio of ending current assets for the current year divided by current liabilities.
REC = ending accounts receivable for the current year divided by total assets.
INV = ending inventory for the current year divided by total assets.
LOSS = 1 if the company suffers losses, and 0 otherwise.

years, and 9.4 per cent have issued B or H shares. In addition, returns on equity are 2.5 per cent, returns on total assets 3.2 per cent, core returns on equity 4.3 per cent, and core returns on total assets 2.8 per cent; the asset-liability ratio is 47.7 per cent, the current ratio 1.623, the proportion of accounts receivable in total assets 8.9 per cent, and the proportion of inventory in total assets 14.9 per cent. Approximately 10.6 per cent of the companies have suffered losses for the current year.

IV. EMPIRICAL RESULTS AND EXPLANATIONS

4.1 Results of Univariate Analysis

Table 3 lists the results of the univariate analysis. As the table shows, the mean of the proportion of independent directors for companies receiving clean opinions is 30.6 per cent, while that for companies receiving unclean opinions is 28.1 per cent. The former is greater than the latter by 2.5 per cent. The t-value is 4.690 and is significant at the 1 per cent level. The median of the proportion of independent directors for companies receiving clean opinions is 33.3 per cent, while that for companies receiving unclean opinions is 30.80 per cent. The former is greater than the latter by 2.5 per cent. The median test indicates that the Z value is −4.601 and is significant at the 1 per cent level. In other words, both the tests on mean and median values indicate a marked difference in the proportion of independent directors between companies receiving clean opinions and those receiving unclean opinions. Table 3 also shows that 43.5 per cent of the companies receiving clean opinions have set up an audit committee, while only 31.4 per cent of those receiving unclean opinions have done so; the tests on mean and median values show a significant difference at the 1 per cent level between the two groups of companies. This demonstrates that a significant difference exists in the establishment of an independent directorship and audit committee between companies receiving clean opinions and those receiving unclean opinions. The proportion of independent directors and the proportion of companies setting up an audit committee are both higher for companies receiving clean opinions. For companies receiving clean or unclean opinions, the means and medians of their returns on equity, returns on total assets, core returns on equity, core returns on total assets, and comprehensive performance are all significant at the 1 per cent level. No marked differences exist in the proportions of receiving clean or unclean opinions between companies having a propensity to manage earnings to avoid losses or for rights offerings and those without such a propensity. The results of the univariate analysis show that independent directors and audit committees can exert a significant influence on the reporting activities of auditors, and that a higher proportion of independent directors and the establishment of an audit committee can lower the prudence of auditors; thus, companies with a higher proportion of independent directors and with an audit committee are more likely to receive clean opinions. However, the univariate analysis has not controlled influences from other factors. As Table 3 shows, the proportion of clean opinions is higher for companies with better performance. If a company with better performance tends to have more independent directors and is more likely

Table 3 Results of Univariate Analysis

Variables	Clean Opinions (N = 3010)		Unclean Opinions (N = 261)		T-Value	Z-Value
	Mean	Median	Mean	Median		
OUTBD	0.306	0.333	0.281	0.308	4.69***	–4.601***
AUDITCOM	0.435	0	0.314	0	3.80***	–3.793***
ROE	0.049	0.061	–0.248	0.001	6.92***	–16.238***
ROA	0.038	0.037	–0.046	–0.004	15.94***	–17.859***
CROE	0.065	0.067	–0.210	–0.057	7.43***	–16.432***
CROA	0.034	0.031	–0.038	–0.021	16.78***	–17.570***
PER	0.112	0.117	–1.288	–0.677	11.85***	–17.624***
EARNMGT	0.186	0	0.172	0	0.54	–0.544
LAGOP	0.051	0	0.510	1	–14.86***	25.107***
BIG15	0.315	0	0.276	0	1.30	–1.297
AGE	0.832	1	0.912	1	–4.26***	3.377***
BHSHARE	0.093	0	0.107	0	–0.74	0.738
LNAT	21.228	21.137	20.841	20.892	6.61***	–5.550***
LEV	0.467	0.475	0.587	0.606	–9.46***	9.686***
CR	1.639	1.280	1.353	1.030	1.93*	–6.875***
REC	0.088	0.069	0.096	0.067	1.26	0.210
INV	0.151	0.119	0.121	0.092	4.08***	–4.122***
LOSS	0.072	0	0.498	0	–13.58***	21.260***

***, **, and * represent significance levels at 1 per cent, 5 per cent, and 10 per cent, respectively.

OUTBD = the proportion of independent directors, which is equal to the number of independent directors divided by the total number of directors.

AUDITCOM = 1 if the company has set up an audit committee, and 0 otherwise.

PER = comprehensive performance, which is the first principal component of *ROA*, *ROE*, *CROE*, and *CROA*, where *ROE* = returns on equity as of the end of the current year, which are equal to net profits divided by net assets; *ROA* = returns on total assets as of the end of the current year, which are equal to total profits divided by total assets; *CROE* = core returns on equity, which are equal to operating profits divided by net assets; *CROA* = core returns on total assets, which are equal to operating profits divided by total assets.

EARNMGT = 1 if the company has the propensity to manage earnings to avoid losses or for rights offerings, that is, $0 < ROE < 1\%$ or $6\% < ROE < 7\%$, and 0 otherwise.

LAGOP = 1 if the company has received an unclean opinion for the previous year, and 0 otherwise.

BIG15 = 1 if the auditor is one of the 15 CPA firms with review qualifications, and 0 otherwise.

AGE = 1 if the company has been listed for more than three years, and 0 otherwise.

BHSHARE = 1 if the company issues B or H shares, and 0 otherwise.

LNAT = the natural logarithm of ending total assets of the company for the current year.

LEV = the asset-liability ratio, which is equal to total liabilities divided by total assets.

CR = the current ratio, which is equal to ending current assets for the current year divided by current liabilities.

REC = ending accounts receivable for the current year divided by total assets.

INV = ending inventory for the current year divided by total assets.

LOSS = 1 if the company suffers losses for the current year, and 0 otherwise.

to establish an audit committee, the correlations among independent directors, the audit committee, and audit opinions might result from differences in company performance rather than the effects of the independent directors and the audit committee. In this case, the results of the univariate analysis alone cannot explain the correlations, and further logistic regression analyses are required.

As far as other variables in the model are concerned, notable differences are found in the previous year's audit opinions between companies receiving clean opinions and those receiving unclean opinions for the current year. Of the companies receiving clean opinions for the current year, only 5.1 per cent received an unclean opinion for the previous year. In contrast, of those companies receiving unclean opinions for the current year, as high as 51 per cent also received an unclean opinion for the previous year. The mean and median are both statistically significant at the 1 per cent level, indicating that a significantly high proportion of companies receiving unclean opinions for the current year also received unclean opinions for the previous year. Of those companies receiving clean opinions, 31.5 per cent are audited by one of the 15 CPA firms; of those receiving unclean opinions, 27.6 per cent are audited by one of the firms. There is no significant difference between the two. However, 83.2 per cent of the companies receiving clean opinions have been listed for more than three years, while 91.2 per cent of those receiving unclean opinions have been listed for more than three years; thus, a significant difference exists between the two proportions. Whether the company has issued B shares or H shares has no material impact on audit opinions. Among the variables of company characteristics, except for the ratio of accounts receivable to total assets, the others have a remarkable influence on audit opinions, including the asset size, asset-liability ratio, current ratio, and the proportion of inventory in total assets. Companies receiving clean opinions are those in good financial condition with large assets, a low asset-liability ratio, a high current ratio, and a large proportion of inventory in total assets. In other words, the financial conditions of companies receiving unclean opinions are notably different from those of companies receiving clean opinions.

4.2 Results of Logistic Multivariate Analysis

The results of the logistic regression analysis are listed in Table 4 in two columns. The first column shows the regression results for independent directors, while the second shows those for the audit committee. Each column lists the regression results of two models. Model (1) represents the regression results for the interaction term between independent directors (or audit committee) and comprehensive performance,[8] while Model (2) represents the regression results for the interaction term between independent directors (or audit committee) and earnings management. As shown

[8] In Model (1), comprehensive performance refers to the first principal component factor found from the principal component analysis on the four performance indicators, including returns on equity, returns on total assets, core returns on equity, and core returns on total assets. The contribution ratio of this factor is 77.62 per cent.

in the regression results for independent directors, the coefficient of the interaction term between the proportion of independent directors and comprehensive performance in Model (1) is –1.861 and is significant at the 5 per cent level, demonstrating that as the proportion of independent directors increases, the probability of auditors issuing unclean opinions is further increased when the company's performance is deteriorating. The coefficient of the interaction term between independent directors and earnings management in Model (2) is positive and significant at the 5 per cent level, indicating that as the proportion of independent directors increases, auditors become more sensitive to earnings management and are more likely to issue unclean opinions to companies showing earnings management behaviours. As far as regression results for the audit committee are concerned, the coefficients of the interaction terms between audit committee and comprehensive performance or earnings management are not significant. The test results show that independent directors have a positive influence on the reporting activities of auditors, making them more prudent in issuing audit opinions. However, no material influence is found with respect to the effects of an audit committee on auditor reporting activities.

Meanwhile, the regression results in Table 4 also show that when the coefficients for the previous year's audit opinions, the asset-liability ratio, and the current year's loss are significantly positive, the probability that companies receiving an unclean opinion for the previous year will also receive an unclean opinion for the current year is significantly high. Companies with a high asset-liability ratio are more likely to receive an unclean audit opinion, while the possibility that companies suffering losses for the current year will receive an unclean opinion is even higher. The coefficient for the proportion of inventory in total assets is significantly negative, showing that a larger proportion of inventory leads to a lower probability of receiving an unclean opinion. Although the coefficient for the Big 15 auditors is not significant, it is positive. This demonstrates that Big 15 auditors have a tendency to adopt stricter standards in issuing audit opinions. The pseudo R^2 values in all models are above 0.35, and the percent concordant values are all above 88 per cent.

Table 5 contains further test results from the perspective of the voting rights of the ultimate controlling shareholder. The sample companies are divided into two groups at the cut-off point of 50 per cent voting rights, considering that the ultimate controlling shareholder can control the company when his or her voting rights exceed 50 per cent. The regression results in Table 5 indicate that for companies absolutely controlled by the ultimate controlling shareholder (with more than 50 per cent voting rights), the coefficients of the interaction terms with respect to either independent directors or the audit committee are all insignificant. For companies not absolutely controlled by an ultimate controlling shareholder, the coefficient of the interaction term between the proportion of independent directors and comprehensive performance is –2.282 and is significant at the 5 per cent level, while that between independent directors and earnings management is 6.297 and is significant at the 5 per cent level. All tests on coefficients of the interaction terms concerning the audit committee are insignificant. The results show that only in companies not absolutely controlled by an ultimate controlling shareholder are independent direc-

Table 4 Logistic Regression Results

Variables	Independent Directors		Audit Committees	
	Model (1)	Model (2)	Model (1)	Model (2)
Intercept	–1.460	–1.481	–2.410	–2.419
	(0.470)	(0.464)	(0.223)	(0.221)
OUTBD	–3.594	–3.563		
	(0.001)***	(0.002)***		
AUDITCOM			–0.271	–0.093
			(0.157)	(0.624)
PER	0.271	–0.284	–0.251	–0.275
	(0.281)	(0.005)***	(0.015)**	(0.006)***
EARNMGT	0.722	–0.658	0.751	0.933
	(0.001)***	(0.350)	(0.000)***	(0.000)***
*OUTBD*PER*	–1.861			
	(0.022)**			
*OUTBD*EARNMGT*		4.819		
		(0.036)**		
*AUDITCOM*PER*			–0.101	
			(0.458)	
*AUDITCOM*EARNMGT*				–0.585
				(0.183)
LAGOP	2.498	2.510	2.496	2.494
	(0.000)***	(0.000)***	(0.000)***	(0.000)***
BIG15	0.165	0.198	0.185	0.189
	(0.392)	(0.306)	(0.335)	(0.324)
AGE	0.125	0.111	0.101	0.118
	(0.641)	(0.678)	(0.707)	(0.663)
BHSHARE	0.174	0.214	0.199	0.198
	(0.530)	(0.438)	(0.469)	(0.472)
LNAT	–0.132	–0.130	–0.130	–0.135
	(0.171)	(0.175)	(0.174)	(0.160)
LEV	2.105	2.123	2.098	2.132
	(0.000)***	(0.000)***	(0.000)***	(0.000)***
CR	0.020	0.019	0.019	0.018
	(0.583)	(0.614)	(0.620)	(0.625)
REC	0.295	0.249	0.322	0.360
	(0.753)	(0.789)	(0.729)	(0.698)
INV	–2.470	–2.582	–2.500	–2.472
	(0.001)***	(0.001)***	(0.001)***	(0.001)***
LOSS	1.850	1.825	1.836	1.861
	(0.000)***	(0.000)***	(0.000)***	(0.000)***
Industry variables	Control	Control	Control	Control
N	3271	3271	3271	3271
Pseudo R^2	0.359	0.359	0.549	0.355
Percent concordant	88.60%	88.60%	88.30%	88.20%

***, **, and * represent significance levels at 1 per cent, 5 per cent, and 10 per cent, respectively.

Table 4 *Continued*

OUTBD = the proportion of independent directors, which is equal to the number of independent directors divided by the total number of directors.
AUDITCOM = 1 if the company has set up an audit committee, and 0 otherwise.
PER = comprehensive performance, which is the first principal component of *ROA*, *ROE*, *CROE*, and *CROA*, where *ROE* = returns on equity as of the end of the current year, which are equal to net profits divided by net assets; *ROA* = returns on total assets as of the end of the current year, which are equal to total profits divided by total assets. *CROE* = core returns on equity, which are equal to operating profits divided by net assets; *CROA* = core returns on total assets, which are equal to operating profits divided by total assets.
EARNMGT = 1 if the company has the propensity to manage earnings to avoid losses or for rights offerings, that is, $0 < ROE < 1\%$ or $6\% < ROE < 7\%$, and 0 otherwise.
*OUTBD*PER* = interaction term between the proportion of independent directors and comprehensive performance.
*OUTBD*EARNMGT* = interaction term between the proportion of independent directors and earnings management.
*AUDITCOM*PER* = interaction term between audit committee and comprehensive performance.
*AUDITCOM*EARNMGT* = interaction term between audit committee and earnings management
LAGOP = 1 if the company has received an unclean opinion for the previous year, and 0 otherwise.
BIG15 = 1 if the auditor is one of the 15 CPA firms with review qualifications, and 0 otherwise.
AGE = 1 if the company has been listed for more than three years, and 0 otherwise.
BHSHARE = 1 if the company issues B or H shares, and 0 otherwise.
LNAT = the natural logarithm of ending total assets of the company for the current year.
LEV = the asset-liability ratio, which is equal to total liabilities divided by total assets.
CR = the current ratio, which is equal to ending current assets for the current year divided by current liabilities.
REC = accounts receivable as of the end of the current year divided by total assets.
INV = inventory as of the end of the current year divided by total assets.
LOSS = 1 if the company suffers losses, and 0 otherwise.

tors able to play their role in generating a positive influence on the reporting activities of the auditors.

Currently, the influence of audit tenure on the reporting activities of auditors raises concerns from the regulatory departments as well as from academia. The regulatory departments are worried that long audit tenure might affect the independence of auditors. As a result, the Sarbanes-Oxley Act (SOX), which was passed in 2002 in the United States, demands the establishment of an auditor switch system and requires that audit partners and review partners be changed every five years. The China Securities Regulatory Commission also issued the "Regulations on the Regular Change of Signing Certified Public Accountants Engaging in Stocks and Futures Audit Services" on 8 October 2003. These regulations provide that (1) the

Table 5 Regression Results by Voting Rights of the Ultimate Controlling Shareholder

Panel A: Voting rights of the ultimate controlling shareholder >50%

Variables	Model (1)	Model (2)	Model (3)	Model (4)
Intercept	–6.863	–6.745	–7.330	–7.293
	(0.073)*	(0.079)*	(0.053)*	(0.056)*
OUTBD	–2.715	–2.740		
	(0.182)	(0.219)		
AUDITCOM			–0.042	0.105
			(0.897)	(0.763)
PER	0.076	–0.148	–0.209	–0.156
	(0.904)	(0.550)	(0.433)	(0.529)
EARNMGT	0.541	0.227	0.598	0.863
	(0.144)	(0.851)	(0.106)	(0.041)
*OUTBD*PER*	–0.764			
	(0.701)			
*OUTBD*EARNMGT*		1.138		
		(0.783)		
*AUDITCOM*PER*			0.189	
			(0.530)	
*AUDITCOM*EARNMGT*				–0.998
				(0.221)
LAGOP	2.438	2.457	2.510	2.499
	(0.000)***	(0.000)***	(0.000)***	(0.000)***
BIG15	0.626	0.635	0.588	0.588
	(0.053)*	(0.049)**	(0.066)*	(0.067)*
AGE	0.045	0.029	0.008	0.055
	(0.909)	(0.941)	(0.985)	(0.767)
BHSHARE	–0.107	–0.081	0.006	–0.027
	(0.825)	(0.868)	(0.989)	(0.953)
LNAT	0.074	0.070	0.066	0.055
	(0.678)	(0.691)	(0.710)	(0.767)
LEV	1.969	1.952	1.835	1.932
	(0.094)*	(0.096)*	(0.117)	(0.097)*
CR	0.095	0.089	0.081	0.098
	(0.540)	(0.567)	(0.593)	(0.513)
REC	2.284	2.245	2.280	2.381
	(0.169)	(0.176)	(0.169)	(0.153)
INV	–1.634	–1.657	–1.619	–1.618
	(0.255)	(0.250)	(0.257)	(0.256)
LOSS	1.955	1.942	1.976	1.970
	(0.001)***	(0.001)***	(0.001)***	(0.001)***
Industry variables	Control	Control	Control	Control
N	1296	1296	1296	1296
Pseudo R^2	0.279	0.279	0.277	0.279
Percent concordant	85.60%	85.40%	85.40%	85.90%

Table 5 *Continued*

Panel B: Voting rights of the ultimate controlling shareholder ≤50%

Variables	Model (1)	Model (2)	Model (3)	Model (4)
Intercept	0.226	–0.062	–1.057	–1.150
	(0.930)	(0.980)	(0.670)	(0.644)
OUTBD	–4.325	–4.086		
	(0.001)***	(0.002)***		
AUDITCOM			–0.394	–0.162
			(0.099)*	(0.482)
PER	0.403	–0.275	–0.214	–0.261
	(0.155)	(0.015)**	(0.057)*	(0.021)**
EARNMGT	0.834	–1.012	0.851	0.999
	(0.002)***	(0.253)	(0.001)***	(0.001)***
*OUTBD*PER*	–2.282			
	(0.014)**			
*OUTBD*EARNMGT*		6.297		
		(0.025)**		
*AUDITCOM*PER*			–0.205	
			(0.197)	
*AUDITCOM*EARNMGT*				–0.453
				(0.392)
LAGOP	2.506	2.496	2.464	2.458
	(0.000)***	(0.000)***	(0.000)***	(0.000)***
BIG15	–0.058	–0.004	0.013	0.0192
	(0.818)	(0.986)	(0.957)	(0.938)
AGE	0.070	0.098	0.084	0.113
	(0.852)	(0.794)	(0.822)	(0.763)
BHSHARE	0.359	0.355	0.339	0.324
	(0.300)	(0.309)	(0.329)	(0.347)
LNAT	–0.198	–1.880	–0.192	–0.194
	(0.106)	(0.124)	(0.112)	(0.109)
LEV	2.237	2.276	2.318	2.365
	(0.001)***	(0.001)***	(0.001)***	(0.001)***
CR	0.011	0.011	0.011	0.011
	(0.784)	(0.791)	(0.781)	(0.780)
REC	–0.339	–0.352	–0.280	–0.242
	(0.775)	(0.764)	(0.812)	(0.836)
INV	–2.761	2.923	–2.905	–2.852
	(0.004)***	(0.002)***	(0.002)***	(0.003)***
LOSS	1.959	1.938	1.920	1.968
	(0.000)***	(0.000)***	(0.000)***	(0.000)***
Industry variables	Control	Control	Control	Control
N	1975	1975	1975	1975
Pseudo R^2	0.393	0.392	0.386	0.386
Percent concordant	89.80%	89.90%	89.70%	89.50%

***, **, and * represent significance levels at 1 per cent, 5 per cent, and 10 per cent, respectively.

Table 5 *Continued*

OUTBD = the proportion of independent directors, which is equal to the number of independent directors divided by the total number of directors.
AUDITCOM = 1 if the company has set up an audit committee, and 0 otherwise.
PER = comprehensive performance, which is the first principal component of *ROA*, *ROE*, *CROE*, and *CROA*, where *ROE* = returns on equity as of the end of the current year, which are equal to net profits divided by net assets; *ROA* = returns on total assets as of the end of the current year, which are equal to total profits divided by total assets. *CROE* = core returns on equity, which are equal to operating profits divided by net assets; *CROA* = core returns on total assets, which are equal to operating profits divided by total assets.
EARNMGT = 1 if the company has the propensity to manage earnings to avoid losses or for rights offerings, that is, $0 < ROE < 1\%$ or $6\% < ROE < 7\%$, and 0 otherwise.
*OUTBD*PER* = interaction term between the proportion of independent directors and comprehensive performance.
*OUTBD*EARNMGT* = interaction term between the proportion of independent directors and earnings management.
*AUDITCOM*PER* = interaction term between audit committee and comprehensive performance.
*AUDITCOM*EARNMGT* = interaction term between audit committee and earnings management.
LAGOP = 1 if the company has received an unclean opinion for the previous year, and 0 otherwise.
BIG15 = 1 if the auditor is one of the 15 CPA firms with review qualifications, and 0 otherwise.
AGE = 1 if the company has been listed for more than three years, and 0 otherwise.
BHSHARE = 1 if the company issues B or H shares, and 0 otherwise.
LNAT = the natural logarithm of ending total assets of the company for the current year.
LEV = the asset-liability ratio, which is equal to total liabilities divided by total assets.
CR = the current ratio, which is equal to ending current assets for the current year divided by current liabilities.
REC = accounts receivable as of the end of the current year divided by total assets.
INV = inventory as of the end of the current year divided by total assets.
LOSS = 1 if the company suffers losses, and 0 otherwise.

signing certified public accountant shall not offer audit services to the same organisation for more than five consecutive years; (2) the signing certified public accountant offering audit services to an IPO company shall not continuously offer audit services for more than two complete accounting years after the company has been listed; (3) the signing certified public accountant shall not offer audit services to the same organisation within the two years after the expiration of the five-year tenure with the company; and (4) apart from the signing certified public accountant, any other officers in the CPA firm who may be in charge of the audit project should be changed regularly according to the relevant regulations applicable to the regular change of the signing certified public accountant. Therefore, in Table 6 we carry out tests by different audit tenures and try to determine whether the influence of independent

Table 6 Regression Results by Different Auditor Tenure

Panel A: Auditor tenure >5

Variables	Model (1)	Model (2)	Model (3)	Model (4)
Intercept	2.796	2.849	3.320	3.125
	(0.453)	(0.442)	(0.370)	(0.396)
OUTBD	1.494	0.988		
	(0.467)	(0.603)		
AUDITCOM			–0.141	0.166
			(0.654)	(0.579)
PER	–0.333	–0.330	–0.289	–0.322
	(0.452)	(0.059)*	(0.116)	(0.065)*
EARNMGT	0.387	–0.306	0.351	0.741
	(0.297)	(0.818)	(0.344)	(0.081)*
*OUTBD*PER*	0.010			
	(0.994)			
*OUTBD*EARNMGT*		2.261		
		(0.585)		
*AUDITCOM*PER*			–0.134	
			(0.529)	
*AUDITCOM*EARNMGT*				–1.356
				(0.117)
LAGOP	2.376	2.386	2.336	2.335
	(0.000)***	(0.000)***	(0.000)***	(0.000)***
BIG15	0.677	0.687	0.677	0.706
	(0.030)**	(0.028)**	(0.030)**	(0.024)**
AGE	1.509	1.487	1.418	1.508
	(0.248)	(0.257)	(0.280)	(0.245)
BHSHARE	–0.006	0.022	–0.034	–0.018
	(0.990)	(0.965)	(0.945)	(0.972)
LNAT	–0.490	–0.484	–0.485	–0.489
	(0.004)***	(0.004)***	(0.004)***	(0.004)***
LEV	2.484	2.499	2.551	2.622
	(0.022)**	(0.021)**	(0.020)	(0.018)**
CR	–0.092	–0.088	–0.094	–0.106
	(0.596)	(0.593)	(0.603)	(0.569)
REC	–1.127	–1.129	–1.138	–1.096
	(0.475)	(0.470)	(0.471)	(0.484)
INV	–2.427	–2.421	–2.435	–2.340
	(0.049)**	(0.049)**	(0.048)**	(0.056)*
LOSS	1.604	1.595	1.535	1.590
	(0.001)***	(0.001)***	(0.001)***	(0.001)***
Industry variables	Control	Control	Control	Control
N	1416	1416	1416	1416
Pseudo R^2	0.340	0.341	0.340	0.344
Percent concordant	87.70%	87.60%	87.70%	88.20%

Table 6 *Continued*

Panel B: Auditor tenure ≤5

Variables	Model (1)	Model (2)	Model (3)	Model (4)
Intercept	–4.670	–4.156	–6.227	–6.222
	(0.066)*	(0.103)	(0.011)**	(0.011)**
OUTBD	–6.345	–6.784		
	(0.000)***	(0.000)***		
AUDITCOM			–0.393	–0.269
			(0.112)	(0.289)
PER	0.581	–0.269	–0.249	–2.645
	(0.068)*	(0.034)**	(0.057)*	(0.037)**
EARNMGT	0.953	–0.993	1.012	1.131
	(0.001)***	(0.252)	(0.000)***	(0.000)***
*OUTBD*PER*	–2.955			
	(0.007)***			
*OUTBD*EARNMGT*		7.003		
		(0.016)**		
*AUDITCOM*PER*			–0.078	
			(0.679)	
*AUDITCOM*EARNMGT*				–0.375
				(0.483)
LAGOP	2.601	2.607	2.590	2.590
	(0.000)***	(0.000)***	(0.000)***	(0.000)***
BIG15	–0.046	–0.039	–0.032	–0.029
	(0.857)	(0.879)	(0.899)	(0.908)
AGE	0.178	0.185	0.120	0.130
	(0.536)	(0.525)	(0.679)	(0.652)
BHSHARE	0.324	0.363	0.363	0.355
	(0.346)	(0.291)	(0.285)	(0.293)
LNAT	0.064	0.045	0.066	0.063
	(0.594)	(0.705)	(0.577)	(0.594)
LEV	1.995	1.953	2.002	2.026
	(0.004)***	(0.004)***	(0.003)***	(0.003)***
CR	0.035	0.031	0.036	0.036
	(0.352)	(0.417)	(0.345)	(0.341)
REC	0.094	0.506	0.815	0.858
	(0.420)	(0.682)	(0.501)	(0.450)
INV	–2.642	–2.737	–2.698	–2.677
	(0.009)***	(0.007)***	(0.007)***	(0.008)***
LOSS	2.037	2.072	1.992	2.011
	(0.000)***	(0.000)***	(0.000)***	(0.000)***
Industry variables	Control	Control	Control	Control
N	1855	1855	1855	1855
Pseudo R^2	0.394	0.393	0.378	0.378
Percent concordant	89.90%	90.10%	89.30%	89.20%

***, **, * represent significance levels at 1 per cent, 5 per cent, and 10 per cent, respectively.

Table 6 *Continued*

OUTBD = the proportion of independent directors, which is equal to the number of independent directors divided by the total number of directors.
AUDITCOM = 1 if the company has set up an audit committee, and 0 otherwise.
PER = comprehensive performance, which is the first principal component of *ROA*, *ROE*, *CROE*, and *CROA*, where *ROE* = returns on equity as of the end of the current year, which are equal to net profits divided by net assets; *ROA* = returns on total assets as of the end of the current year, which are equal to total profits divided by total assets; *CROE* = core returns on equity, which are equal to operating profits divided by net assets; *CROA* = core returns on total assets, which are equal to operating profits divided by total assets.
EARNMGT = 1 if the company has the propensity to manage earnings to avoid losses or for rights offerings, that is, $0 < ROE < 1\%$ or $6\% < ROE < 7\%$, and 0 otherwise.
*OUTBD*PER* = interaction term between the proportion of independent directors and comprehensive performance.
*OUTBD*EARNMGT* = interaction term between the proportion of independent directors and earnings management.
*AUDITCOM*PER* = interaction term between audit committee and comprehensive performance.
*AUDITCOM*EARNMGT* = interaction term between audit committee and earnings management.
LAGOP = 1 if the company has received an unclean opinion for the previous year, and 0 otherwise.
BIG15 = 1 if the auditor is one of the 15 CPA firms with review qualifications, and 0 otherwise.
AGE = 1 if the company has been listed for more than three years, and 0 otherwise.
BHSHARE = 1 if the company issues B or H shares, and 0 otherwise.
LNAT = the natural logarithm of ending total assets of the company for the current year.
LEV = the asset-liability ratio, which is equal to total liabilities divided by total assets.
CR = the current ratio, which is equal to ending current assets for the current year divided by current liabilities.
REC = accounts receivable as of the end of the current year divided by total assets.
INV = inventory as of the end of the current year divided by total assets.
LOSS = 1 if the company suffers losses, and 0 otherwise.

directors and audit committees on the reporting activities of auditors differs between long and short audit tenures.

Both SOX and the China Securities Regulatory Commission require that auditors should be changed after five years, suggesting that regulatory departments consider "exceeding five years" to be a symbol of long audit tenure. We therefore take five years as the line of demarcation, and divide sample companies into two groups: one with auditor tenure of five years or less (the short tenure group) and the other with auditor tenure exceeding five years (the long tenure group). As Table 6 shows, for the long tenure group, the coefficients of interaction terms for independent directors and audit committee are all insignificant. For the short tenure group, the coefficient of the interaction term between independent directors and comprehensive

performance is significantly negative, while that between independent directors and earnings management is significantly positive. These results demonstrate that independent directors mainly influence the reporting activities of auditors with short tenure. Thus, the increase in the proportion of independent directors can enhance the independence of the board of directors and have a positive influence on auditors with short tenure.

4.3 Logistic Regression Results by Time Series

In the previous section, we use a cross-sectional approach to test the influence of different proportions of independent directors and the establishment of an audit committee on the reporting and decision-making activities of auditors. To test the reliability of the results, we further analyse the difference in audit opinions before and after the establishment of an independent directorship or an audit committee. Based on the cross-sectional regression samples, we select companies that established an independent directorship or an audit committee in 2002, and test the difference in audit opinions three years before and after the establishment; in other words, the sample falls from the years 1999 to 2004. Since data for 1998 are required in the regression analysis, and all data of the variables for the sample companies should be available, companies listed after 1998 and with missing variables are excluded. Thus, the number of sample companies establishing an independent directorship in 2002 is 394, with 2364 total for the six years; the number of sample companies setting up an audit committee is 112, with 672 total for the six years. Of the 2364 sample companies that have established an independent directorship, 1027 received clean opinions during the three years before the establishment, while 1076 received clean opinions during the three years afterwards; 155 companies received unclean opinions during the three years before the establishment, while 106 received unclean opinions afterwards. Of the 672 sample companies that established an audit committee, 298 received clean opinions during the three years before the establishment, while 309 received clean opinions during the three years afterwards; 38 companies received unclean opinions before the establishment, while 27 received unclean opinions afterwards.

Table 7 lists the analysis results by time series. In Table 7, *TOUTBD* and *TAUDITCOM* are dummy variables for setting up an independent directorship and an audit committee, respectively. Both take the value of 1 if the independent directorship or audit committee has been established for three years, and 0 otherwise. According to Table 7, the coefficients for comprehensive performance in all models are still significantly negative, while the coefficient for earnings management in testing the model of independent directorship efficiency is significantly positive. This shows that from the perspective of the long-term time series, the relationships among reporting activities of auditors, comprehensive performance, and earnings management are the same as those found in cross-sectional analyses: The probability of auditors issuing an unclean opinion increases when company performance is deteriorating; those companies managing earnings are also more likely to receive an unclean opinion. Table 7 also shows that the coefficient of the interaction term

Table 7 Results of Logistic Regression Analysis by Time Series

Variable	Independent Directors		Audit Committees	
	Model (1)	Model (2)	Model (1)	Model (2)
Intercept	–6.683	–6.391	–12.127	–12.114
	(0.002)***	(0.003)***	(0.017)**	(0.017)**
TOUTBD	–0.580	–0.364		
	(0.005)***	(0.081)*		
TAUDITCOM			0.173	0.102
			(0.716)	(0.834)
PER	–0.615	–1.040	–0.785	–0.673
	(0.011)**	(0.000)***	(0.041)**	(0.002)***
EARNMGT	0.512	0.523	–0.236	–0.295
	(0.018)**	(0.047)**	(0.667)	(0.662)
*TOUTBD*PER*	–0.616			
	(0.017)**			
*TOUTBD*EARNMGT*		–0.164		
		(0.702)		
*TAUDITCOM*PER*			0.130	
			(0.727)	
*TAUDITCOM*EARNMGT*				0.206
				(0.848)
LAGOP	2.456	2.453	3.606	3.606
	(0.000)***	(0.000)***	(0.000)***	(0.000)***
BIG15	0.191	0.177	0.335	0.338
	(0.318)	(0.356)	(0.433)	(0.429)
AGE	–0.403	–0.492	–0.725	–0.694
	(0.096)*	(0.043)**	(0.203)	(0.214)
BHSHARE	0.090	0.045	0.266	0.293
	(0.749)	(0.875)	(0.617)	(0.583)
LNAT	0.164	0.152	0.480	0.450
	(0.109)	(0.136)	(0.048)**	(0.047)**
LEV	0.130	0.107	–2.951	–2.959
	(0.596)	(0.658)	(0.001)***	(0.002)***
CR	–0.002	–0.002	–0.003	–0.003
	(0.472)	(0.551)	(0.776)	(0.773)
REC	1.424	1.303	3.420	3.454
	(0.005)***	(0.009)***	(0.012)	(0.011)
INV	–0.946	–0.838	–1.987	–2.037
	(0.007)***	(0.015)**	(0.030)**	(0.025)**
LOSS	1.180	1.002	1.945	2.038
	(0.000)***	(0.000)***	(0.001)***	(0.002)***
Industry variables	Control	Control	Control	Control
N	2364	2364	672	672
Pseudo R^2	0.317	0.314	0.456	0.457
Percent concordant	86.80%	86.70%	93.50%	93.30%

***, **, and * represent significance levels at 1 per cent, 5 per cent, and 10 per cent, respectively.

Table 7 *Continued*

TOUTBD = 1 if the company has set up an independent directorship for three years, and 0 otherwise.
TAUDITCOM = 1 if the company has set up an audit committee for three years, and 0 otherwise.
PER = comprehensive performance, which is the first principal component of *ROA*, *ROE*, *CROE*, and *CROA*, where *ROE* = returns on equity as of the end of the current year, which are equal to net profits divided by net assets; *ROA* = returns on total assets as of the end of the current year, which are equal to total profits divided by total assets; *CROE* = core returns on equity, which are equal to operating profits divided by net assets; *CROA* = core returns on total assets, which are equal to operating profits divided by total assets.
EARNMGT = 1 if the company has the propensity to manage earnings to avoid losses or for rights offerings, that is, $0 < ROE < 1\%$ or $6\% < ROE < 7\%$, and 0 otherwise.
*TOUTBD*PER* = interaction term between *TOUTBD* and *PER*.
*TOUTBD*EARNMGT* = interaction term between *TOUTBD* and *EARNMGT*.
*TAUDITCOM*PER* = interaction term between *TAUDITCOM* and *PER*.
*TUDITCOM*EARNMGT* = interaction term between *TAUDITCOM* and *EARNMGT*.
LAGOP = 1 if the company has received an unclean opinion for the previous year, and 0 otherwise.
BIG15 = 1 if the auditor is one of the 15 CPA firms with review qualifications, and 0 otherwise.
AGE = 1 if the company has been listed for more than three years, and 0 otherwise.
BHSHARE = 1 if the company issues B or H shares, and 0 otherwise.
LNAT = the natural logarithm of ending total assets of the company for the current year.
LEV = the asset-liability ratio, which is equal to total liabilities divided by total assets.
CR = the current ratio, which is equal to ending current assets for the current year divided by current liabilities.
REC = accounts receivable as of the end of the current year divided by total assets.
INV = inventory as of the end of the current year divided by total assets.
LOSS = 1 if the company suffers losses, and 0 otherwise.

between independent directors and comprehensive performance is significantly negative, while that between independent directors and earnings management is insignificant; also, the coefficients of interaction terms with audit committee are both insignificant. Thus, the regression results by time series demonstrate that independent directors influence the reporting activities of auditors. After the establishment of an independent directorship, the probability that auditors will issue an unclean opinion further increases when comprehensive performance is deteriorating.

V. CONCLUSIONS AND LIMITATIONS

We select 3271 A-share companies from the years 2002 to 2004 as the research subjects, and study the influence of independent directors and audit committees on the reporting activities of auditors. We find that as the proportion of independent

directors increases, the probability that auditors will issue an unclean opinion is further increased when the company's performance is deteriorating; the same results are found when the company shows earnings management behaviours. We also find that auditors with short tenure are vulnerable to dismissal and need external support. Therefore, whereas independent directors have a significant influence on the reporting activities of auditors with short tenure, no marked impact is found on the reporting activities of auditors with long tenure. Moreover, we find from the comparative study on the establishment of an independent directorship that after one is established, the probability that auditors will issue an unclean opinion increases when company performance is deteriorating. This conclusion demonstrates that establishing an independent directorship has a positive influence on the reporting activities of auditors, and is beneficial for enhancing their independence and prudence, thus leading to stricter conditions that they should follow when issuing clean opinions. However, we find no positive influence of the audit committee on audit reporting. This result indicates that the regulatory departments should continue to strengthen the functions of audit committees so as to give full play to their positive effects and to improve the quality of financial reports.

Nevertheless, it should be noted that this paper has not conducted research on issues at a deeper level, such as the composition, specialty, and diligence of independent directors and the audit committee. Research on these issues could lead to better understanding of how changes in corporate governance structure, such as an independent directorship and audit committee, influence the reporting activities of auditors.

REFERENCES

Please refer to pp. 24–26.