

## 客户重要性与审计质量\* ——来自中国上市公司的经验证据

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### 摘要

本文考察了在法律责任加重前后,客户重要性与盈余管理之间的关系。以我国证券市场2002和2003年的上市公司为样本,在控制了其他变量的影响后,研究发现在法律责任加重以后:1、随着客户重要性的增加,审计师会更加谨慎,进而会抑制公司管理当局的盈余管理行为;2、相对于规模较大的事务所而言,在规模较小的事务所,客户重要性对审计师的影响仍然存在,即小事务所的审计师为了寻租会允许客户存在一定的盈余管理空间;但是,客户重要性对小事务所的影响还是小于小事务所对盈余管理的抑制作用,表明事务所审计质量普遍有所提高。3、本研究也发现,审计师允许客户管理当局盈余管理的方向是不对称的,审计师能够注意管理当局进行的负向盈余管理行为,却不能控制公司正向盈余管理的行为,可能出现了与国外盈余管理不一致的特有现象。

关键词:客户重要性、审计质量、盈余管理、法律责任

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## 一、问题的提出

客户重要性对盈余管理抑制作用的研究，随着安然等一系列财务丑闻的发生和《萨班斯—奥克斯利法案》（2002）的出台，再次成为国内外学术界、实务界、监管者关注的一个重点。为了防止客户重要性对审计质量产生不利影响，《萨班斯—奥克斯利法案》201条款和202条款规定<sup>4</sup>，禁止和限制向同一客户提供非审计服务。在国内的早期，事务所及审计师的法律责任较轻，主要承担行政责任与刑事责任，民事责任由于操作性问题无法实施<sup>5</sup>，2002年实行的《最高人民法院关于受理证券市场因虚假陈述引发的民事侵权纠纷案件有关问题的通知》规定：“人民法院受理的虚假陈述民事赔偿案件……，须经中国证券监督管理委员会及其派出机构调查并作出生效处罚决定。当事人依据查处结果作为提起民事诉讼事实依据的，人民法院方予以受理”。此通知对会计师事务所民事责任的实施规定了附加条件，因而影响有限<sup>6</sup>，造成法院无法有效受理中小股东要求索赔的案件，如四川的红光实业案等。随着《最高人民法院关于受理证券市场因虚假陈述引发的民事赔偿案件的若干规定》（最高人民法院司法解释[2003]2号，以下简称“规定”）在2003年2月1日的施行，才开始真正打开审计民事诉讼的大门。该规定第七条规定，会计师事务所、律师事务所、资产评估机构等专业中介机构可以成为虚假民事陈述证券民事赔偿案件的被告；第二十四条规定，专业中介服务机构及其直接责任人违反证券法第一百六十一条和第二百零二条的规定虚假陈述，给投资人造成损失的，就其负有责任的部分承担赔偿责任；第三十条规定，虚假陈述行为人在证

<sup>4</sup> 相关的具体规定是：第201条款规定：自按照《2002年萨班斯—奥克斯利法案》101条款建立的会计师事务所会计监督理事会开始运行之日起180天内，在进行审计的同时，还向该发行人提供任何非审计服务（共9类非审计服务），该行为非法；注册的会计师事务所可以从事包括税收服务在内的任何9类非审计服务以外的各项服务，只要发行人的审计委员会根据（i）小节的规定预先批准了该业务。第202条款规定：在提供非审计服务的财务年度内，为发行人提供的所有此类非审计服务（除201条款规定的9类非审计服务外）的金额总计不超过发行人支付给审计师的收入总额的5%。

<sup>5</sup> 对于会计师事务所的民事责任，一些相关规定是：《中华人民共和国注册会计师法》（1993）第四十二条规定，会计师事务所违反本法规定，给委托人、其他利害关系人造成损失的，应当依法承担赔偿责任。《证券法》第二百零二条规定“为证券的发行、上市或者证券交易活动出具审计报告、资产评估报告或者法律意见书等文件的专业机构，就其所应负责的内容弄虚作假的，……造成损失的，承担连带赔偿责任”。

<sup>6</sup> 前述规定无法提供有效的投资者保护，尤其是民事赔偿责任的缺失，导致司法部门无法有效受理此类案件，很多中小投资者损失惨重，比如四川的红光实业案、大庆联谊案等等，而相关责任人却没有付出应有的赔偿。这一系列案件，都或多或少地与事务所的低审计质量分不开。

券交易市场承担民事赔偿责任的范围，以投资人因虚假陈述而实际发生的损失为限。这样，就为投资者索赔提供了法律规定，加重了审计师利用客户盈余管理机会寻租的成本，增强了审计师对盈余管理的抑制作用。本文目的就是考察在法律责任加重前后，客户重要性对事务所审计质量的影响状况。

到目前为止，客户重要性对盈余管理的影响，也就是经济依赖性 (economic dependence) 问题，国外文献仍未取得共识，有正反两面的观点。两种观点孰优孰劣，尚未定论 (Prawitt, 2000)。国外研究的结论是以法律较为完善、市场较为诚信等为暗含前提的，而我国市场制度的不完善、相关法律规定的逐年变迁、市场参与者诚信的缺损 (中国企业家调查系统, 2002) 等，就直接影响到国外结论在我国的适用性。由于会计制度本身是一个基于经济公正 (economic equality) 与公司效率的二元价值体系 (陈汉文等, 2005)，法律规定等的逐年变迁就影响着盈余管理各方的成本效益计算及其在寻租博弈中的行为，进而影响租金分配格局。因此，随着制度环境的变化，研究结论的稳定性也值得斟酌。这也值得我们持续性地实证检验。

本文考察了审计师法律责任加重前后，客户重要性与盈余管理之间的关系。以我国证券市场 2002 和 2003 年的上市公司为样本，在控制了其他变量的影响后，研究发现在法律责任加重以后：1、随着客户重要性的增加，审计师可能会更加谨慎，进而会抑制公司管理当局的盈余管理行为；2、相对于规模较大的事务所而言，在规模较小的事务所，客户重要性对审计师的影响仍然存在，即小事务所的审计师为了寻租会允许客户存在一定的盈余管理空间；但是，客户重要性对小事务所的影响还是小于小事务所对盈余管理的抑制作用，表明事务所审计质量普遍有所提高。3、本研究也发现，审计师允许客户管理当局盈余管理的方向是不对称的，审计师能够注意管理当局进行的负向盈余管理行为，却不能控制公司正向盈余管理的行为，可能出现了与国外盈余管理不一致的特有现象。

本文的贡献在于：(1) 研究了在法律责任加重前后，客户重要性对审计师行为的影响，丰富了国内在这个方面的文献；(2) 研究发现了审计师允许客户管理当局盈余管理的方向是不对称的，审计师能够注意管理当局进行的负向盈余管理行为，却不能控制公司正向盈余管理的行为，出现了与国外盈余管理不一致的特有现象。

本文后面部分的安排如下：第二部分是文献回顾与研究问题；第三部分是研究方法与变量设定；第四部分是样本选择与描述性统计；第五部分是实证结果与分析；第六部分是进一步分析与稳健性测试；第七部分是研究结论与局限。

## 二、文献回顾与研究假设

### (一) 文献回顾

围绕客户重要性与盈余管理的关系问题，历来就存在正反两方面的看法，且都得到理论和实证的支持。同时，由于现有文献对客户重要性的衡量主要是基于审计费用、非审计服务费用、单个客户资产规模或销售规模占事务所所审客户资产规模或销售规模总额的比例等角度来考虑的，因此，下面我们从这些角度对正反两方面的观点和证据进行综述。

#### 1、客户重要性与审计质量负相关

这种观点认为客户重要性会导致审计独立性下降，进而会损害审计质量。DeAngelo (1981b) 认为客户与事务所之间是一种双边垄断关系 (bilateral monopoly)，审计师为留住客户，可能会损害独立性而签发对客户有利的审计意见。由于大客户的审计费用等较高，审计师对客户的财务依赖性会影响审计师的独立性 (Mautz and Sharaf, 1961; Cohen Commission (AICPA), 1978; Reynolds and Franchis, 2001)，进而影响审计师对盈余管理的抑制作用。美国证券交易委员会 (SEC) 和科恩委员会 (Cohen Commission) 认为由于通过低价揽客产生的后期应从客户那里收取的账款，类似于未收的审计费用，从而对客户形成财务依赖 (financial dependence)，易损害审计的独立性，包括对盈余管理的抑制作用。国际会计师联合会 (IFAC) 职业道德委员会于 2000 年 6 月完成的 IFAC 职业道德守则修订征求意见稿，突出强调了“自利风险”，认为来源于某客户的收入所占比重过大是产生自利风险的重要来源。另外，DeAngelo (1981b) 认为即使由于市场的有效性、事务所规模及声誉的抵押品属性等，低价揽客是对审计市场竞争性的反应，不会影响审计的独立性，但也认为审计独立性的最优水平会低于完全独立 (perfect independence)。同时，美国证券交易委员会 (SEC) 及部分学者认为，若审计师在审计服务之外，对同一客户另外提供非审计服务，不但提高了审计师对特定客户的财务依赖度，且由于非审计服务往往涉及管理职能，将有损审计师的独立性 (Simunic, 1984; Parkash and Venable, 1993; Firth, 1997)，进而影响对盈余管理的抑制作用。

在实证研究方面，也有一些文献支持非审计服务对审计质量 (包括盈余管理) 有负面影响的观点。由于咨询服务被视为另一种经济依赖，Wines (1994) 的研究发现在非审计业务导致的经济依赖性的作用下，审计人员对客户出具保留意见性质审计报告的倾向有所降低。Barkess and Simnett (1994) 在澳大利亚的资本市场发现，在委托客户增加的同时，非审计业务的购买需求也在增加，而这削弱了审计人员的审计独立性，进而影响对盈余管理的抑制作用。Gore *et al.* (2001) 则以英国的资料发现，非审计服务的提供与管理当

局盈余管理正相关。此外，Bazerman *et al.* (1997) 及 Beeler and Hunton (2001) 则以实验的方式，发现提供非审计服务对审计师的决策有负面影响。Frankel *et al.* (2002) 发现，非审计费用所占的比例越大，审计师允许管理当局盈余管理的幅度越大；并且发现，在费用披露日，非审计费用与公司股价反应存在负向关系。

## 2、客户重要性与审计质量正相关

支持客户重要性与审计质量正相关的观点和证据主要来自于职业界和部分学者。他们认为在现有的法律环境下，审计师承担相当大的法律责任，非审计服务的提供不会影响审计师的独立性，反而可能使审计师能进一步深入了解客户的营运方式及业务流程，提升其专业能力，进而提升发现财务报告舞弊或错误的能力 (Antle *et al.*, 1997; Pitt and Birenbaum, 1997)。DeAngelo (1981b) 认为由于市场的有效性、事务所规模及声誉的抵押品属性等，低价揽客是对审计市场竞争性的反应，不会影响审计的独立性。此外，也有学者认为非审计服务也可以增加审计师在声誉资本 (reputation capital) 的投资 (Arruñada, 1999; Dopuch *et al.*, 2001)，因此，同时提供非审计服务，反而有助于提升审计质量。

在实证方面，此观点得到了许多实证文献的支持。例如 Palmrose (1986)、Abdel-khalik (1990) 及 Davis *et al.* (1992) 的实证结果并未支持 Simunic (1984) 所推论的“因知识外溢效应，而增加对受审者财务的依赖度”。Parkash and Venable (1993) 及 Firth (1997) 分别以美国及英国的资料进行分析，发现因代理成本而要求较高审计质量的公司，相对不会向提供审计服务的事务所购买非审计服务。Frankel *et al.*<sup>7</sup> (2002) 发现审计费用越高则对管理当局盈余管理行为越有抑制的作用。随后的 Ashbaugh *et al.* (2003) 的研究发现 Frankel *et al.* (2002) 的研究结果并不稳健 (robust)，受到研究设计的影响较大，该研究并未发现非审计服务对审计独立性有负面影响。Defond *et al.* (2002) 则是从非审计服务及审计费用的大小，是否影响审计师对持续经营不确定性客户签发修正式无保留意见的决策，探讨其对审计独立性的影响。结果发现，非审计费用占的比例，不会影响审计师对持续经营不确定性客户，签发修正式无保留意见的决策；而且，还发现审计费用越高时，审计师越会对持续经营不确定性之客户，签发修正式无保留意见。Chaney and

<sup>7</sup> 美国证监会 (SEC) 规定在 2001 年 1 月 5 日以后的年报中，必须披露审计费用与非审计业务费用，从而使学术界得以获取更为准确的数据资料进行研究。Frankel *et al.* (2002) 利用审计费用与非审计费用进行了比较研究，发现非审计费用所占的比例越大，会计师允许管理当局盈余管理的幅度越大；并且发现，在费用披露日，非审计费用与公司股价反应存在负向关系；而审计费用越高则对管理当局盈余管理行为越有抑制的作用。

Philipich (2002) 通过研究安达信事件, 没有发现非审计费用对安达信的独立性产生了影响。Reynolds and Francis (2001) 则从单个客户对事务所分所的重要性(以客户销售额取自然对数除以分所所审上市公司销售额对数的总额表示) 角度, 来检验客户规模对审计师独立性的影响。结果发现, 对地区分所而言, 客户的规模越大, 审计师签发的审计意见则更为稳健, 表明就事务所分所层面而言, 对大客户的经济依赖并不有损于审计师的审计独立性。进一步, Chung *et al.* (2003) 分别以客户总费用、非审计费用占分所收入的比例表示经济依赖性, 也发现其并不影响审计质量。Craswell *et al.* (2002) 则以是否出具“非标”审计意见作为因变量检验了澳大利亚市场中审计收费依赖性对审计师独立性的影响, 结果没有发现审计收费依赖性的提高降低了出具“非标”意见的倾向。

### 3、国内的相关研究

由于我国证监会在 2001 年 12 月 24 日才要求上市公司在年度报告中将支付给事务所的报酬作为重要事项加以披露, 因此, 国内有关客户重要性与审计质量的研究文献较少。陈晓 (2003) 认为, CPA 的生存取决于审计客户的多寡, 在面临必要说“不”和不能不考虑是否会因此失去客户的两难选择时, CPA 往往屈从于经济压力, 导致审计质量的下降。秦志敏、郭进 (2003) 也认为, 当 CPA 从一个客户或者一个相关客户集团的收费超过 (或者近似) 业务收入的 15% 时, 应当考虑客户集中度对独立性的负面影响。韩厚军、周春生 (2003) 发现审计收费与公司资产、子公司个数、资产负债率、审计意见类型等因素显著相关。章立军 (2004) 通过对 2002 年披露年报审计费用的深沪 295 家上市公司运用多元回归方法进行检验, 发现审计师必然被盈余管理高的上市公司收买, 而盈余管理低的上市公司不收买审计师。方军雄、洪剑峭 (2004) 通过研究公司首先出现亏损时 CPA 的表现, 则没有发现来自单个客户的收入影响 CPA 独立性的证据。总体来说, 通过使用 2002 年及其以前的数据, 国内相关文献倾向于认为客户重要性对审计质量有负面影响。

审计质量是发现并报道财务报告误述的联合概率 (Watts and Zimmerman, 1983; DeAngelo, 1981)。如果把审计质量看作是由审计独立性与审计师专业技能这两个方面决定的话, 那么客户重要性与审计质量的关系则取决于客户重要性与审计独立性以及客户重要性与审计师专业技能两方面关系的综合。由于影响这两方面关系的专业制度、法制环境、职业环境等在各国的不同, 就使它们呈现出 uncertain 的趋势。就现有国外的文献来看, 除了美国整体上支持客户重要性对审计质量没有负面影响外, 其他国家尚存有差异。在国内, 就笔者所知, 目前有关客户重要性与盈余管理关系的研究基本上都是基于 2002 年以前的数据, 也就是在法律责任较轻的前提下, 认为客户重要性会影响审计质量。

因而，本文主要考察在法律责任加重前后（使用2002年和2003年的数据），客户重要性对盈余管理的影响情况。

## （二）研究问题

如前所述，由于会计制度本身是一个基于经济公正与公司效率的二元价值体系，法律规定等的逐年变迁就影响着盈余管理各方的成本效益计算及其在寻租博弈中的行为。2003年以后审计师面临的法律责任明显趋严，相关规定打开了审计民事诉讼的大门。这样，客户规模越大，有权索取赔偿的原告也越多，审计师承担的民事赔偿责任也越重。同时，随着市场有效性的增加，一旦诉讼失败，事务所的声誉损失也越大。因此，审计师在面临审计决策时，法律责任带来的高诉讼成本及由此产生的声誉损失，就可能促使自利的审计师利用企业管理当局进行盈余管理的动机来为自己寻租的行为会有所克制。因此，虽然审计客户对事务所较重要，但审计师可能较不容易丧失独立性和审慎性，以给予管理当局较大的盈余管理空间。

同时，作为理性的经济人，审计师作审计决策时，出于对经济利益的考虑，会随着事务所规模的不同其决策行为会有所变化。对于大客户，在规模较小的事务所，由于客户较少，单一客户的相对重要性提高，增强了事务所的经济依赖性。同时，对于小规模的事务所而言，一旦审计失败，所带来的声誉、诉讼等损失相对于大事务所也较小；另一方面，相对于大事务所，规模较小的事务所拥有的资源有限，在审计专业知识方面的投入较少，其专业能力也会相对较差。因此，相对于大事务所，虽然法律责任加重，但小事务所的审计质量可能仍然会较差，即可能允许客户管理当局盈余管理的空间会更大。

因此，本文主要研究在法律责任加重前后，客户重要性对事务所审计行为的影响、大小事务所对重要客户行为存在的差异，以及我国审计质量可能存在的特有现象等问题。

## 三、研究方法 with 变量设定

在早期的研究中，使用总应计数来计量管理当局的操纵行为（如 Healy, 1985; DeAngelo, 1986），而后期大量的文献则使用可操控性应计数来作为审计质量的替代变量（Warfield *et al.*, 1995; Becker *et al.*, 1998; Reynolds and Francis, 2001; Frankel *et al.*, 2002; Myers *et al.*, 2003; Ashbaugh *et al.*, 2003；夏立军，2003；刘启亮，2006）。在研究中，本文同时采用了可操控性应计数  $DA_t$  和包括线下项目的总应计数  $TA_t$  作为因变量，以此形成对比效果。

已有研究发现，截面 Jones 模型估计出的可操控性应计数能够有效地衡量公司盈余管理的程度（Bartov, Gul and Tsui, 2001; Kothari, 2005）。夏立军（2003）则对多个盈余管理计量模型及其调整模型在中国证券市场的使用效果

进行了实证检验,发现分行业估计并且采用线下项目前总应计数作为因变量估计特征参数的截面 Jones 模型能够较好地揭示公司的盈余管理。因此,本文采用这一模型估计不可操控性应计数,然后,将包含线下项目的总应计数( $TA_t$ )和估计出的不可操控性应计数( $NDA_t$ )之间的差额作为可操控性应计数( $DA_t$ ),并用以衡量盈余管理。其模型如下:

$$NDA_t = a_1(1/A_{t-1}) + a_2(\Delta REV_t/A_{t-1}) + a_3(PPE_t/A_{t-1}) \quad (1)$$

在(1)式中, $NDA_t$ 是经过 $t-1$ 期期末总资产调整后的第 $t$ 期的不可操控性应计数, $\Delta REV_t$ 是第 $t$ 期和第 $t-1$ 期经营利润的差额, $PPE_t$ 是第 $t$ 期期末总的厂房、设备等固定资产价值, $A_{t-1}$ 是第 $t-1$ 期期末总资产。 $a_1$ , $a_2$ , $a_3$ 是不同行业、不同年份的特征参数。它们根据以下模型,运用不同行业、不同年份的数据进行回归取得:

$$GA_t/A_{t-1} = a_1(1/A_{t-1}) + a_2(\Delta REV_t/A_{t-1}) + a_3(PPE_t/A_{t-1}) + \varepsilon_t \quad (2)$$

在(2)式中的 $a_1$ , $a_2$ , $a_3$ 是 OLS 估计值。 $GA_t = EBXI_t - CFO_t$ ,其中 $GA_t$ 代表第 $t$ 期线下项目前总应计数, $EBXI_t$ 为第 $t$ 期经营利润, $CFO_t$ 为第 $t$ 期的经营活动现金流量。其余变量的含义同(1)式。

$$DA_t = TA_t/A_{t-1} - NDA_t \quad (3)$$

在(3)式中, $DA_t$ 为经过 $t-1$ 期期末总资产调整后的第 $t$ 期的可操控性应计数。 $TA_t = NI_t - CFO_t$ ,其中 $TA_t$ 为第 $t$ 期的包括线下项目的总应计数, $NI_t$ 为净利润, $CFO_t$ 为第 $t$ 期的经营活动现金流量。其余变量的含义同(1)式。

在自变量—客户重要性的衡量方面,理论上应以公司的审计费用、非审计费用等,占该事务所所有审计客户的审计与非审计费用总额的比例等来衡量。但由于:(1)国内目前披露的审计费用有的是实际支付额,有的是应付数,披露标准不一致;(2)一家公司聘用了几家事务所<sup>8</sup>所支付的审计费用没有分开披露;(3)无法区分审计费用与非审计费用,故其不是理想的衡量方式。从国外来看,则是以各公司的销售收入取对数作为审计费用的替代变量(Craswell *et al.*, 1995; Francis, 1984; Reynolds *et al.*, 2001),据以计算客户的重要性。而国内的审计收费是以公司的资产规模为基础的,其与审计费用的相关性最高,因此,借鉴国外的做法,以各公司的资产总额取对数作为审计费用的替代变量,据以计算客户的重要性。

<sup>8</sup> 如这些公司(代码为:600188、600028、600695、000019、600600、000045、000726、600272、600555、600689、600851、000488)等分别聘请了国内和国外的两家事务所,但审计费用没有分开披露。



在控制变量方面，Dechow *et al.* (1995) 的研究显示，经营现金流量与可操控性应计数密切负相关。Press and Weintrop (1990) 的研究发现，负债比例也可能影响可操控性应计数，因为违反债务契约或有财务危机的公司其负债比例通常较高，为避免违反债务契约或财务危机，管理当局通常会操纵可操控性应计数，以提高公司盈余水平。Defond and Jiambalvo (1994) 和 Warfield *et al.* (1995) 均指出负债比率与异常应计数间为正向关系。Becker *et al.* (1998) 认为，公司规模可能代表相当多的遗漏变量 (omitted variable)，因此必须加以控制，以增加模型设定的正确性。因此，研究中以公司的销售收入取对数值来表示公司规模；同时，当年盈余管理还受上一年盈余管理的影响，二者负相关。国外的文献表明，成长型公司 (GW) 的可操控性应计数绝对值较大 (Ghosh and Moon, 2003)。国内的研究发现，事务所地域性可能对审计质量产生影响，本文用  $Locality_i$  来控制上市公司与事务所的地域关系对审计质量的影响，这里不预测其对盈余管理影响的具体方向<sup>9</sup>。

根据前面的讨论，本研究仿照相关研究 (Defond and Subramanyam, 1998; Becker *et al.*, 1998; Reynolds *et al.*, 2001; 李建然等, 2004)，以多变量回归分析的方式，在控制相关因素的干扰下，检验客户重要性对管理当局盈余管理的影响。其回归模型如下：

$$|DA_t| \text{ or } |TA_t| = \beta_0 + \beta_1 IMPOR_t + \beta_2 OCF_t + \beta_3 SIZE_t + \beta_4 LEV_t + \beta_5 |DA_{t-1}| + \beta_6 GW_t + \beta_7 LOCAL + \varepsilon_t \quad (4)$$

其中 ( $t$  代表年度)：

$DA_t$ ：可操控性应计数除以期初总资产；

$TA_t$ ：总应计数除以期初总资产；

$IMPOR_t$ ：所审客户的资产总额取对数后，占该事务所审计的所有上市公司总资产取对数后的总额之比率。

$OCF_t$ ：经营现金流量除以期初总资产；

$LEV_t$ ：总负债除以期初总资产；

$SIZE_t$ ：公司规模，以销售收入取对数表示；

$DA_{t-1}$ ：上一年的可操控性应计数除以上上一年的期初总资产；

$GW_{it}$ ：代表第  $i$  家公司第  $t$  期的销售收入成长率，为样本公司当年主营业务收入总额与上年相应数据的比值；

<sup>9</sup> 这可以从一些数据看出：在 2001、2002 年中，异地客户的所有非标意见类型的比例均高于本地客户。在 2003 年，异地客户被出具非标准无保留意见的比例高于本地客户 1.39%，但在非标意见的类型中，本地客户被出具保留意见的比例却高于异地客户。《谁审计中国证券市场——审计市场分析 (2003)》，第 19 页。

$Local_{it}^{10}$ : 第*i*家公司第*t*期聘请的事务所与上市公司注册地在同一省级行政区域, 取值为 1, 否则为 0。

对于大小事务所审计行为的差异, 将以下列方式进行检验。以各个事务所规模(即该事务所所有上市公司总资产取对数后的总额)的中位数, 将事务所分为大小两个子样本(中位数本身所对应的样本归入大事务所的类型中), 并以哑变量的方式来区分(以  $GS_t$  来代表), 如果观察值来自规模较小的事务所, 则  $GS_t=1$ , 反之,  $GS_t=0$ , 并在回归式(4)中加入  $IMPOR_t * GS_t$  作为解释变量。根据预期, 回归式中的  $IMPOR_t * GS_t$  之系数应显著大于 0。

#### 四、样本选择与描述性统计

为了考察在法律责任加重前后, 事务所对盈余管理的态度, 我们选取了 2002 年和 2003 年我国上市公司作为研究对象。具体选择时, 考虑了以下几个方面: (1) 由于考虑到小样本进行回归没有统计意义, 在计算  $DA_t$  时, 我们将年度行业样本控制在 30 个及以上(上市公司的行业分类标准采用中国证监会的分类标准), 低于 30 个样本的行业予以剔除, 其中制造业由于公司数量特别多, 我们取两位代码分类(制造业中代码为 C9 的公司有 16 家, C2 的公司有 2 家, C3 的公司有 24 家, 我们将其归为一类, 共 42 家), 其他行业取一位代码分类; (2) 剔除金融业上市公司; (3) 由于计算  $DA_t$  需要上一年的资料, 如果上年的样本数低于当年数, 以上年样本数为准。这样, 2002 年共取得 1121 个年度样本公司, 2003 年共取得 1132 个年度样本公司。

上市公司财务数据取自中国上市公司财务数据库(CSMAR), 有关事务所的资料来自 WIND 数据库。对于个别缺损数据, 我们直接从金融界网站(<http://www.jrj.com.cn>)查阅了公司年报。本研究主要使用的统计软件是 Eview3.1 和 SPSS11.5。

表 1 描述了各变量的统计资料。可以看出, 在 2002 年的样本中, 客户重要性的平均值 0.0616, 在规模较小的组别中, 其重要性 ( $IMPOR_{t, \text{小所}}$ ) 平均值为 0.1260, 在规模较大的事务所来看, 其重要性平均值 ( $IMPOR_{t, \text{大所}}$ ) 为 0.0407, 大事务所与小事务所重要性平均值具有显著的差异 ( $P < 0.00001$ )。

<sup>10</sup>  $Locality_t$  的取值方法如下: 如果负责公司当年年度报告审计的事务所所在地与上市公司注册地在同一省级行政区域, 那么  $Locality_t$  取值为 1, 否则取值为 0。如果事务所未发生合并, 那么将事务所注册地作为事务所所在地; 如果发生事务所合并, 那么将合并前事务所注册地连同合并后事务所注册地一起作为事务所所在地; 如果上市公司聘任的是国际五大(或四大)在国内的合作所, 那么认为事务所所在地与上市公司注册地不同。这是因为国际五大(或四大)的专业能力较强, 规模较大, 其在国内的合作所通常在多个地区设立分支机构, 受注册地政治和经济影响较小。

表 1 描述性统计

2002 年	样本数	平均数	标准差	中位数	最小值	最大值
$DA_t$	1121	-0.0398	0.0821	-0.0341	-1.5127	0.1447
$ DA_t $	1121	0.0495	0.0767	0.0373	2.90E-05	1.5127
$DA_t > 0$	163	0.0332	0.0328	0.0224	0.0001	0.1447
$DA_t < 0$	958	-0.0522	0.0815	-0.0385	-1.5127	-2.90E-05
$TA_t$	1121	-0.0429	0.1381	-0.0342	-1.8554	0.9000
$ TA_t $	1121	0.0810	0.1198	0.0512	7.99E-05	1.8554
$OCF_t$	1121	0.0534	0.1030	0.0503	-0.7531	0.9446
$LEV_t$	1121	0.3720	0.0763	0.4632	0.0004	0.7907
$SIZE_t$	1121	20.1266	1.3534	20.1506	12.7894	26.5045
$DA_{t-1}$	1121	-0.0220	0.0611	-0.0215	-0.4439	0.7691
$GW_t$	1121	1.3800	3.3745	1.1300	0.0131	87.4000
$LOCAL_t$	1121	0.6271	0.4837	1.0000	0.0000	1.0000
$IMPOR_t$	1121	0.0616	0.0619	0.0467	0.0119	1.0000
$IMPOR_{t,大所}$	847	0.0407	0.0150	0.0416	0.0119	0.0760
$IMPOR_{t,小所}$	274	0.1260	0.0976	0.0892	0.0644	1.0000
2003 年	样本数	平均数	标准差	中位数	最小值	最大值
$DA_t$	1132	-0.0285	0.0818	-0.0284	-0.6146	1.3586
$ DA_t $	1132	0.0497	0.0709	0.0355	5.47E-05	1.3586
$DA_t > 0$	211	0.0568	0.1141	0.0273	7.79E-05	1.3586
$DA_t < 0$	921	-0.0481	0.0565	-0.0364	-0.6146	-5.47E-05
$TA_t$	1132	-0.0300	0.1398	-0.0267	-1.0791	1.4818
$ TA_t $	1132	0.0808	0.1179	0.0491	5.35E-05	1.4818
$OCF_t$	1132	0.0479	0.1275	0.0478	-1.3799	1.1708
$LEV_t$	1132	0.0372	0.0663	0.0173	3.90E-05	0.7707
$SIZE_t$	1132	20.2946	1.3929	20.3205	13.3554	24.8140
$DA_{t-1}$	1132	-0.0399	0.0820	-0.0341	-1.5128	0.1447
$GW_t$	1132	1.3842	2.6755	1.1759	0.0001	78.8110
$LOCAL_t$	1132	0.6074	0.4885	0.6074	0.0000	1.0000
$IMPOR_t$	1132	0.0622	0.0782	0.0451	0.0105	1.0000
$IMPOR_{t,大所}$	887	0.0404	0.0155	0.0413	0.0105	0.0763
$IMPOR_{t,小所}$	245	0.1414	0.1394	0.0948	0.0587	1.0000

在 2003 年的样本中，全部样本的客户重要性 ( $IMPOR_t$ ) 平均值为 0.0622，在规模较小的组别中，其重要性 ( $IMPOR_{t,小所}$ ) 平均值为 0.1414，在规模较大的事务所来看，其重要性平均值 ( $IMPOR_{t,大所}$ ) 为 0.0404，大事务所与小事务所重要性平均值仍具有显著的差异 ( $P < 0.00001$ )。两年的样本均显示在

规模较小的事务所，由于审计客户较少，造成客户的重要性相对提高。2002年  $DA_t$  的平均数为  $-0.0398$ ， $|DA_t|$  的平均数为  $0.0495$ ，其中  $DA_t > 0$  的样本有 163 个， $DA_t < 0$  的样本有 958 个；2003 年  $DA_t$  的平均数为  $-0.0285$ ， $|DA_t|$  的平均数为  $0.0497$ ，其中  $DA_t > 0$  的样本有 211 个， $DA_t < 0$  的样本有 921 个。在两年的数据中， $DA_t < 0$  均较  $DA_t > 0$  观察值多的现象，与相关文献的发现类似 (Becker *et al.*, 1998; Francis *et al.*, 1999 等)。

表 2<sup>11</sup> 列示了样本变量间的 Spearman 和 Pearson 相关系数。可以发现，在 Spearman 检验中，可操控性应计数的绝对值 ( $|DA_t|$ ) 与客户重要性 ( $IMPOR_t$ ) 显著正相关，与现金流量 ( $OCF_t$ ) 显著正相关，与客户规模 ( $SIZE_t$ ) 显著负相关，与负债水平 ( $LEV_t$ ) 和事务所地域性负相关不显著，与上年可操控性应计数绝对值 ( $|DA_{t-1}|$ )、公司成长率正相关不显著；在 Pearson 检验中，可操控性应计数的绝对值 ( $|DA_t|$ ) 与客户重要性 ( $IMPOR_t$ ) 正相关不显著，与现金流量 ( $OCF_t$ )、客户规模 ( $SIZE_t$ )、事务所地域性显著负相关，与上年可操控性应计数绝对值 ( $|DA_{t-1}|$ ) 和负债水平 ( $LEV_t$ ) 正相关不显著，与公司成长性显著正相关。除了客户重要性 ( $IMPOR_t$ ) 的符号与理论预期不一致外，综合 Pearson 和 Spearman 检验来看，其余变量与理论预期基本一致。客户重要性除了与负债水平 ( $LEV_t$ ) 的相关系数较高以外 (在 Pearson 中为  $0.654$ ，在 Spearman 中为  $0.532$ )，与其他控制变量的相关系数并不高，都在  $0.65$  以下。整体而言，自变量之间共线性问题并不严重。

在 Pearson 检验中，总应计数的绝对值 ( $|TA_t|$ ) 与客户重要性 ( $IMPOR_t$ ) 正相关不显著，与现金流量 ( $OCF_t$ )、客户规模 ( $SIZE_t$ ) 显著负相关，与债务比率 ( $LEV_t$ )、公司成长性显著正相关，与上年可操控性应计数绝对值 ( $|DA_{t-1}|$ )、事务所地域性负相关不显著；在 Spearman 检验中，总应计数的绝对值 ( $|TA_t|$ ) 与客户重要性 ( $IMPOR_t$ ) 负相关不显著，与现金流量 ( $OCF_t$ )、债务比率显著正相关，与公司规模显著负相关，与上年可操控性应计数 ( $DA_{t-1}$ ) 正相关不显著，与事务所地域性和公司成长性负相关不显著。综合 Pearson 和 Spearman 检验来看，基本上与理论预期一致。

## 五、实证结果与进一步分析

### (一) 实证结果分析

表 3 反映客户重要性对审计师抑制客户盈余管理行为的影响。从结果来看 (表 3 左半部分)，在控制其它可能影响应计数的因素后，法律责任的加重

<sup>11</sup> 为节省篇幅，本文仅列出了 2003 数据的相关系数表，2002 年数据的相关系数与多变量回归分析的结果基本一致，这里没有列出。

表 2 变量间的相关系数

2003	$ DA_t $	$ TA_t $	$IMPOR_t$	$OCF_t$	$SIZE_t$	$LEV_t$	$ DA_{t-1} $	$GW_t$	$LOCAL_t$
$ DA_t $		.223**	.065*	.167**	-.056*	-.012	.014	.028	-.029
$ TA_t $	.545**		-.006	.158**	-.062*	.056*	.001	-.018	-.029
$IMPOR_t$	.017	.029		.069*	.067*	.532**	-.029	.020	-.010
$OCF_t$	-.108**	-.206**	.019		.291**	.033	-.070*	.170**	-.015
$SIZE_t$	-.196**	-.225**	-.001	.245**		.432**	.016	.339**	.045
$LEV_t$	.032	.108**	.654**	-.016	.256**		-.028	.152**	.069*
$ DA_{t-1} $	.003	-.011	-.035	-.039	-.019	-.034		-.034	-.039
$GW_t$	.139**	.059*	-.009	.011	.024	-.005	.074**		.044
$LOCAL_t$	-.075**	-.014	.006	-.003	.036	.026	-.023	-.052*	

注：1.\*、\*\*表示分别在 0.05、0.01 的显著水平 (1-tailed)。2. 表中右上半部分为 Spearman 检验结果，左下半部分为 Pearson 检验结果。

表3 客户重要性对盈余管理的影响

	2002 (N = 1121)		2003 (N = 1132)		2002 (N = 1121)		2003 (N = 1132)	
	TA <sub>i</sub>	DA <sub>i</sub>	TA <sub>i</sub>	DA <sub>i</sub>	TA <sub>i</sub>	DA <sub>i</sub>	TA <sub>i</sub>	DA <sub>i</sub>
$\beta_0$	.315 (.000)	.268 (.000)	.504 (.000)	.290 (.000)	.326 (.000)	.270 (.000)	.526 (.000)	.299 (.000)
<i>IMPOR<sub>i</sub></i>	-.081 (.184)	-.051 (.176)	-.174 (.002)	-.073 (.050)	-.356 (.109)	-.093 (.504)	-.649 (.000)	-.269 (.023)
<i>IMPOR<sub>i</sub>*GS<sub>i</sub></i>					.246 (.197)	.037 (.757)	.438 (.006)	.181 (.080)
<i>OCF<sub>i</sub></i>	.025 (.499)	.078 (.001)	-.197 (.000)	-.037 (.042)	.025 (.503)	.078 (.001)	-.199 (.000)	-.038 (.036)
<i>SIZE<sub>i</sub></i>	-.012 (.000)	-.012 (.000)	-.021 (.000)	-.012 (.000)	-.013 (.000)	-.012 (.000)	-.021 (.000)	-.012 (.000)
<i>LEV<sub>i</sub></i>	.016 (.000)	.013 (.000)	.422 (.000)	.161 (.001)	.016 (.000)	.013 (.000)	.425 (.000)	.162 (.001)
$ DA_{i-1} $	-.077 (.226)	.004 (.913)	-.040 (.341)	-.017 (.538)	-.075 (.235)	.005 (.908)	-.043 (.309)	-.018 (.513)
<i>GW<sub>i</sub></i>	.001 (.908)	.000 (.529)	.003 (.010)	.004 (.000)	8.006E-05 (.942)	.000 (.522)	.003 (.007)	.004 (.000)
<i>LOCAL<sub>i</sub></i>	.004 (.654)	.006 (.211)	.000 (.987)	-.007 (.109)	.004 (.615)	.006 (.207)	.001 (.876)	-.007 (.130)
$R^2$	.135	.216	.143	.082	.137	.216	.149	.084
<i>adj. R<sup>2</sup></i>	.128	.210	.137	.075	.129	.209	.142	.076
F-statistic	20.481	36.122	22.010	21.010	18.142	31.588	20.543	10.776
Prob(F-statistic)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)

注：(1)  $GS_i$  为事务所规模的哑变量，如果观察值来自规模较小的事务所，则  $GS_i = 1$ ，反之， $GS_i = 0$ ，其中事务所规模中位数本身所对应的样本归入大事务所的类型中。表6同。(2) 表4、表5、表6括号内均为P值。

使  $IMPOR_t$  与  $|TA_t|$  显著负相关 (系数为  $-0.174$ ,  $P=0.002$ ), 与  $|DA_t|$  也显著负相关 (系数为  $-0.073$ ,  $P=0.050$ )。而在法律责任加重以前 (2002 年数据),  $IMPOR_t$  与  $|TA_t|$  和  $|DA_t|$  虽然负相关, 但均不显著。这表明, 在审计职业面临的法律责任趋严以后, 当审计客户对事务所越重要时, 即经济依赖性越强时, 审计师会越谨慎, 进而可能会抑制客户管理当局的盈余管理行为。

为了进一步探讨不同规模事务所对客户盈余管理行为上的影响, 以检验在规模较小的事务所中, 审计师作审计决策时, 相对于规模较大的事务所, 是否较会偏重于经济依赖性的考虑, 进而允许客户有较大的盈余管理空间。本研究在回归式 (4)<sup>12</sup> 中加入了  $IMPOR_t * GS_t$  作为解释变量, 其分析结果列于表 3 (右半部分)。从实证结果来看, 2003 年数据显示在以  $|TA_t|$  作为因变量的回归中,  $IMPOR_t * GS_t$  的系数显著为正, 系数为  $0.438$ ,  $P=0.006$ ; 在以  $|DA_t|$  作为因变量的回归中,  $IMPOR_t * GS_t$  的系数亦显著为正, 系数为  $0.181$ ,  $P=0.080$ 。而 2002 年的数据结果显示, 虽然  $IMPOR_t * GS_t$  的系数均为正, 但均不显著。这样表明, 虽然法律责任加重, 客户的重要性会引起审计师的谨慎, 进而引起审计师抑制客户的盈余管理行为, 但是, 在规模较小的事务所, 审计师仍会受到客户重要性的影响, 进而允许客户有一定的盈余管理空间。这表明, 对小事务所而言, 经济依赖性的影响还是存在的。

进一步, 由于  $IMPOR_t$  的系数 ( $\beta_1$ ) 代表客户重要性对应计数的影响, 而  $IMPOR_t * GS_t$  的系数 ( $\beta_2$ ) 则代表因属于规模较小事务所, 客户重要性对应计数的抑制作用,  $\beta_1 + \beta_2$  则代表属于小规模事务所客户重要性对应计数的影响。从表 3 中 2003 年数据可以发现, 由于  $IMPOR_t * GS_t$  的系数  $\beta_2$  显著为正, 表明大事务所对应计数的抑制作用大于小事务所对应计数的抑制作用, 大事务所的审计质量高于小事务所。同时, 由于在  $|DA_t|$ 、 $|TA_t|$  作为因变量的情况下, 始终存在  $|\beta_1| > \beta_2$ , 就说明即使是小事务所, 其对盈余管理的抑制作用也会大于其允许客户存在的盈余管理空间。同时, 如表 3 所示 (2003 年数据), 在加入  $IMPOR_t * GS_t$  变量后, 以  $|TA_t|$  作为因变量的回归中,  $IMPOR_t$  的系数显著为负,  $\beta_2 = -0.649$ ,  $P=0.000$ ; 在以  $|DA_t|$  作为因变量的回归中,  $IMPOR_t$  的系数亦显著为负,  $\beta_3 = -0.269$ ,  $P=0.023$ , 这仍然支持了表 3 左半部分的结论。

根据表 3 中 2003 数据的结果, 进一步, 本文根据事务所规模, 将 2003 年的样本分为由大事务所审计的公司和由小事务所审计的公司两个子样本, 分别按表 4 的方式回归, 发现无论是在大、小事务所组样本中, 法律责任的加重使客户重要性与应计数总额的绝对值均显著负相关, 但大事务所组的  $IMPOR_t$  系数均比小事务所大; 当因变量为  $|TA_t|$ 、 $|DA_t|$  时, 大事务所组的系数分别

<sup>12</sup> 由于同时纳入  $IMPOR_t$ 、 $GS_t$  和  $IMPOR_t * GS_t$  于模型中, 存在严重的共线性问题, 因而, 本文没有同时纳入这三个变量。

为  $-0.624$  和  $-0.178$ ，小事务所组的系数分别为  $-0.209$  和  $-0.108$ 。这表明随着法律责任的加重，大事务所对重要客户的谨慎性越强，对客户盈余管理的抑制作用可能更强。这仍支持表 3 的结论。

至于在控制变量方面， $OCF_t$ 、 $SIZE_t$  和  $LEV_t$  基本上与预期的一致； $|DA_{t-1}|$  和  $LOCAL_t$  的符号与预期的基本一致，但均不显著； $GW_t$  则没有一致性结论。

表 4 大小事务所组样本中，客户重要性对盈余管理影响的比较

	预期符号	大事务所组样本 (N = 887)		小事务所组样本 (N = 245)	
		$ TA_t $	$ DA_t $	$ TA_t $	$ DA_t $
$\beta_0$		.525 (.000)	.278 (.000)	.508 (.000)	.377 (.000)
$IMROR_t$	-	-.624 (.013)	-.178 (.098)	-.209 (.002)	-.108 (.006)
$OCF_t$	-	-.311 (.000)	-.111 (.000)	.094 (.148)	.142 (.000)
$SIZE_t$	+/-	-.021 (.000)	-.011 (.000)	-.023 (.000)	-.017 (.000)
$LEV_t$	+	.511 (.001)	.207 (.044)	.449 (.000)	.193 (.000)
$ DA_{t-1} $	-	-.037 (.376)	-.007 (.810)	.023 (.870)	-.035 (.673)
$GW_t$	+	.001 (.467)	.002 (.004)	.023 (.000)	.018 (.000)
$LOCAL_t$	?	-.003 (.688)	-.007 (.157)	.011 (.435)	-.005 (.540)
$R^2$		.207	.104	.224	.319
$adj.R^2$		.200	.097	.201	.298
F-statistic		30.480	13.634	9.469	15.316
Prob(F-statistic)		(.000)	(.000)	(.000)	(.000)

## (二) 进一步分析

国外早期的研究文献指出，审计师对于管理当局操纵盈余增加（正的可操控性应计数）及减少（负的可操控性应计数）的行为，其关注的程度并不一样。由于审计师较易因未发现管理当局高估盈余及净资产而遭受诉讼或商誉的损害，因此，审计师较注意管理当局操纵盈余增加的行为，却不在意其



操纵盈余减少的行为（甚至欢迎管理当局采取保守的会计政策）（Defond and Jiambalvo, 1994; Becker *et al.*, 1998; Francis and Krishnan, 1999; Kellogg, 1984; Trompeter, 1994）。在此情况下，如以可操控性应计数和总应计数的绝对值（IDAI 和 ITAI）来衡量审计师允许盈余管理的程度，可能会丧失一些信息含量。因此，本研究进一步将全部样本，依可操控性应计数和总应计数的正负，区分为两组子样本来检验。除了再次检验上述假说的稳健性外，也想进一步了解，客户重要性对审计师允许管理当局进行盈余管理方向（正向或负向）上的行为是否存在差异。

首先，我们将总应计数（ $TA_i$ ）和可操控性应计数（ $DA_i$ ）按表 3 的模式进行回归分析，可以看出（见表 5），在总应计数（ $TA_i$ ）和可操控性应计数（ $DA_i$ ）为负的子样本中，2003 年数据表明  $IMPOR_i$  的系数（ $\beta_1$ ）均显著为正。其中， $TA_i$  为因变量的  $IMPOR_i$  系数  $\beta_1 = 0.164$ ， $P = 0.001$ ； $DA_i$  为因变量的  $IMPOR_i$  系数  $\beta_1 = 0.106$ ， $P = 0.004$ ，说明事务所对负向盈余管理具有抑制作用。而 2002 年的数据分析表明，在  $TA_i$  和  $DA_i$  为负的子样本中，尽管  $IMPOR_i$  系数为正，但均不显著，说明事务所对负向盈余管理没有明显的抑制作用。但是，在总应计数（ $TA_i$ ）和可操控性应计数（ $DA_i$ ）为正的子样本中，2003 年数据表明  $TA_i$  为因变量的  $IMPOR_i$  系数  $\beta_1 = 0.089$ ， $P = 0.162$ ； $DA_i$  为因变量的  $IMPOR_i$  系数  $\beta_1 = 0.036$ ， $P = 0.656$ ，表明事务所对正向盈余管理没有抑制作用。同时，2002 年数据回归结果中  $IMPOR_i$  的系数均为负，均不显著，表明事务所对正向盈余管理也没有抑制作用。

进一步，在表 5 的基础上，加入  $IMPOR_i * GS_i$  作为解释变量，可以发现（见表 6），在应计数为正的子样本中，2003 年数据表明在可操控性应计数（ $DA_i$ ）为因变量的情况下， $IMPOR_i$  的系数为负， $IMPOR_i * GS_i$  的系数为正，与预期一致；而在总应计数（ $TA_i$ ）为因变量的情况下， $IMPOR_i$  系数为正，与理论预期的不一致， $IMPOR_i * GS_i$  的系数为正，与理论预期的一致，但它们都不显著。2002 年结果表明  $IMPOR_i$  和  $IMPOR_i * GS_i$  的系数均不显著。这表明，2002 和 2003 年审计师对正向盈余管理没有抑制作用（与表 5 基本一致），而且，大、小事务所在抵制客户重要性的影响时，其行为没有差异。

在应计数为负的子样本中，2003 年数据表明在以  $TA_i$  和  $DA_i$  为因变量的情况下， $IMPOR_i$  系数和  $IMPOR_i * GS_i$  系数的符号与理论预期完全一致： $IMPOR_i$  系数符号皆为正， $IMPOR_i * GS_i$  系数符号皆为负，且都非常显著。这表明，对于客户管理当局的负向盈余管理行为，审计师可能具有抑制作用。同时，在小事务所中，客户重要性对审计师的审计决策行为仍具有显著影响，即小事务所的客户会获得一定的盈余管理空间。而且，从表 6 还可以发现，由于  $IMPOR_i * GS_i$  的系数显著为负，表明大事务所对负向应计数的抑制作用大于小事务所对应计数的抑制作用，大事务所的审计质量高于小事务所。而 2002 年数据表明， $IMPOR_i$  系数和  $IMPOR_i * GS_i$  系数的符号与理论预期完全一致，

表 5 客户重要性对正、负盈余管理的影响

	预期符号							
	2002		2003		2003			
	TA > 0 N = 325	DA > 0 N = 163	TA > 0 N = 380	DA > 0 N = 211	TA < 0 N = 796	DA < 0 N = 958		
$\beta_0$	.018 (.690)	.006 (.903)	-.143 (.003)	.126 (.228)	-.335 (.000)	-.314 (.000)	-.673 (.000)	DA < 0 N = 921
$IMPOR_t$	-	-.024 (.435)	-.043 (.324)	.036 (.656)	+	.130 (.140)	.164 (.001)	.106 (.004)
$OCF_t$	-	-.761 (.000)	-.071 (.006)	-.415 (.000)	-	-.315 (.000)	-.564 (.000)	-.177 (.000)
$SIZE_t$	+/-	.001 (.508)	.002 (.384)	.009 (.000)	-.002 (.698)	.015 (.000)	.032 (.000)	.014 (.000)
$LEV_t$	+	.003 (.023)	.001 (.007)	-.084 (.121)	-.180 (.097)	-.018 (.000)	-.414 (.000)	-.236 (.000)
$DA_{t-1}$	+/-	.037 (.401)	.065 (.187)	-.015 (.652)	-.007 (.899)	.034 (.659)	-.035 (.332)	-.005 (.840)
$GW_t$	+	-.001 (.395)	-.008 (.093)	.000 (.473)	.001 (.291)	-.001 (.692)	-.001 (.663)	.000 (.958)
$LOCAL_t$	+/-	-.004 (.483)	-.003 (.628)	-.006 (.267)	-.032 (.024)	-.016 (.121)	-.001 (.858)	-.008 (.296)
$R^2$		.783	.127	.895	.403	.201	.326	.187
Adj. $R^2$		.777	.078	.892	.378	.192	.319	.179
F-statistic		132.603	12.600	369.186	15.638	23.467	42.309	24.691
Prob(F-statistic)		(.000)	(0.000)	(.000)	(.000)	(.000)	(.000)	(.000)

但均不显著，从而与 2003 年的结果完全不一样。这表明随着法律责任的加重，审计师对负向盈余管理行为可能发生了变化，即审计师可能关注客户的负向盈余管理行为（即管理当局采取的保守会计政策），但不能抑制客户的正向盈余管理行为。

这一定程度上也表明了我国现在的盈余管理行为与国外文献的发现（Defond and Jiambalvo, 1994; Becker *et al.*, 1998; Francis and Krishnan, 1999; Kellogg, 1984; Trompeter, 1994）可能存在不一致。我们猜测出现这种现象，可能是因为在法律责任加重以前，审计师对重要客户的正、负向盈余管理行为没有抑制作用，是事务所单方面妥协导致审计质量低下；而在法律责任加重以后，我国的公司上市规定、新股发行、配股资格、ST 及 PT 处理规定等的监管要求严厉，客户企图通过正向盈余管理来增加公司的业绩，以达到监管要求，因而，其对上市公司具有“刚性”，重要客户不易向事务所妥协，事务所可能无法发挥抑制作用。同时，正是由于这种情况，客户一般不会或较少进行负向盈余管理，因而，对于负向盈余管理，客户可能易于向事务所妥协，事务所能够发挥抑制作用。这实际可能是法律责任加重以后，客户和事务所双方相互妥协的结果。

## 六、稳健性测试、研究结论与局限

### （一）稳健性测试

为了增加实证结论的稳健性，本研究进行下列敏感性分析<sup>13</sup>：

1. 为了避免极端值对实证结果的影响，本研究剔出自变量超过该自变量样本标准差三倍的观察值，共剔出 32 个样本观察值，再按表 3 进行回归，发现除了以可操控性应计数绝对值为因变量的回归中， $IMPOR_i * GS_i$  系数的显著性下降以外（ $P=0.213$ ），其余结果并不受影响。

2. 在相关系数分析中，客户重要性（ $IMPOR_i$ ）与债务比率（ $LEV_i$ ）之间的相关系数较高，在 Spearman 中为 0.532，在 Pearson 中为 0.654。为了区分二变量之间的关系，本研究按表 3 再额外加入交叉项（ $IMPOR_i * LEV_i$ ）对样本进行测试。交叉项中的债务比率（ $LEV_i$ ）改为虚拟变量，若公司债务比率大于样本中位数则为 1，反之，则为 0。此交叉项主要在于测试债务比率大小不同的公司，其重要性（ $IMPOR_i$ ）是否有差异，同时，也可观察客户重要性（ $IMPOR_i$ ）与债务比率（ $LEV_i$ ）之间交互作用对结果的影响。结果发现，在以可操控性应计数绝对值（ $|DA_i|$ ）为因变量的分析中，客户重要性（ $IMPOR_i$ ）仍然显著为正，而交叉项系数虽然为正，但并不显著（ $P =$

<sup>13</sup> 根据本文的研究目的，敏感性分析主要限于 2003 年的数据。

表 6 在分事务所规模情况下, 客户重要性对正、负盈余管理的影响

	预期符号		2002		2003		预期符号		2002		2003	
			$TA_i > 0$	$DA_i > 0$	$TA_i > 0$	$DA_i > 0$	$TA_i < 0$	$DA_i < 0$	$TA_i < 0$	$DA_i < 0$	$TA_i < 0$	$DA_i < 0$
			N = 325	N = 163	(N = 380)	(N = 211)	N = 796	N = 958	(N = 752)	(N = 921)		
$\beta_0$		.017	.008	-.141	.139	-.349	-.314	-.688	-.329			
		(.707)	(.867)	(.004)	(.189)	(.000)	(.000)	(.000)	(.000)			
$IMPOR_i$	-	.008	-.129	.030	-.228	+	.435	.056	.511	.306		
		(.952)	(.459)	(.847)	(.517)		(.136)	(.715)	(.002)	(.003)		
$IMPOR_i * GS_i$	+	-.030	.076	.052	.250	-	-.266	-.006	-.321	-.180		
		(.806)	(.610)	(.662)	(.442)		(.273)	(.965)	(.030)	(.034)		
$OCF_i$	-	-.761	-.071	-.965	-.417	-	-.314	-.083	-.558	-.176		
		(.000)	(.006)	(.000)	(.000)		(.000)	(.002)	(.000)	(.000)		
$SIZE_i$	+/-	.001	.002	.009	-.002	+/-	.015	.014	.032	.015		
		(.510)	(.378)	(.000)	.668		(.000)	(.000)	(.000)	(.000)		
$LEV_i$	+	.003	.001	-.083	-.186	-	-.018	-.015	-.418	-.242		
		(.023)	(.007)	(.126)	(.089)		(.000)	(.000)	(.000)	(.000)		
$DA_{i-1}$	+/-	.037	.064	-.014	-.004	+/-	.031	.038	-.036	-.004		
		(.399)	(.197)	(.662)	(.949)		(.684)	(.388)	(.319)	(.862)		
$GW_i$	+	-.001	-.008	.000	.001	-	.000	.000	-.001	-.001		
		(.396)	(.131)	(.449)	(.252)		(.735)	(.544)	(.692)	(.865)		
$LOCAL_i$	+/-	-.004	-.003	-.006	-.032	+/-	-.016	-.006	-.003	-.008		
		(.472)	(.636)	(.260)	(.026)		(.116)	(.286)	(.702)	(.293)		
$R^2$		.783	.129	.895	.405		.202	.260	.331	.191		
$Adj. R^2$		.776	.103	.892	.376		.192	.253	.322	.182		
F-statistic		115.611	12.294	327.411	13.936		20.691	34.531	38.338	22.538		
Prob(F-statistic)		(.000)	(.000)	(.000)	(.000)		(.000)	(.000)	(.000)	(.000)		

0.231)。在以总应计数绝对值 ( $|TA_i|$ ) 为因变量的分析中, 客户重要性 ( $IMPOR_i$ ) 仍然显著为正, 同时交叉项系数也为正, 且显著 ( $P=0.0059$ )。这一结果说明, 应计数 ( $|DA_i|$ 、 $|TA_i|$ ) 与客户重要性 ( $IMPOR_i$ ) 之间的关系, 基本不受债务比率 ( $LEV_i$ ) 的影响。

3. 在对应计数 ( $|DA_i|$ 、 $|TA_i|$ ) 取绝对值进行回归分析时, 本研究考察了上年可操控性应计数 ( $DA_{i-1}$ ) 取绝对值 ( $|DA_{i-1}|$ ) 的情况。为了考察上年可操控性应计数 ( $DA_{i-1}$ ) 不取绝对值对回归结果的影响, 这里, 本文采用上年可操控性应计数 ( $DA_{i-1}$ ) 不取绝对值, 再按表 3 进行回归分析, 发现结论并不受影响。

4. 为了进一步增强表 3 结论的可靠性, 本文按客户重要性的中位数将客户分为高重要性客户和低重要性客户, 通过应计数 ( $DA_i$  和  $TA_i$ ) 方差来检验高重要性客户和低重要性客户盈余管理空间 (以方差为替代变量) 的差异, 显著地发现相比于低重要性客户, 高重要性客户并不会因其重要而获得更大的盈余管理空间, 从而支持表 3 结论的可靠性。

5. 对于客户重要性, 本文采用事务所所审客户的审计费用总额取对数后, 占该事务所审计的所有上市公司审计费用取对数后的总额之比率为替代变量, 按表 3、表 4、表 5、表 6 的方式进行了回归, 发现结论基本上不受影响。

6. 考虑到行业固定效果, 按表 3 的方式, 本文增加行业哑变量 (按 A、C、D、F、G、H、J、K、M 设行业哑变量) 进行了回归, 发现结论基本不受影响。

7. 对于同时发行 H 股、B 股的公司, 本文设置哑变量进行控制后, 按表 3、表 5、表 6 的方式回归, 发现文中结论基本上不变。

8. 对于新聘事务所, 按表 3、表 5、表 6 的方式, 本文增加哑变量后进行回归, 发现文中结论基本不受影响。

## (二) 研究结论与局限

近年来, 客户重要性与审计质量之间的关系受到监管者和学术界普遍关注。国内已有的研究都是基于 2002 年及其以前的数据 (即法律责任不严的背景下), 发现客户重要性对审计质量有负面影响。本章试图研究在法律责任趋严前后, 客户重要性与盈余管理行为之间的关系。通过利用我国证券市场 2002 和 2003 年的数据, 在控制其它影响因素的情况下, 本文发现在法律责任加重以后, 我国的审计质量可能有所提高, 并出现一些与国外研究结论不一致的特征。

在控制其它变量的情况下, 本文发现在法律责任加重以后: (1) 随着客户重要性的增加, 审计师会更加谨慎, 进而会抑制公司的盈余管理行为; (2) 相对于规模较大的事务所而言, 在规模较小的事务所, 客户重要性对审计师的影响仍然存在, 即小事务所的审计师为了寻租会允许客户存在一定的盈余管理

空间；但是，客户重要性对小事务所的影响还是小于小事务所对盈余管理的抑制作用，表明事务所审计质量普遍有所提高。这与2003年规定出台之前的研究结论（陈晓，2003；秦志敏、郭进，2003；韩厚军、周春生，2003；章立军，2004）不一致。这也为2003年审计师民事诉讼规定的合理性提供了经验上的支持。（3）本研究还发现，我国审计师对客户管理当局盈余管理方向的关注与国外不一致，审计师能够关注客户操纵盈余减少（负向盈余管理）的行为，却无法抑制客户操纵盈余增加（正向盈余管理）的行为。

本研究的一个局限性在于法律责任加重以后的研究样本仅限于2003年，这削弱了研究结论的外在有效性。但是，我们使用了大样本，进行了多变量分析和进一步分析，并且进行了稳健性测试，这些因素会增强研究结论的可靠性。以上研究结论对于中国股票市场审计质量与盈余管理后续研究的一个启示是，随着中国资本市场制度背景的变化，审计质量与上市公司盈余管理可能出现了一些中国特有的现象。这还有待进一步研究。

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## CLIENT IMPORTANCE AND AUDIT QUALITY: EVIDENCE FROM CHINESE LISTED COMPANIES\*

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### ABSTRACT

This study examines the effect of client importance on audit quality and the change in this effect before and after the increase in auditors' legal liability. Using a sample of companies listed on Chinese stock markets in 2002 and 2003, we find, after controlling the influence of other variables, that when auditors' legal liability increases, (1) auditors will become more conservative and accordingly constrain earnings management as client importance increases; (2) the effect of client importance on auditors still exists in small audit firms when compared with large audit firms, that is, auditors from small firms will allow a certain degree of earnings management for rent seeking, but even in small audit firms the positive effect still dominates the negative effect of client importance on audit quality, showing an overall improvement in audit quality in China; and (3) auditors in China pay more attention to and are more efficient in constraining negative earnings management than positive earnings management; the direction of this asymmetry is contrary to that found in the United States and other western markets.

*Key Words:* Client Importance, Audit Quality, Legal Liability, Earnings Management

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## I. INTRODUCTION

After a series of financial scandals, such as the Enron case, and with the promulgation of the Sarbanes-Oxley Act of 2002, the question of how client importance affects earnings management and audit quality has again attracted much attention from practitioners, researchers, and regulators. Non-audit services provided to a single client are prohibited or restricted under sections 201 and 202 of the Sarbanes-Oxley Act<sup>4</sup> to reduce the negative effect of client importance on audit quality. When China was in the early stage of regulation, the legal liability of audit firms and auditors was relatively low. Since civil liability could not be enforced due to operational difficulty, an auditor's litigation risks mainly came from administrative and criminal liabilities.<sup>5</sup> The "Notice of the Supreme People's Court on Issues about Accepting Civil Lawsuits Arising from Mendacious Statements in Stock Markets" promulgated in 2002 prescribes that any civil lawsuits related to mendacious statements shall be accepted by the Supreme People's Court . . . only after the Chinese Securities Regulatory Commission (CSRC) and its agencies conducted an investigation and made a penalty decision, and after the plaintiff has agreed to use the results of the investigation and the penalty decision as evidence to bring the lawsuit. This notice was attached with a proviso on claims upon an auditor's civil liability, and thus its effect was quite limited,<sup>6</sup> resulting in the court's inability to accept lawsuits initiated by minority shareholders against the auditor, such as in the case of Sichuan Hongguang. The auditor's civil liability could really be claimed upon in China only after the promulgation of the "Several Provisions of the Supreme People's Court on Accepting Civil Lawsuits Arising from Mendacious Statements in Stock

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<sup>4</sup> The related specific requirements are as follows: Section 201 provides that it shall be unlawful for a registered public accounting firm (and any associated person of that firm, to the extent determined appropriate by the Commission) that performs for any issuer any audit required by this title or the rules of the Commission under this title or, beginning 180 days after the date of commencement of the operations of the Public Company Accounting Oversight Board established under section 101 of the Public Company Accounting Reform and Investor Protection Act of 2002 (in this section referred to as the "Board"), the rules of the Board, to provide to that issuer, contemporaneously with the audit, any non-audit service, including nine types of non-audit service; section 202 provides that the aggregate amount of all such non-audit services provided to the issuer constitutes not more than 5 percent of the total amount of revenues paid by the issuer to its auditor.

<sup>5</sup> Some regulations on an auditor's civil liabilities are as follows: according to Clause 43 under the Certified Public Accountant Law of the People's Republic of China (1993), the audit firm shall be responsible for any loss to clients and to other stakeholders resulting from any law-violating act of the audit firm; according to Clause 202 under the Security Law of the People's Republic of China, the professional agencies that provide legal documents for issuance, initial public offering, or transactions of securities are responsible for any loss resulting from their mendacious statements.

<sup>6</sup> The above provisions could not offer effective protection for investors, especially the lack of civil liability for compensation. The judiciary department could not deal with this kind of case effectively, thus many small and medium investors suffered a tragic loss; for example, in the Hongguang case in Sichuan and the Daqing Lianyi case, the related responsible persons were not required to pay compensation. This series of cases has been more or less related to the low audit quality.

Markets” on 2 February 2003. According to Clause 7, under these provisions, audit firms, law firms, and assets evaluation agencies can be the defendant in a civil lawsuit arising from mendacious statements. According to Clause 24, professional service intermediaries and their direct responsible persons are liable for any loss incurred by investors resulting from mendacious statements made by such intermediaries in violation of Clauses 161 and 202 under the Securities Law. According to Clause 30, the penalty compensation shall be limited to the actual loss incurred by an investor due to the defendant’s mendacious statements. Overall, these provisions have actually increased auditors’ legal liability and their rent-seeking costs—the cost of compromising with their clients in doing earnings management—and hence enhanced auditors’ independence in reducing earnings management. Our study seeks to investigate the change in the effect of client importance on audit quality before and after the increase in auditors’ legal liability.

With regard to the effect of client importance on audit quality or the question of economic dependence, so far there is no conclusive view amongst existing overseas literature (Prawitt, 2000). However, there is an implicit assumption in such literature that the legal system is well developed and the overall credibility level is high. What we are now interested in is the extent of the effect of client importance on audit quality when the market is, like China’s, underdeveloped, the legal system is rapidly changing, and market participants lack credibility (Chinese Entrepreneurs’ Survey System, 2002). Since accounting is a dual-value system based on economic equality and individual firm efficiency (Chen *et al.*, 2005), the rapid change in the legal system will affect the cost effectiveness in earnings management and incentives for an individual to seek rent, thereby influencing the allocation of rent. Our results may change when the institutional environment changes. Further empirical work is for this reason required.

Specifically, this study examines the relationship between client importance and earnings management before and after the increase in auditors’ legal liability. Using a sample of firms listed on Chinese stock markets in 2002 and 2003, we find, after controlling the influence of other variables, that when auditors’ legal liability increases, (1) auditors will become more conservative and more likely to constrain earnings management behaviours as client importance increases; (2) the negative effect of client importance on audit quality still exists in small audit firms when compared with large audit firms, which can be explained by rent seeking in that small auditors may provide a certain level of freedom to their clients to do earnings management; however, an overall increase in audit quality is observed in these small audit firms as the positive effect of client importance on audit quality dominates the negative effect; and (3) there is asymmetry in reducing positive and negative earnings management in that auditors are more likely to reduce negative earnings management than positive earnings management, which may be considered a unique phenomenon that is inconsistent with earnings management found in the overseas markets.

Our main contributions are as follows: first, we examine the extent of the effect of client importance on audit quality when the legal system changes; second, we find evidence supporting an auditor’s conservatism by showing that there is an asym-

metry between positive earnings management constraints and negative earnings management constraints.

The rest of the paper will be organised as follows: section two provides the literature review and the research question; section three explains the research design; the empirical results and further analysis are presented in section four; and section five describes the sensitivity tests, the conclusions, and the limitations.

## **II. LITERATURE REVIEW AND RESEARCH QUESTION**

### **2.1 Literature Review**

Regarding the relationship between client importance and audit quality, there are two opposing views, both of which are supported by theories and empirical evidence. In the existing literature, client importance is measured by audit fees, non-audit service fees, and the percentage of an individual client's assets in total clients' assets of the audit firm or the percentage of individual sales in total sales. We will review all evidence from these two sides and from the perspectives of different measures.

#### **2.1.1 Client Importance Negatively Associated with Audit Quality**

It is viewed from this perspective that client importance will impair auditor independence and consequently reduce audit quality. DeAngelo (1981b) points out that actually there exists a bilateral monopoly between the audit firm and its client, and hence being afraid of losing its client, the audit firm may lose its independence and issue a favourable opinion on the client. And since a large portion of its revenue comes from large clients, the audit firm has a kind of economic dependence on these "important" clients, and this economic dependence will impair the auditor's independence and ability to constrain earnings management (Mautz and Sharaf, 1961; Cohen Commission (AICPA), 1978; Reynolds and Francis, 2001). The Securities and Exchange Commission (SEC) and the Cohen Commission also regard that low-balling in the audit market will generate a kind of accounts receivable, and this kind of economic dependence on the client will impair the auditor's independence, including the ability to constrain earnings management. The Ethics Committee of the International Federation of Accountants (IFAC) stipulated a regulation on professional ethics to address the issue of client importance, which is considered the main source of self-interest risks according to the exposure draft on proposed changes to the Code of Ethics for Professional Accountants released in June 2000. DeAngelo (1981b) points out that low-balling is a competition strategy resulting from market inefficiency and due to the small size of an audit firm. And because of the huge losses from reputation impairment, low-balling will not affect audit independence but the optimum level of audit independence is still below perfect. The SEC and other scholars also have the concern that if an audit firm provides non-audit services to its client, its independence could be impaired due to its higher economic dependence and greater involvement in managerial functions (Simunic, 1984; Parkash and Venable, 1993; Firth, 1997), thereby influencing its ability to constrain earnings management.

We can also find some empirical evidence supporting the negative effect of non-audit services on audit quality (including earnings management). Wines (1994) finds that the auditor is less inclined to issue a qualified opinion when a higher economic dependence is associated with non-audit services. In other words, non-audit services can increase economic dependence. Findings from Barkess and Simnett (1994) indicate the same phenomenon with reference to Australian data. Audit independence is impaired as the demand of non-audit services increases with the increase in the number of clients. Gore *et al.* (2001) also find that non-audit fees are positively associated with discretionary accruals, which is a reverse measure of audit quality, in the UK market. Bazerman *et al.* (1997) and Beeler and Hunton (2001) provide evidence using the experimental method that the provision of non-audit services will negatively influence an auditor's judgment. Frankel *et al.* (2002) also find a positive relationship between non-audit fees and discretionary accruals, and that non-audit fees are negatively associated with the share price movement of the client on the day of audit fee disclosure.

### 2.1.2 Client Importance Positively Associated with Audit Quality

This view is supported mainly by practitioners as well as some researchers. They argue that as auditors have to face high legal liability, the provision of non-audit services will not impair independence; on the contrary, their ability to detect problems is actually improved because these non-audit services can provide them with an opportunity to better understand their clients (Antle *et al.*, 1997; Pitt and Birenbaum, 1997). As mentioned above, DeAngelo (1981b) points out that low-balling is a competition strategy resulting from market inefficiency and due to the small size of an audit firm. And because of the huge losses from reputation impairment, low-balling will not affect audit independence. Some scholars view that non-audit services can help an audit firm increase investment in reputation capital; this can actually enhance independence and improve audit quality (Arruñada, 1999; Dopuch *et al.*, 2001).

This view is also supported by a lot of empirical evidence. Results from Palmrose (1986), Abdel-khalik (1990), and Davis *et al.* (1992) all indicate that non-audit services are associated with higher audit quality, inconsistent with the argument deduced by Simunic (1984) that economic dependence increases due to the knowledge spillover effect. Parkash and Venable (1993) and Firth (1997) find, based on US and UK data respectively, that firms facing high agency costs and demanding high audit quality are less likely to purchase non-audit services from the auditor. Frankel *et al.*<sup>7</sup> (2002) find that the higher the audit fees, the more constrained earnings management is. Ashbaugh *et al.* (2003) point out that the findings of Frankel

<sup>7</sup> The US Securities and Exchange Commission (SEC) requires that audit fees and non-audit fees should be disclosed in annual financial reports after 5 January 2001. This requirement also benefits researchers as more accurate data are available. Frankel *et al.* (2002) did a study with audit fee and non-audit fee data. They find that the higher the proportion of non-audit fees, the larger the extent of earnings management is allowed, and non-audit fees are negatively associated with the share price movement of the client on the day of audit fee disclosure; while higher audit fees are associated with more constraint by auditors on earnings management.

*et al.* (2002) are not robust and are quite sensitive to research design. The latter finds no negative effect of non-audit services on audit independence. Defond *et al.* (2002) focus on the effect of non-audit services and audit fees on the auditor's decision on whether to issue a modified unqualified audit opinion to firms facing going-concern uncertainty. They find that the percentage of non-audit fees in total audit fees will not influence the auditor's opinion. They also find that the higher the total audit fees, the more likely the auditor is to issue a modified unqualified audit opinion to those firms facing going-concern uncertainty. Chaney and Philipich (2002) find from the case of Andersen that the independence of Andersen is not impaired by non-audit fees. Reynolds and Francis (2001) examine the effect of client size on audit independence based on the importance of the individual client to the branch office of the auditor, represented by the natural logarithm of sales of one client divided by the logarithm of total sales of all clients audited by the branch office. They find that for local branches, the larger the client size, the more conservative the audit opinions are, indicating that client importance will not impair audit independence. Chung *et al.* (2003) conduct further tests employing the percentage of the sum of non-audit and audit fees from the individual client in total revenue of the branch office to measure client importance, and find that audit quality is not impaired by such importance. Craswell *et al.* (2002) use the probability of an auditor to issue a modified audit opinion as the dependent variable to test the effect of audit fee dependence on audit independence in the Australian market. They find that an increase in the audit fee dependence does not lower the auditor's propensity to issue a modified opinion.

### **2.1.3 Related Research in China**

In China, it is only after the audit fee disclosure requirement was stipulated by the Chinese Securities Regulatory Commission on 24 December 2001 that audit fee data for all listed firms became available. Therefore, research examining the association between client importance and audit quality is quite limited. Chen (2003) points out that in China, the crucial factor determining whether an audit firm can survive or not is the number of clients. Should the auditor say "no" to its client to maintain independence and audit quality but lose this client, it will most probably choose to please its client due to the economic stress, resulting in impaired audit quality. The study by Qing and Guo (2003) also points out that when audit fees received from a single client or a single group account for at least 15 percent of the audit firm's total revenue, this economic dependence could impair audit independence and audit quality. Han and Zhou (2003) find that audit fees are significantly correlated with client size, the number of subsidiaries, leverage, and audit opinions. Using a multiple regression method and a sample of 295 firms listed on the Shenzhen and Shanghai stock markets in 2002 with audit fee data disclosed in their financial statements, Zhang (2004) finds that evidence of opinion shopping exists in companies with high earnings management but not in those with low earnings management. Fang and Hong (2004) do not find any evidence of a negative effect of individual client importance on audit independence using a sample of firms posting a loss for

the first time. Overall, studies in China using data for 2002 or earlier show that client importance will negatively affect audit quality.

Audit quality is the joint probability that an existing problem is discovered and reported by the auditor (Watts and Zimmerman, 1983; DeAngelo, 1981). If audit quality is considered to be determined by audit independence and the professional skills of the auditor, the relationship between client importance and audit quality will be dependent on the combination of two relations: one between client importance and audit independence and the other between client importance and the professional skills of the auditor. As the professional system, legal regime, and vocational environment affecting these two relations are different subject to the relevant jurisdictions, uncertain trends are shown. As indicated in the existing overseas literature, there still exists controversy over the relationship between client importance and audit quality, except in the United States where the view that client importance will not negatively affect audit quality wins support on the whole. In China, as far as we know, research on the relationship between client importance and earnings management basically use data before 2002, and consider that client importance will affect audit quality on the premise that legal liability is relatively low. Therefore, this study mainly examines the effect of client importance on earnings management before and after the increase in legal liability using 2002 and 2003 data.

## 2.2 Research Question

As previously mentioned, since accounting is a dual-value system based on economic equality and individual firm efficiency, the change in the legal system will affect the cost effectiveness in earnings management and accordingly the incentives for an individual to seek rent, and will further influence the allocation of rent. An auditor's legal liability sharply increased after 2003 in China. We argue that the number of potential plaintiffs increases with the increase in client size. Therefore, an auditor's litigation risks increase with the size of its client when its civil liability is material. Meanwhile, overall market efficiency has improved. And this increases the auditor's loss function over reputation impairment. We expect that higher litigation risks, plus a larger loss accompanied with reputation impairment, will constrain the auditor's rent-seeking behaviour in performing its role of reducing earnings management. Although the negative effect of client importance on audit quality still exists, we predict that the above legal and market reasons will moderate or may even dominate this negative effect.

However, large and small audit firms may face different situations in respect of economic considerations. For a small audit firm, due to its small size and number of clients, the relatively large importance of a single client will make the economic dependence even stronger while less loss is incurred from reputation impairment or from losing a lawsuit. Another important difference related to audit quality is that a small audit firm has relatively fewer resources when compared with a large audit firm, so the former's investment in audit learning and training is quite limited. These limitations will constrain its ability to detect breaches in financial reports, thereby



lowering audit quality, even though the relevant legal liability has increased. Therefore, we expect that the above-mentioned moderating effect of legal and market factors on economic dependence will be less pronounced in small audit firms.

The research objectives of this study are to examine the change in the effect of client importance on audit quality before and after the legal environment changes, and to test whether this change is different in small and large audit firms. We are also interested in whether unique findings can be obtained in the unique environment setting of China.

### III. RESEARCH DESIGN

Earlier researchers, such as Healy (1985) and DeAngelo (1986), employ total accruals to proxy for earnings management by managers. Later, most studies use discretionary accruals to measure a manager's opportunistic behaviours and audit quality (Warfield *et al.*, 1995; Becker *et al.*, 1998; Reynolds and Francis, 2001; Frankel *et al.*, 2002; Myers *et al.*, 2003; Ashbaugh *et al.*, 2003; Xia, 2003; Liu, 2006). In this study, we employ both discretionary accruals ( $DA_t$ ) and total accruals including below-the-line items ( $TA_t$ ) as dependent variables to proxy for earnings management and audit quality.

It is found in some studies that discretionary accruals estimated with the modified Jones model can reliably measure earnings management (Bartov, Gul, and Tsui, 2001; Kothari, 2005). Xia (2003) compares the empirical performances of all the available discretionary accrual estimation models using data from Chinese stock markets. He finds that the cross-sectional Jones model by industry with total accruals (excluding below-the-line items) as the independent variable performs best in the Chinese setting. In this study, we employ this model to estimate non-discretionary accruals as the following. And then the difference between total accruals (including below-the-line items) ( $TA_t$ ) and estimated non-discretionary accruals ( $NDA_t$ ) is calculated as discretionary accruals ( $DA_t$ ):

$$NDA_t = a_1(1/A_{t-1}) + a_2(\Delta REV_t/A_{t-1}) + a_3(PPE_t/A_{t-1}), \quad (1)$$

where  $NDA_t$  is non-discretionary accruals of period  $t$  adjusted by total assets at the end of the previous period;  $\Delta REV_t$  is the change in operating profits from the previous period to period  $t$ ;  $PPE_t$  is the total fixed asset value of property, plant, and equipment at the end of period  $t$ ;  $A_{t-1}$  is total assets at the end of period  $t - 1$ ; and  $a_1$ ,  $a_2$ , and  $a_3$  are parameters of various industries and years. These parameters are first estimated with the following regression equation for each year and industry:

$$GA_t/A_{t-1} = a_1(1/A_{t-1}) + a_2(\Delta REV_t/A_{t-1}) + a_3(PPE_t/A_{t-1}) + \varepsilon_t, \quad (2)$$

where  $a_1$ ,  $a_2$ , and  $a_3$  are OLS estimated values;  $GA_t = EBXI_t - CFO_t$ , where  $GA_t$  is total accruals excluding below-the-line items for period  $t$ ,  $EBXI_t$  is operating profits for period  $t$ , and  $CFO_t$  is operating cash flows for period  $t$ . Other variables have the same definitions as in equation (1).

$$DA_t = TA_t / A_{t-1} - NDA_t, \quad (3)$$

where  $DA_t$  is discretionary accruals for period  $t$  adjusted by total assets at the end of the previous period;  $TA_t = NI_t - CFO_t$ , where  $TA_t$  is total accruals including below-the-line items for period  $t$ ,  $NI_t$  is net profits, and  $CFO_t$  is operating cash flows for period  $t$ . Other variables have the same definitions as in equation (1).

To measure the independent variable, client importance, theoretically, the percentage of audit fees or non-audit fees received from one individual client in total audit fees and non-audit fees received from all clients of the audit firm should be used. However, this measure is inappropriate in the Chinese setting for the following reasons: (1) In China, currently, the disclosure standards are inconsistent in that disclosed audit fees may be recognised as actual payments or accounts receivable; (2) when several audit firms provide audit services to the same client,<sup>8</sup> the disclosed audit fees are actually the total payments made by that client without individual payment breakdown; and (3) audit fees and non-audit fees are not separated. In overseas research, the logarithm of the client's sales is usually employed as a proxy for audit fees (Craswell *et al.*, 1995; Francis, 1984; Reynolds *et al.*, 2001) to measure client importance. But in China, audit fees are more related to size than sales, so we use instead the logarithm of total assets as the proxy for audit fees to measure client importance.

For control variables, Dechow *et al.* (1995) point out that discretionary accruals are negatively associated with operating cash flows. The study by Press and Weintrop (1990) shows that when a company has high leverage, its managers could have strong incentives to relieve the company's financial crisis through earnings management. Defond and Jiambalvo (1994) and Warfield *et al.* (1995) also provide evidence that discretionary accruals are positively associated with leverage. Becker *et al.* (1998) point out that size should be included as a control variable to proxy for a number of omitted variables to improve the correctness of the model. Therefore, we add the logarithm of sales into the regression model to proxy for size. Previous year's discretionary accruals are also included considering the negative relationship between consecutive years of earnings management. The study by Ghosh and Moon (2003) shows that the magnitude of discretionary accruals in high growth firms (*GW*) is higher. It is also found by some research in China that whether the audit firm and its client are in the same city or region can influence audit quality.<sup>9</sup>

<sup>8</sup> For example, the following companies (code: 600188, 600028, 600695, 000019, 600600, 000045, 000726, 600272, 600555, 600689, 600851, 000488) hired two auditors, one foreign firm and one domestic firm, but they did not disclose the audit fees paid to each auditor separately.

<sup>9</sup> It can be found from the data that non-local clients are more likely to receive a modified audit opinion than local clients in both 2001 and 2002. In 2003, the percentage of non-local clients receiving a modified unqualified audit opinion is 1.39 percent higher than that of local clients. But within the group receiving modified audit opinions, local clients are more likely to receive a qualified opinion than non-local clients. (*Who Audits the Chinese Stock Market—An Analysis on Audit Market*, 2003, p. 19).

Therefore, we define that dummy *Locality*<sub>*i*</sub> equals one if the audit firm is a local firm for the client, and zero otherwise, to control the influence of locality on audit quality.

Following previous studies in this area (Defond and Subramanyam, 1998; Becker *et al.*, 1998; Reynolds *et al.*, 2001; Lee *et al.*, 2004), we use the regression method with audit quality as a dependent variable and client importance and other control variables as independent variables to examine the effect of client importance on audit quality. The regression model is as follows:

$$|DA_t| \text{ or } |TA_t| = \beta_0 + \beta_1 IMPOR_t + \beta_2 OCF_t + \beta_3 SIZE_t + \beta_4 LEV_t + \beta_5 |DA_{t-1}| + \beta_6 GW_t + \beta_7 LOCAL + \varepsilon_t, \quad (4)$$

where:

*t* is year number;

*DA<sub>t</sub>* is discretionary accruals divided by total assets at the beginning of the year;

*TA<sub>t</sub>* is total accruals divided by total assets at the beginning of the year;

*IMPOR<sub>t</sub>* is the ratio of the logarithm of total assets of one client to the logarithm of total assets of all clients of the audit firm;

*OCF<sub>t</sub>* is operating cash flows divided by total assets at the beginning of the year;

*LEV<sub>t</sub>* equals total liabilities at the year-end divided by total assets at the beginning of the year;

*SIZE<sub>t</sub>* is the size of the client measured by the logarithm of sales;

*DA<sub>t-1</sub>* is the previous year's discretionary accruals divided by total assets at the beginning of the year before the previous year;

*GW<sub>it</sub>* is the growth rate of sales of client *i* for period *t*, calculated as the year-on-year ratio of major operating income;

*Local<sub>it</sub>*<sup>10</sup> takes the value of one if the domicile of client *i* and the audit firm hired for period *t* are located in the same provincial administrative region, and zero otherwise.

To test the difference in the effect of client importance between large and small audit firms, we divide all the sample firms into small (firm size is smaller than sample median) and large (firm size is larger than sample median) sub-samples based on the size of the audit firm, which is represented by the logarithm of total assets of all clients of that firm. We also define the size dummy represented by *GS<sub>t</sub>*, which takes the value of one if the firm belongs to the small sub-sample, and zero otherwise. We then add the interaction term *IMPOR<sub>t</sub>\*GS<sub>t</sub>* into the regression

<sup>10</sup> *Locality<sub>i</sub>* is defined as follows: if the auditor and the domicile of its client are located in the same provincial administrative region in the financial reporting year, it takes the value of one, and zero otherwise. If there exists no merger, the domicile of the audit firm will be used; if there exists a merger, both domiciles before and after the merger will be used. If the audit firm is a branch of one of the international Big Five (or Big Four) Firms in China, this audit firm is treated as a non-local auditor. This is because Big Five (or Big Four) auditors with branches in various regions in China are unlikely to be subject to local political and economic influence.

equation (4). The coefficient of this interaction term is predicted to be positive and significant.

#### IV. SAMPLE SELECTION AND DESCRIPTIVE STATISTICS

To investigate the change in the effect of client importance on audit quality before and after the change in legal liability, we choose firms listed on China stock markets in 2002 and 2003 as research subjects. We delete all firm-year observations belonging to the industry with less than 30 firms when calculating discretionary accruals. The standards of industry categorization adopted by the CSRC are employed. As a large portion of firms are from the manufacturing industry, we classify these firms further using two-digit industry codes (for the manufacturing industry, 16 firms assigned with the code C9, 2 with C2, and 24 with C3; all are classified under the same category, totalling 42 firms). Other firms are represented by one-digit industry codes. We delete all listed financial firms. Since the previous year's data will be used in calculating discretionary accruals, the smaller sample size is chosen for two consecutive years. Finally, we obtain 1121 firm observations for 2002 and 1132 for 2003.

All the financial data of the listed firms are extracted from the China Stock Market and Accounting Research (CSMAR) database, and audit firm data from the WIND database. For the few missing values, we directly search the firm's annual report at <http://www.jrj.com.cn>. Statistical software used in this study mainly includes Eview3.1 and SPSS11.5.

The major statistics of all variables are presented in Table 1. The mean of client importance for 2002 is 0.0616. The mean of client importance for the small sub-sample ( $IMPOR_{i, \text{小所}}$ ) is 0.1260, and 0.0407 for the large sub-sample ( $IMPOR_{i, \text{大所}}$ ). The difference is statistically significant ( $P < 0.00001$ ). The mean of client importance for 2003 is 0.0622 for all samples. The mean of client importance for the small sub-sample is 0.1414, and 0.0404 for the large sub-sample. The difference is statistically significant ( $P < 0.00001$ ). For both years, the average client importance is higher for small firms than for large firms due to the fact that small firms have a smaller average number of clients. For 2002, the mean of  $DA_i$  is  $-0.0398$  and the mean of  $|DA_i|$  is 0.0495, of which 163 samples show positive  $DA_i$  and 958 show negative  $DA_i$ . For 2003, the mean of  $DA_i$  is  $-0.0285$  and the mean of  $|DA_i|$  is 0.0497, of which 211 samples show positive  $DA_i$  and 921 show negative  $DA_i$ . For both years, the number of observations showing negative  $DA_i$  is greater than that showing positive  $DA_i$ , and this is consistent with previous literature (Becker *et al.*, 1998; Francis *et al.*, 1999).

The Spearman and Pearson correlation matrix is presented in Table 2.<sup>11</sup> From the Spearman test, we find that the absolute value of discretionary accruals ( $|DA_i|$ ) is significantly and positively correlated with client importance ( $IMPOR_i$ ), significantly and positively correlated with operating cash flows ( $OCF_i$ ), and significantly and

<sup>11</sup> For simplicity, only the correlation matrix for 2003 is presented as the correlations and results of regression analysis for 2002 are basically consistent.

**Table 1** Descriptive Statistics

2002	Sample size	Mean	Standard deviation	Median	Minimum	Maximum
$DA_t$	1121	-0.0398	0.0821	-0.0341	-1.5127	0.1447
$ DA_t $	1121	0.0495	0.0767	0.0373	2.90E-05	1.5127
$DA_t > 0$	163	0.0332	0.0328	0.0224	0.0001	0.1447
$DA_t < 0$	958	-0.0522	0.0815	-0.0385	-1.5127	-2.90E-05
$TA_t$	1121	-0.0429	0.1381	-0.0342	-1.8554	0.9000
$ TA_t $	1121	0.0810	0.1198	0.0512	7.99E-05	1.8554
$OCF_t$	1121	0.0534	0.1030	0.0503	-0.7531	0.9446
$LEV_t$	1121	0.3720	0.0763	0.4632	0.0004	0.7907
$SIZE_t$	1121	20.1266	1.3534	20.1506	12.7894	26.5045
$DA_{t-1}$	1121	-0.0220	0.0611	-0.0215	-0.4439	0.7691
$GW_t$	1121	1.3800	3.3745	1.1300	0.0131	87.4000
$LOCAL_t$	1121	0.6271	0.4837	1.0000	0.0000	1.0000
$IMPOR_t$	1121	0.0616	0.0619	0.0467	0.0119	1.0000
$IMPOR_{t, \text{大所}}$	847	0.0407	0.0150	0.0416	0.0119	0.0760
$IMPOR_{t, \text{小所}}$	274	0.1260	0.0976	0.0892	0.0644	1.0000
2003	Sample size	Mean	Standard deviation	Median	Minimum	Maximum
$DA_t$	1132	-0.0285	0.0818	-0.0284	-0.6146	1.3586
$ DA_t $	1132	0.0497	0.0709	0.0355	5.47E-05	1.3586
$DA_t > 0$	211	0.0568	0.1141	0.0273	7.79E-05	1.3586
$DA_t < 0$	921	-0.0481	0.0565	-0.0364	-0.6146	-5.47E-05
$TA_t$	1132	-0.0300	0.1398	-0.0267	-1.0791	1.4818
$ TA_t $	1132	0.0808	0.1179	0.0491	5.35E-05	1.4818
$OCF_t$	1132	0.0479	0.1275	0.0478	-1.3799	1.1708
$LEV_t$	1132	0.0372	0.0663	0.0173	3.90E-05	0.7707
$SIZE_t$	1132	20.2946	1.3929	20.3205	13.3554	24.8140
$DA_{t-1}$	1132	-0.0399	0.0820	-0.0341	-1.5128	0.1447
$GW_t$	1132	1.3842	2.6755	1.1759	0.0001	78.8110
$LOCAL_t$	1132	0.6074	0.4885	0.6074	0.0000	1.0000
$IMPOR_t$	1132	0.0622	0.0782	0.0451	0.0105	1.0000
$IMPOR_{t, \text{大所}}$	887	0.0404	0.0155	0.0413	0.0105	0.0763
$IMPOR_{t, \text{小所}}$	245	0.1414	0.1394	0.0948	0.0587	1.0000

negatively correlated with client size ( $SIZE_t$ ). We also find that the absolute value of discretionary accruals is negatively correlated with locality but not significantly, and positively correlated with the previous year's absolute value of discretionary accruals ( $|DA_{t-1}|$ ) and client growth but not significantly. From the Pearson test, we find that the absolute value of discretionary accruals ( $|DA_t|$ ) is positively correlated with client importance ( $IMPOR_t$ ) but not significantly, and negatively and significantly correlated with operating cash flows ( $OCF_t$ ), client size ( $SIZE_t$ ), and locality. We also find that the absolute value of discretionary accruals is positively



correlated with the previous year's absolute value of discretionary accruals ( $|DA_{t-1}|$ ) and leverage ( $LEV_t$ ) but not significantly, while it is significantly and positively correlated with client growth. All the signs of the correlation are consistent with the predictions except for the correlation between client importance and audit quality. Client importance is highly correlated with leverage (0.654 from the Pearson test and 0.532 from the Spearman test). Correlations between client importance and other independent variables are quite low (all below 0.65). Overall, collinearity between independent variables should not be a problem.

From the Pearson test, we find that the absolute value of total accruals ( $|TA_t|$ ) is positively correlated with client importance ( $IMPOR_t$ ) but not significantly, negatively and significantly correlated with operating cash flows ( $OCF_t$ ) and client size ( $SIZE_t$ ), positively and significantly correlated with leverage ( $LEV_t$ ) and client growth, and negatively but not significantly correlated with the previous year's absolute value of discretionary accruals ( $|DA_{t-1}|$ ) and locality. From the Spearman test, we find that the absolute value of total accruals ( $|TA_t|$ ) is negatively but not significantly correlated with client importance ( $IMPOR_t$ ), positively and significantly correlated with operating cash flows ( $OCF_t$ ) and leverage, negatively and significantly correlated with client size, positively but not significantly correlated with the previous year's discretionary accruals ( $DA_{t-1}$ ), and negatively but not significantly correlated with locality and client growth. The results of the two tests are basically consistent with the predictions.

## V. EMPIRICAL RESULTS AND FURTHER ANALYSIS

### 5.1 Analysis of Empirical Results

The results on the association between client importance and discretionary accruals are presented in Table 3. It is found that after the auditor's litigation risks increase, client importance ( $IMPOR_t$ ) is negatively and significantly correlated with the absolute value of total accruals ( $|TA_t|$ ) (coefficient is  $-0.174$ ; p-value is 0.002) as well as with the absolute value of discretionary accruals ( $|DA_t|$ ) (coefficient is  $-0.073$ ; p-value is 0.050). Before the auditor's legal liability increases (2002 data), the correlations between client importance and the absolute value of total accruals and the absolute value of discretionary accruals are still negative but not significant. These results indicate that with the increase in the auditor's legal liabilities, the higher the client importance or the stronger the economic dependence, the more conservative the auditor will become to constrain earnings management.

To further test whether small audit firms are more likely to be negatively affected by client importance when compared with large audit firms, an interaction term between client importance and audit firm size dummy ( $IMPOR_t * GS_t$ ) is added into the regression equation (4),<sup>12</sup> and the results are reported in the right half of Table 3. Based on empirical results for 2003, the coefficient on the interaction term is positive (0.438) and significant ( $p = 0.006$ ) when the absolute value of total accruals is

<sup>12</sup> If  $IMPOR_t$ ,  $GS_t$ , and  $IMPOR_t * GS_t$  are all included in the regression model, severe collinearity problems may arise. Therefore, this study does not incorporate these three variables concurrently.

a dependent variable, and still positive (0.181) and significant ( $p=0.080$ ) when the absolute value of discretionary accruals is a dependent variable. However, for 2002, the two coefficients on the interaction term are still positive but not significant with absolute total accruals and absolute discretionary accruals as dependent variables respectively. Overall, the results in Table 3 indicate that audit firms under higher litigation risks tend to be more conservative and more likely to constrain earnings management behaviours by managers, but for small audit firms, the economic dependence from client importance dominates the litigation risk effect.

The coefficient on client importance ( $\beta_1$ ) represents the effect of client importance on audit quality for large audit firms. The coefficient on the interaction term ( $\beta_2$ ) represents the incremental effect of client importance on audit quality for small audit firms when compared with large audit firms.  $\beta_1 + \beta_2$  represents the overall effect of client importance on audit quality for small audit firms. As found in Table 3,  $\beta_2$  is positive and significant, indicating that when compared with large audit firms, small audit firms are less likely to constrain earnings management when the audited client is important. In other words, when the client is important, the audit quality of a small audit firm is lower than that of a large audit firm. In addition,  $\beta_1$  is negative and its magnitude is always larger than the magnitude of  $\beta_2$ , meaning that even though small firms are more likely to be affected by economic dependence than larger firms, the net effect of client importance on audit quality is still positive; in other words, the litigation risk effect dominates the economic dependence effect. Meanwhile, as shown in Table 3 (2003 data), the coefficient on client importance after adding the interaction term is significantly negative ( $\beta_2 = -0.649$  and  $p=0.000$ ) when the absolute value of total accruals is a dependent variable, and still significantly negative ( $\beta_3 = -0.269$  and  $p=0.023$ ) when the absolute value of discretionary accruals is a dependent variable. So these results are still consistent with the conclusion based on the left half of Table 3.

Based on the 2003 results in Table 3, the samples for 2003 are further divided into two sub-samples: one consists of clients audited by large audit firms and the other of clients audited by small audit firms. Regression analyses are conducted on these two sub-samples as shown in Table 4. We find that whether for large or small firms, client importance and the absolute value of total accruals are significantly and negatively correlated in both cases after legal liability increases. However, in cases when the absolute value of total accruals is a dependent variable and when the absolute value of discretionary accruals is a dependent variable, the coefficients on client importance are  $-0.624$  and  $-0.178$  respectively for the large sub-sample, and  $-0.209$  and  $-0.108$  respectively for the small sub-sample. The coefficients on client importance for the large sub-sample are greater than those for the small sub-sample in both cases. This indicates that as legal liability increases, large audit firms tend to be more conservative towards important clients and more able to constrain earnings management. These results still support the conclusion based on Table 3.

For the control variables, the coefficients on  $OCF_t$ ,  $SIZE_t$ , and  $LEV_t$  are basically consistent with the predictions.  $|DA_{t-1}|$  and  $LOCAL_t$  have their predicted signs but are not significant. The sign of the coefficient on  $GW_t$  is inconsistent with the prediction.



Table 3 Effect of Client Importance on Earnings Management

	Predicted sign	2002 (N = 1121)		2003 (N = 1132)		2002 (N = 1121)		2003 (N = 1132)	
		TA <sub>i</sub>	DA <sub>i</sub>	TA <sub>i</sub>	DA <sub>i</sub>	TA <sub>i</sub>	DA <sub>i</sub>	TA <sub>i</sub>	DA <sub>i</sub>
$\beta_0$		.315 (.000)	.268 (.000)	.504 (.000)	.290 (.000)	.326 (.000)	.270 (.000)	.526 (.000)	.299 (.000)
<i>IMPOR<sub>i</sub></i>	-	-.081 (.184)	-.051 (.176)	-.174 (.002)	-.073 (.050)	-.356 (.109)	-.093 (.504)	-.649 (.000)	-.269 (.023)
<i>IMPOR<sub>i</sub> * GS<sub>i</sub></i>	+					.246 (.197)	.037 (.757)	.438 (.006)	.181 (.080)
<i>OCF<sub>i</sub></i>	-	.025 (.499)	.078 (.001)	-.197 (.000)	-.037 (.042)	.025 (.503)	.078 (.001)	-.199 (.000)	-.038 (.036)
<i>SIZE<sub>i</sub></i>	+/-	-.012 (.000)	-.012 (.000)	-.021 (.000)	-.012 (.000)	-.013 (.000)	-.012 (.000)	-.021 (.000)	-.012 (.000)
<i>LEV<sub>i</sub></i>	+	.016 (.000)	.013 (.000)	.422 (.000)	.161 (.001)	.016 (.000)	.013 (.000)	.425 (.000)	.162 (.001)
$ DA_{t-1} $	-	-.077 (.226)	.004 (.913)	-.040 (.341)	-.017 (.538)	-.075 (.235)	.005 (.908)	-.043 (.309)	-.018 (.513)
<i>GW<sub>i</sub></i>	+	.001 (.908)	.000 (.529)	.003 (.010)	.004 (.000)	8.006E-05 (.942)	.000 (.522)	.003 (.007)	.004 (.000)
<i>LOCAL<sub>i</sub></i>	?	.004 (.654)	.006 (.211)	.000 (.987)	-.007 (.109)	.004 (.615)	.006 (.207)	.001 (.876)	-.007 (.130)
$R^2$		.135	.216	.143	.082	.137	.216	.149	.084
<i>adj. R<sup>2</sup></i>		.128	.210	.137	.075	.129	.209	.142	.076
F-statistic		20.481	36.122	22.010	21.010	18.142	31.588	20.543	10.776
Prob(F-statistic)		(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)	(.000)

Note: (1)  $GS_i$  is audit firm size dummy. It takes the value of one if the firm size is less than the sample median, and zero otherwise. If the firm size exactly equals the sample median, we give the value of zero.  $GS_i$  has the same definition as for Table 6. (2) The numbers in brackets are p-values in Tables 4, 5, and 6.

**Table 4** Effect of Client Importance on Earnings Management for Large and Small Audit Firms

	Predicted sign	Large audit firm sub-sample (N = 887)		Small audit firm sub-sample (N = 245)	
		TA <sub><i>t</i></sub>	DA <sub><i>t</i></sub>	TA <sub><i>t</i></sub>	DA <sub><i>t</i></sub>
$\beta_0$		.525 (.000)	.278 (.000)	.508 (.000)	.377 (.000)
<i>IMPOR<sub><i>t</i></sub></i>	-	-.624 (.013)	-.178 (.098)	-.209 (.002)	-.108 (.006)
<i>OCF<sub><i>t</i></sub></i>	-	-.311 (.000)	-.111 (.000)	.094 (.148)	.142 (.000)
<i>SIZE<sub><i>t</i></sub></i>	+/-	-.021 (.000)	-.011 (.000)	-.023 (.000)	-.017 (.000)
<i>LEV<sub><i>t</i></sub></i>	+	.511 (.001)	.207 (.044)	.449 (.000)	.193 (.000)
DA <sub><i>t-1</i></sub>	-	-.037 (.376)	-.007 (.810)	.023 (.870)	-.035 (.673)
<i>GW<sub><i>t</i></sub></i>	+	.001 (.467)	.002 (.004)	.023 (.000)	.018 (.000)
<i>LOCAL<sub><i>t</i></sub></i>	?	-.003 (.688)	-.007 (.157)	.011 (.435)	-.005 (.540)
<i>R</i> <sup>2</sup>		.207	.104	.224	.319
<i>adj.R</i> <sup>2</sup>		.200	.097	.201	.298
F-statistic		30.480	13.634	9.469	15.316
Prob(F-statistic)		(.000)	(.000)	(.000)	(.000)

## 5.2 Further Analysis

As discussed in previous overseas literature, auditors treat positive and negative earnings management asymmetrically due to their asymmetric loss function over their inability to detect positive and negative earnings management. They are thus more likely to constrain positive earnings management than to constrain negative earnings management. There even exists some kind of "encouragement" to negative earnings management among auditors (Defond and Jiambalvo, 1994; Becker *et al.*, 1998; Francis and Krishnan, 1999; Kellogg, 1984; Trompeter, 1994). Under such circumstances, some information content may be lost when using the absolute values of total accruals and discretionary accruals to measure earnings management. In this study, therefore, all the firm-year observations are further divided into positive earnings management and negative earnings management sub-samples according to total accruals and discretionary accruals to test whether the effect of client importance on audit quality is asymmetric over positive and negative earnings management.

Regression analyses are conducted on total accruals and discretionary accruals for the positive and negative earnings management sub-samples respectively using the method employed for Table 3. The results are reported in Table 5. For the negative earnings management sub-sample,  $\beta_1$  is significantly positive for 2003 with the coefficient being 0.164 and the p-value 0.001 when total accruals is a dependent variable, and the coefficient being 0.106 and the p-value 0.004 when discretionary accruals is a dependent variable, indicating that the auditor can exert a reducing effect on negative earnings management. For 2002,  $\beta_1$  is still positive but not significant for the negative sub-sample, indicating that the auditor is less likely to constrain negative earnings management. For the positive earnings management sub-sample,  $\beta_1$  is 0.089 and  $p=0.162$  for 2003 when total accruals is a dependent variable, and  $\beta_1$  0.036 and  $p=0.656$  when discretionary accruals is a dependent variable, indicating that the auditor does not constrain positive earnings management efficiently. For 2002,  $\beta_1$  is negative but not significant for the positive sub-sample in both cases, also indicating that the auditor does not constrain positive earnings management.

The interaction term between client importance and audit firm size ( $IMPOR_i * GS_i$ ) is further added in the above test, and the results are presented in Table 6. For the positive earnings management sub-sample, the coefficient on client importance is negative and the coefficient on the interaction term is positive for 2003 when discretionary accruals is a dependent variable; both are consistent with the predictions. In the case when total accruals is a dependent variable, the coefficient on client importance is positive, which is inconsistent with the prediction, while the coefficient on the interaction term is positive, which is consistent with the prediction, but both values are insignificant. The coefficients on client importance and the interaction term are both insignificant for 2002. These results indicate that auditors exert no reducing effect on positive earnings management for both 2002 and 2003 (basically consistent with Table 5). And there is no difference between large and small audit firms in defending against client importance.

For the negative earnings management sub-sample, the coefficients on client importance and the interaction term both have their predicted signs for 2003 (all positive for the former and all negative for the latter, and both are significant) when total accruals and discretionary accruals are dependent variables respectively. These results indicate that the auditor can constrain negative earnings management by important clients, but small firms will be influenced by the economic dependence from an important client, resulting in fewer constraints on earnings management. In addition, as the coefficient on the interaction term is significantly negative as shown in Table 6, large audit firms are more likely to constrain negative earnings management by important clients than small audit firms, indicating a higher audit quality. For 2002, the coefficients on client importance and the interaction term have their predicted signs but are not significant – a result totally different from that for 2003. This could be explained by the fact that with the increase in litigation risks, auditors become more conservative and pay more attention to negative earnings management but are unable to constrain positive earnings management.

Table 5 Effect of Client Importance on Positive and Negative Earnings Management

	2002		2003		2002		2003			
	Predicted sign	TA > 0 N = 325	DA > 0 N = 163	TA > 0 N = 380	DA > 0 N = 211	Predicted sign	TA < 0 N = 796	DA < 0 N = 958	TA < 0 N = 752	DA < 0 N = 921
$\beta_0$		.018 (.690)	.006 (.903)	-.143 (.003)	.126 (.228)		-.335 (.000)	-.314 (.000)	-.673 (.000)	-.320 (.000)
$IMPOR_t$	-	-.024 (.435)	-.043 (.324)	.089 (.162)	.036 (.656)	+	.130 (.140)	.049 (.248)	.164 (.001)	.106 (.004)
$OCF_t$	-	-.761 (.000)	-.071 (.006)	-.965 (.000)	-.415 (.000)	-	-.315 (.000)	-.083 (.002)	-.564 (.000)	-.177 (.000)
$SIZE_t$	+/-	.001 (.508)	.002 (.384)	.009 (.000)	-.002 (.698)	+/-	.015 (.000)	.014 (.000)	.032 (.000)	.014 (.000)
$LEV_t$	+	.003 (.023)	.001 (.007)	-.084 (.121)	-.180 (.097)	-	-.018 (.000)	-.015 (.000)	-.414 (.000)	-.236 (.000)
$DA_{t-1}$	+/-	.037 (.401)	.065 (.187)	-.015 (.652)	-.007 (.899)	+/-	.034 (.659)	.038 (.387)	-.035 (.332)	-.005 (.840)
$GW_t$	+	-.001 (.395)	-.008 (.093)	.000 (.473)	.001 (.291)	-	-.001 (.692)	.000 (.545)	-.001 (.663)	.000 (.958)
$LOCAL_t$	+/-	-.004 (.483)	-.003 (.628)	-.006 (.267)	-.032 (.024)	+/-	-.016 (.121)	-.006 (.286)	-.001 (.858)	-.008 (.296)
$R^2$		.783	.127	.895	.403		.201	.260	.326	.187
$adj.R^2$		.777	.078	.892	.378		.192	.254	.319	.179
F-statistic		132.603	12.600	369.186	15.638		23.467	39.514	42.309	24.691
Prob (F-statistic)		(.000)	(0.000)	(.000)	(.000)		(.000)	(.000)	(.000)	(.000)

These results also show that there may exist some inconsistencies between our findings on earnings management in China and those of previous studies in the United States and western countries (Defond and Jiambalvo, 1994; Becker *et al.*, 1998; Francis and Krishnan, 1999; Kellogg, 1984; Trompeter, 1994). This could be explained by the following. Before the increase in litigation risks, auditors have little incentives to constrain both positive and negative earnings management, and low audit quality is the result of unilateral compromise from auditors. While after the increase in legal liability, and because of the very strict regulatory requirements for IPO, new share issuance, qualifications for placement, and ST and PT stocks, clients, especially important clients, have strong incentives to increase earnings through earnings management to meet these requirements. The client's rigid attitude towards downward earnings adjustment makes it difficult for the auditor to constrain positive earnings management. On the other hand, since clients have few incentives to practise, and are rarely involved in, negative earnings management, auditors are more effective in constraining negative earnings management. This may in fact be the result of mutual compromise between the client and the auditor after the increase in legal liability.

## VI. SENSITIVITY TESTS, CONCLUSIONS, AND LIMITATIONS

### 6.1 Sensitivity Tests

We conduct the following sensitivity tests to make our results robust.<sup>13</sup>

1. To exclude the influence of outliers, we delete those observations exceeding three standard deviations. Thirty-two firm observations are deleted, and the regression analysis is conducted again based on Table 3. Similar results are obtained except that in the regression with the absolute value of discretionary accruals as a dependent variable, the significance of the coefficient on the interaction term decreases ( $p=0.213$ ).

2. As shown in the correlation matrix, the correlation between client importance ( $IMPOR_i$ ) and leverage ( $LEV_i$ ) is quite high (0.532 from the Spearman test, and 0.654 from the Pearson test). In order to differentiate the effects of these two variables, we include the interaction term between client importance and leverage ( $IMPOR_i * LEV_i$ ) in the regression model, where  $LEV_i$  is a leverage dummy. It takes the value of one if leverage is higher than the sample median, and zero otherwise. The purpose of including the interaction term is to test whether the effect of client importance on audit quality will be different under different levels of leverage and whether the main result will change. We find that after inclusion of the interaction term, the coefficient on client importance is still positive and significant and the coefficient on the interaction term is positive but insignificant ( $p\text{-value}=0.231$ ) when the absolute value of discretionary accruals is a dependent variable. In the case when the absolute value of total accruals is a dependent variable, after inclusion of the interaction term, the coefficient on client importance is still positive and significant

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<sup>13</sup> Sensitivity tests are conducted only on 2003 data.



and the coefficient on the interaction term is also positive and significant ( $p$ -value = 0.0059). These results indicate that the association between client importance and audit quality (measured by  $|DA_t|$  and  $|TA_t|$ ) is basically not affected by leverage.

3. The regression analysis using the raw value of discretionary accruals of the previous year as a dependent variable sees similar results.

4. To test whether the results in Table 3 are sensitive to the way we measure client importance and earnings management, we assign a client dummy to proxy for client importance. It takes the value of one if client importance is higher than the sample median, and zero otherwise. We also use the variance of accruals ( $DA_t$  and  $TA_t$ ) to test the difference between clients of high and low importance in earnings management. We find that clients of high importance do not have more room for earnings management than those of low importance, and this supports the conclusion based on Table 3.

5. We employ the ratio of the logarithm of total audit fees from the audited client to the logarithm of total audit fees from all listed companies audited by the firm in calculating client importance and get regression results similar to those in Tables 3, 4, 5, and 6.

6. Industry dummies (assigned as A, C, D, F, G, H, J, K, and M) are included in the main regression of Table 3 to see whether industry will affect the main results. The conclusion is found to be basically unchanged.

7. We also assign dummies for control in respect of companies issuing both H shares and B shares. The main findings in Tables 3, 5, and 6 still hold.

8. For new auditors who have entered into contracts for less than two years, we assign a dummy for control, and the main findings in Tables 3, 5, and 6 remain unchanged.

## 6.2 Conclusions and Limitations

Recently, the question concerning the relationship between client importance and audit quality has drawn lots of attention from both regulators and researchers. However, most research on this question is conducted using data for 2002 or earlier, during which the legal liability of auditors was low. A negative relationship between client importance and audit quality was found in these studies. Our study tries to examine whether the effect of client importance on audit quality is different after auditors' legal liability increases. Using a sample of companies listed on Chinese stock markets in 2002 and 2003, we find an overall improvement of audit quality after the increase in legal liability in China and some unique phenomena in the Chinese audit market.

In particular, after controlling other influential factors, we obtain the following findings: when the auditor's legal liability increases, (1) auditors actually become more conservative and more efficient in constraining earnings management with the increase in client importance; (2) the effect of client importance on auditors still exists in small audit firms when compared with large audit firms; that is, auditors from small firms will allow a certain degree of earnings management for rent seeking, but overall, even in small audit firms, the positive effect still dominates the negative

effect of client importance on audit quality, showing an overall improvement in audit quality in China; these findings are inconsistent with the findings before the increase in auditors' legal liability in 2003 (Chen, 2003; Qin and Guo, 2003; Han and Zhou, 2003; Zhang, 2004), providing supporting evidence for the regulation; and (3) in China, auditors pay more attention to and are more efficient in constraining negative earnings management than in constraining positive earnings management; the direction of this asymmetry is contrary to that in the United States and other western markets.

The main limitation of this study lies in the sample constraint. A potential concern is that as there is only one year of data available after the increase in litigation risks in 2003, the external validity could be impaired. But considering the large sample size, the multi-variable regression method employed in the study, and the number of sensitivity tests, we believe that the results are reliable. One future research opportunity in this area is to examine the unique phenomena of audit quality and earnings management in China as the system of the Chinese capital market develops.

## REFERENCES

Please see P.68–71