

# 会计稳健性与企业筹资的实证研究<sup>1</sup>

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## 摘要

本文利用 2007 至 2011 年我国 A 股上市公司数据，采用 Khan and Watts (2007) 会计稳健性指数 (*C\_SCORE*) 和 Givoly and Hayn (2000) 累计应计项分别测度会计稳健性，采用相关分析、配对检验和多元回归分析，研究结果表明：(1) 股权融资主导型公司样本组、银行贷款融资主导型公司样本组和公开债融资主导型公司样本组都存在会计稳健性；(2) 会计稳健性在不同类型的公司中存在显著差距，三种融资类型会计稳健性的大小顺序为：银行贷款融资主导型 > 股权融资主导型 > 公开债融资主导型。

关键词：会计稳健性、企业筹资、债务契约

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## 一、引言

筹资是指企业为了满足其经营活动、投资活动、资本结构调整等需要,通过一定渠道、采取适当方式筹措资金的财务活动,是财务管理的首要环节,是企业生存、发展和获利的前提和保障。按照企业所取得资金的权益特征不同,筹资可分为股权筹资、债务筹资和衍生工具筹资三种。股权筹资通过吸收直接投资、发行股票、内部积累等方式取得,该筹资方式财务风险较小,资本成本相对较高。债务筹资通过借款、发行债券、融资租赁以及赊购商品或服务等方式取得,具有较大的财务风险,资本成本相对较低。衍生工具筹资包括兼有股权与债务特征的混合筹资和其他衍生工具筹资,如可转换债券和认股权证。企业的筹资决策主要解决这样几个问题:利用权益资本还是债务资本?通过什么渠道筹措哪种权益资本或债务资本?以及权益资本与债务资本之间的比例多少?利用长期资金还是短期资金?它们之间的比例又是多少?总的来看,影响企业筹资的因素包括外部环境因素和内部环境因素。外部因素包括经济环境、法律环境和金融环境等,内部环境因素包括企业的组织形式、规模业绩、资产结构、资本结构等。资本市场是企业融资的主要场所,而高质量的会计信息是维护证券市场有效运转的前提。会计信息是对公司交易的回顾,揭示了交易的发生与否、发生的时间、金额、所涉及的权利义务。公司通过会计信息传递公司资产状况、经营成果和现金流量等信息,出资者借助公司披露的会计信息进行投资决策,出资人投资过程也就是企业筹资过程,由此,会计信息成为影响企业筹资活动的重要因素。公司治理是降低公司内部代理成本,保证公司实现长远发展前景、获取长期业绩的一套机制。其中一个主要方面是现代企业理论所强调的债务在公司治理中起到的重要作用。债务作为一种公司治理机制,债务融资契约和破产威胁能有效地缓解管理层代理问题,更好地约束和监督经理(Harris and Raviv, 1991)。会计稳健性与债务融资的经验研究主要包括两个方面:一是会计稳健性与负债融资规模;二是会计稳健性与融资成本。孙铮、刘凤委和汪辉(2005)利用1999至2002年A股上市公司的数据分析了债务作为一种公司治理机制对会计稳健性的影响,发现债务比重比较高的公司相对债务比重比较低的公司,其会计政策选择更加稳健,而且,当企业陷入财务困境时,债权人会要求企业采取更加稳健的会计政策。成熟资本市场的经验研究也表明相对银行债务,公开债务作为一种重要的筹资来源,其经济特征使财务报告呈现出更及时的损失确认(Ball *et al.*, 2000; Ball *et al.*, 2008)。进一步的研究表明:在公司层面,稳健性降低了债务成本(Ahmed *et al.*, 2002; Zhang, 2008; 毛新述和戴德明, 2009),减轻了公司的信息不对称(LaFond and Watts, 2008),以及实现控制权的更早转移(Zhang, 2008)。还有文献研究了债务契约对会计稳健性的影响,Nikolaev(2010)分析了债务契约中限制条款对企业会计稳健性的影响,发现限制条款越多,企业的会计稳健性水平就越高。在股权融资与会计稳健性方面,主要研究了会计稳健性对权益成本的影响。Lara *et al.*(2009)发

现高的会计稳健性水平可以降低企业的权益成本,显示出股权投资者对会计稳健性政策的偏好。Ahmed *et al.* (2002) 发现,会计稳健性水平会随着债权人与股东潜在冲突可能性的增加而提高。Li (2010) 运用国别研究的方法,对会计稳健性与资本成本(包括债务和权益成本)的关系进行了研究,发现会计稳健性对降低资本成本具有正面作用。

本文研究了银行贷款融资、股权融资和公开债融资三种融资方式对会计稳健性的影响,比较了使用不同融资方式公司的会计稳健性水平,利用 2007 至 2011 年我国 A 股上市公司数据,采用相关分析、配对检验和多元回归分析等方法进行研究,研究结论表明,股权融资主导型公司样本组、银行贷款融资主导型公司样本组和公开债融资主导型公司样本组都存在会计稳健性,会计稳健性在不同类型的公司中存在显著差距,三种融资类型中,银行贷款融资主导型公司会计稳健性最高,其次为股权融资主导型公司,会计稳健性最弱的为公开债融资主导型公司。

本文的主要贡献在于比较了债务契约与股权契约对会计稳健性的影响和需求差别。并进一步将债务融资分为银行贷款融资和公开债融资,研究不同的契约机制对会计稳健性的影响。本文从会计稳健性的角度来研究会计信息与企业筹资的关系,深化了会计信息经济后果论的相关研究,丰富了我们对企业筹资的认识。

本文的顺序安排如下:第二部分提出本文的制度背景与研究假说,第三部分是研究设计,第四部分是实证结果与分析,第五部分提出研究结论。

## 二、制度背景与研究假说

现代企业理论将企业看作是各种契约的结合体,企业各参与者使用会计信息主要有两方面的作用:一是通过会计信息作为设计参与契约的依据;二是通过会计信息来检验约束契约的执行状况。Watts (2003a) 认为会计稳健性产生的原因主要包括:公司契约、法律诉讼、监管以及税收。在公司契约当中最为重要的就是股东和管理层之间以及股东(管理层)和债权人之间的契约。

### (一) 会计稳健性与股权融资

在股东与管理层之间的契约当中,稳健性可以作为缓解管理者过于乐观的机会主义的一种工具。因为由于经理补偿契约的存在以及经理盲目扩大自己的经营帝国的倾向,都会导致经理隐瞒亏损项目而只报告盈利项目的行为,而稳健性的存在就可以缓解这一冲突,帮助投资者及早发现亏损项目,从而提高企业价值。Kwon *et al.* (2001) 将会计稳健性模型化为一种有效的监督机制,当会计信息作为薪酬契约的依据以及股东对经理人的处罚有限时(经理人的有限责任),委托人总是希望会计信息系统是稳健的,它可以增强契约效率。Lara *et al.* (2009) 研究发现会计稳健性

显示出了与事前资本成本之间显著的负相关关系。因此,在其他条件一定的情况下(例如:保持必要的资本结构、融资环境等等),股权融资的企业不管是为了获得更低的融资成本还是由于其对管理层监管能力的强化都会导致其对会计稳健性的需求。Ball *et al.* (2008)以IPO公司为样本,研究了监管环境对会计稳健性的影响。研究认为IPO公司在IPO之前为了达到公众投资者对高质量财务报告的要求和上市公司管理的要求开始提高报告质量,公众投资者由于比私人投资者面临更大的信息不对称,因此他们需要更高质量的财务报告,这种需求还来自于各市场利益相关方包括审计师、委员会、分析师、信用评级机构、媒体和其他团体。上市公司如果达不到报告要求将面临更大的股东诉讼和监管法律的威胁。研究发现,面临更严厉监管的上市公司会计信息更稳健。因此,得出本文的假设之一:

H1: 在其他条件一定的情况下,股权融资主导型的公司存在会计稳健性。

## (二) 会计稳健性与债权融资

关于债权融资与会计稳健性的文献主要是基于代理理论,认为债权人和债务人的利益冲突会影响企业会计信息的稳健程度(Holthausen and Watts, 2001; Watts, 2003a; 等等)。在债务契约中,债权人和债务人面临着非对称收益和损失,债权人在企业经营状况好时也最多只能获得本金和利息,而一旦企业经营恶化,则面临血本无归的风险。债务人则不同,如果债务人利用债权人的资金投资高风险项目,获得的是“超额收益”除了支付固定的成本外全部归属于自己,而一旦投资失败,损失的是债权人的资金。因此,大多数债务契约都备有借款人在契约期间必须遵守的保护性条款(Watts and Zimmerman, 1986)。例如,保持一定标准的权益负债率、利息保障倍数、营运资本及所有者权益,对兼并活动的限制,对向其他企业投资的限制,对资产处置的限制,对增加债务的限制等等,如果公司违反了这些条款,债权人就会对其进行惩罚。债务在公司治理中的重要作用体现在对经理的约束和监督,而债权人的这种监督往往不是通过直接监督、观察经理人的行为来实现的,而是通过企业是否违反契约中重要的会计指标实现间接监督。债权人关心的通常是企业的盈利能力和还本能力,因此企业利润与净资产是债权人重点关注的指标。而企业选择何种会计政策、会计稳健程度将直接影响上述会计指标。稳健性原则要求不高估资产和收益、不低估负债和费用,及时地确认损失,不允许进行盈余平滑和“洗大澡”,更不允许采用激进的会计政策来增加盈余,因此,会计稳健性的这种非对称的确认计量方法与债权人非对称的收益与风险相匹配,更能够保护债权人的权益。经验研究也得出了相同的结论。Ball *et al.* (2008)指出稳健性财务报告的需求主要来自债权市场而非权益市场,债权市场需要较高的及时性及稳健性,因为债务契约主要利用财务报表的数字设定各种条件。相较于债权市场,权益市场的信息并非只局限于财务报表的数字,权益市场的投资人可以利用市场上的各种信息例如媒体杂

志报导、财务分析师的预测及所见所闻的信息等等，研究各国的数据发现稳健性会计信息需求愈大者，其债权市场愈发达，暗示债权人持有者是稳健会计信息的主要需求者。就银行借款而言，银行作为债权人与债务人面临着非对称收益和损失，同时，由于银行不像大股东一样通过直接监督、观察经理人的行为来维护自身权益，尤其在中国股权较集中，大股东控制的背景下，大股东能控制管理层，直接监督管理层，大股东通过控制管理层来解决信息不对称的问题，而并不是通过国外的公开信息披露解决股东与管理层之间的信息不对称，因此从需求的角度看，银行借款融资主导型的公司对会计稳健性的需求比股权融资主导型的公司更高。

进一步分析，按照债务类型，债权人通常可以分为发行公开债券的持有人和银行等专门的金融机构。两者在债务契约中的谈判能力和监督能力以及获得信息的方式存在着很大的差异，因而其对会计信息稳健程度的需求也不尽相同。一般说来，公开债券持有人的监督能力和谈判能力较弱，并且由于“免费搭车”等问题的存在，公开债券持有人主动搜寻信息的激励也相对不足，他们获取债务人财务状况和经营状况等信息的渠道主要来自于债务人公开披露会计信息，因此在其他治理机制既定的条件下，其对稳健会计政策的需求也越强烈，以此来限制债务人机会主义行为。而相对于银行等金融机构而言，其对稳健会计的需求则要小于公开债券的持有人，因为银行可以通过私人信息获得债务人的会计信息（例如：向债务人派遣董事、要求债务人定期报告相关事项、制定专人负责收集债务人的信息等等），从而阻止债务人可能的机会主义行为。由此得出本文另外两个假设：

**H2a: 在其他条件一定的情况下，债务融资主导型的公司存在会计稳健性，且会计信息比股权融资主导型公司更稳健。**

**H2b: 在其他条件一定的情况下，公开债券融资主导型公司会计稳健性高于银行贷款融资主导型公司。**

### 三、 研究设计

#### （一）样本选择与数据来源

根据本文研究的需要，利用万得资讯公开债券数据库中的数据，我们将 2007 年至 2011 年间发行公开债并且没有使用其他融资方式的上市公司定义为公开债融资主导型上市公司。<sup>5</sup> 2007 年至 2011 年间共 175 个公开债发行数据，将同一年发

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<sup>5</sup> 发行公开债券的上市公司中未包括发行企业债和可转换债权的上市公司，主要是指发行公司债的公司。《公司法》对公司债券的定义是：“指公司依照法定程序发行、约定在一定期限内还本付息的有价证券”。公司债券是公司外部融资的一种重要手段，是企业融资的重要来源，同时也是金融市场的重要金融工具之一。由于企业债是由中央政府部门所属机构、国有独资企业或国有控股企业发行的债券，它对发债主体的限制比公司债券窄，为了控制这种制度性因素的影响，我们只将样本期间发行公司债的公司定义为公开债融资主导型公司。另外，本文在稳健性检验中加入发行企业债的公司，结论基本一致。

行多次的数据进行合并,共有 152 个公开债发行数据,最后剔除存在银行贷款或股权融资的公司,剔除金融行业上市公司,得到 77 家样本公司。利用国泰安研究服务中心中国上市公司银行贷款研究数据库中 2007 年至 2011 年向银行贷款的公司并且没有使用其他融资方式的上市公司,定义为银行贷款融资主导型上市公司,剔除金融行业上市公司,2007 年至 2011 年共有 11135 个银行贷款数据,将在此期间多次向银行贷款的公司进行合并共有 2730 个银行贷款数据,剔除同时发行公开债或股权融资的公司,得到 2350 家样本公司。利用国泰安研究服务中心中国上市公司增发配股研究数据库中 2007 年至 2011 年通过增发或者配股融资并且没有使用其他融资方式的上市公司,定义为股权融资主导型的上市公司。2007 年至 2011 年间共 832 个增发配股数据,将在此期间多次配股或增发的公司进行合并,剔除金融行业上市公司,共有 783 个增发配股数据,剔除同时发行公开债或银行贷款的上市公司,得到 484 家样本公司。样本分布如表 1 和 2 所示。在全样本中,银行贷款融资主导型上市公司达到 2350 家,占全部样本的 80.73%,说明银行贷款融资仍然是我国上市公司再融资的主要形式。同时,公开债融资主导型上市公司为 77 家,占全部样本的 2.64%。

从样本公司最终控制人的性质来看,公开债融资主导型样本组中国有控股公司有 49 家,占到了公开债融资主导型样本组的 63.64%。而银行贷款主导型样本公司中,国有控股的公司比例只有 47.45%,是国有控股公司比例最低的组,说明我国上市公司中,非国有企业更加偏好银行贷款融资。

表 1 分最终控制人样本分布

	公开债主导型			银行贷款主导型			股权融资主导型			全样本 比例 合计 (%)
	公司数	比例 (%)	占全样本比例 (%)	公司数	比例 (%)	占全样本比例 (%)	公司数	比例 (%)	占全样本比例 (%)	
国有控股	49	63.64	1.68	1115	47.45	38.30	252	52.07	8.66	1416 48.64
非国有控股	28	36.36	0.96	1235	52.55	42.43	232	47.93	7.97	1495 51.36
合计	77	100	2.65	2350	100	80.73	484	100	16.63	2911 100

从分行业来看(表 2),全样本中制造业公司达到了 1710 家,占全样本的 58.74%。房地产业、批发和零售贸易和信息技术业也成为再融资的主要行业,分别占到全样本的 7.21%、6.42%和 4.67%。从各组来看,公开债融资主导型样本组中制造业为

41家,占53.25%。银行贷款融资主导型样本组中,制造业为1385家,达到了58.94%,而传播与文化产业则只有16公司,占0.68%。股权融资主导型样本组中,制造业、房地产业、信息技术业成为股权融资的主要行业。

表2 分行业样本分布

	公开债主导型		银行贷款主导型		股权融资主导型		全样本	
	公司数	比率 (%)	公司数	比率 (%)	公司数	比率 (%)	合计	比率 (%)
农、林、牧、渔业	0	0.00	52	2.21	9	1.86	61	2.10
采掘业	4	5.19	50	2.13	20	4.13	74	2.54
制造业	41	53.25	1385	58.94	284	58.68	1710	58.74
电力、煤气及水的生产和供应业	6	7.79	104	4.43	23	4.75	133	4.57
建筑业	3	3.90	57	2.43	13	2.69	73	2.51
交通运输、仓储业	9	11.69	62	2.64	24	4.96	95	3.26
信息技术业	4	5.19	110	4.68	26	5.37	136	4.67
批发和零售贸易	0	0.00	159	6.77	24	4.96	187	6.42
房地产业	0	0.00	170	7.23	32	6.61	210	7.21
社会服务业	0	0.00	75	3.19	14	2.89	89	3.06
传播与文化产业	8	10.39	16	0.68	4	0.83	20	0.69
综合类	2	2.60	110	4.68	11	2.27	123	4.23
合计	77	100	2350	100	484	100	2911	100

公开债数据取自万得咨询数据库 (Wind), 其他数据均取自国泰安数据库 (CSMAR)。使用的统计软件为 SAS9.0。

## (二) 会计稳健性的计算

会计稳健性我们采用两个指标进行衡量。一是 Khan and Watts (2007) 模型构建的会计稳健性指数 ( $C\_SCORE$ ); 二是 Givoly and Hayn (2000) 通过累计应计项测量稳健性。

### 1. Khan and Watts (2007) 会计稳健性指数

会计稳健性指数, 我们采用 Khan and Watts (2007) 的模型计算。Khan and Watts (2007) 认为由于企业具有不同的特性, 契约、诉讼、税收和监管对企业投资机会集 (Investment Opportunity Set) 的影响程度不一样, 所以企业会计稳健性也存在差异。在 Basu 模型的基础上, Khan and Watts (2007) 从一系列企业特性中选择公司规模 ( $SIZE$ )、权益市值与账面价值比率 ( $MTB$ ) 和负债率 ( $LEV$ ) 作为估计稳健性

指数的工具变量,设计度量公司/年稳健性程度的指标—稳健性指数( $C\_SCORE$ )。稳健性计算方法如下:

首先,根据 Basu 模型:

$$\frac{X_{i,t}}{P_{i,t-1}} = \alpha_{0,t} + \beta_{1,t}DR_{i,t} + \beta_{2,i,t}R_{i,t} + \beta_{3,i,t}R_{i,t} * DR_{i,t} + \xi_{i,t} \quad (1)$$

其中  $X_{it}$  表示  $i$  公司  $t$  年度的每股收益(使用每股基本收益);  $P_{it-1}$  表示  $i$  公司  $t-1$  年股票收盘价;  $R_{it}$  表示  $i$  公司  $t$  年考虑现金红利再投资的个股年超额报酬率,  $DR_{it}$  为虚拟变量,当  $R_{it} \leq 0$  时,取值为 1, 否则为 0; 在模型 1 中,  $\beta_2$  表示会计盈余对“好消息”确认的及时性,  $\beta_2 + \beta_3$  表示会计盈余对“坏消息”确认的及时性,  $\beta_3$  表示会计盈余对“坏消息”比“好消息”确认及时性的增量, 所以用  $\beta_3$  是否显著大于 0, 来判断上市公司会计盈余是否稳健。

为了估计公司层面“好消息”和“坏消息”确认的及时性, Khan and Watts (2007) 将公司/年好消息确认的及时性 ( $G\_SCORE$ ) 和坏消息确认的及时性增量 ( $C\_SCORE$ ) 用公司规模、市值与账面价值比率和负债率三个反映公司特性的工具变量的线性函数表示如下:

$$G\_SCORE = \beta_{2,i,t} = \mu_{1,t} + \mu_{2,t}SIZE_{i,t} + \mu_{3,t}M/B_{i,t} + \mu_{4,t}LEV_{i,t} \quad (2)$$

$$C\_SCORE = \beta_{3,i,t} = \lambda_{1,t} + \lambda_{2,t}SIZE_{i,t} + \lambda_{3,t}M/B_{i,t} + \lambda_{4,t}LEV_{i,t} \quad (3)$$

将 (2) 和 (3) 代入模型 (1) 如下:

$$\begin{aligned} \frac{X_{i,t}}{P_{i,t-1}} = & \alpha_{0,t} + \beta_{1,t}DR_{i,t} + (\mu_{1,t} + \mu_{2,t}SIZE_{i,t} + \mu_{3,t}M/B_{i,t} + \mu_{4,t}LEV_{i,t})R_{i,t} \\ & + (\lambda_{1,t} + \lambda_{2,t}SIZE_{i,t} + \lambda_{3,t}M/B_{i,t} + \lambda_{4,t}LEV_{i,t})R_{i,t} * DR_{i,t} + \xi_{i,t} \end{aligned} \quad (4)$$

运用模型 (4), 采用年度横截面数据进行回归, 估计出每年的  $\lambda_{1,t}$ 、 $\lambda_{2,t}$ 、 $\lambda_{3,t}$ 、 $\lambda_{4,t}$  系数, 再将其各年系数分别代入到 (3) 式中, 计算出公司/年稳健性指数( $C\_SCORE$ )。

## 2. Givoly and Hayn (2000) 累计应计项

会计稳健性的计量模型在西方最常用的是 Basu (1997) 模型, 该模型采用反回归方程 (Reverse Regression) 构建盈余/股票报酬关系模型以度量稳健性。虽然在已有的会计稳健性研究文献中 Basu 模型得到了广泛应用, 但 Basu 模型在设定和内生性方面也饱受争议 (Beaver *et al.*, 1997; Dietrich *et al.*, 2007), 特别是我国资本市场效率较低, 直接采用 Basu 模型可能会有偏差。因此, 我们本文同时采用更加稳妥的累计应计模型来测度会计稳健性。累计应计模型由 Givoly and Hayn (2000) 提出, 他们认为稳健性减少了各期累计报告盈余。他们建议用各期累计应计利润的



符号和大小作为稳健性的测度。因为在无偏会计下，折旧和摊销之前的净收益的累积额从长期来看应与经营活动的现金流量趋于一致，这是因为应计项目倾向于反转，使得最终的累计应计项目归于零，但如果公司刻意采取稳健性会计政策时，则会导致持续负的应计余额。因此，可以用累计应计项的符号和大小作为稳健性的测度，累计应计项为负，说明会计信息具有稳健性；负值越大，说明会计稳健性程度越高。Ahmed and Duellman (2007)、Qiang (2007)、朱松和夏冬林 (2010) 等也使用该方法作为会计稳健性的测度。我们将 3 年累计应计项作为稳健性的表征变量。应计项计算如下：

$$ACC_{i,t} = \frac{EBDA_{i,t} - CFOA_{i,t}}{SIZE_{i,t-1}} \quad (5)$$

其中： $ACC_{i,t}$  表示  $i$  公司  $t$  期应计项； $EBDA_{i,t}$  表示  $i$  公司  $t$  期折旧摊销前利润，即  $EBDA = \text{非常项目前利润} + \text{折旧和摊销费用}$ ； $CFOA_{i,t}$  表示  $i$  公司  $t$  期经营活动现金流量； $SIZE_{i,t-1}$  表示  $i$  公司  $t$  期初总资产；

累计应计项计算如下：

$$CACC_{i,t} = \sum_{n=0}^2 ACC_{i,t-n} \quad (6)$$

其中， $CACC_{i,t}$  表示  $i$  公司  $t$  期累计应计项；如：2003 年的累计应计项 = 2001 年应计项 + 2002 年应计项 + 2003 年应计项；其他年份依次类推。 $CACC$  包括流动资产和流动负债的变动、递延所得税、资产处置利得和损失、坏账准备以及其他应计或递延费用和收入，控股股东可以通过调节和控制这些项目的确认范围和时间以及计量金额来体现稳健性的会计信息特征。为了解释上的方便，本文将  $CACC_{i,t}$  乘以 -1，用  $CONSERV$  表示稳健程度， $CONSERV$  数值大于 0，说明会计信息存在稳健性， $CONSERV$  数值越大，则表明稳健程度越高。本文对稳健性指标 1%分位数以下和 99%分位数以上的极端值进行了 Winsorize 处理，以剔除异常值的影响。

### (三) 盈余管理测度

应计利润分离法是国内外最常用的盈余管理计量方法，即用回归模型将利润分离为非操纵性应计利润和操纵性应计利润，并用操纵性应计利润来衡量盈余管理的大小和程度。我们采用业绩匹配的 Jones 模型来计量应计利润(Kothari *et al.*, 2005)。模型如下：

$$TA_{it} / A_{it-1} = \alpha_0 + \alpha_1 / A_{it-1} + \alpha_{2i} (\Delta REV_{it} - \Delta REC_{it}) / A_{it-1} + \alpha_{3i} PPE_{it} / A_{it-1} + \alpha_{4i} ROA_{it} + \xi_{it} \quad (7)$$

$TA_{it}$  表示净利润与经营现金净流量差额；截距项是为了控制遗漏变量的影响；

$A_{it-1}$  为期初总资产； $\Delta REV_{it}$  为主营业务收入净额的变化额； $PPE_{it}$  为固定资产净值；在具体计算过程中，我们将样本数据分行业分年度代入 7 式进行回归，回归的残差作为操纵性应计。 $DA_{it}$  为操纵性应计，用来衡量盈余管理的程度， $DA_{it}$  大于 0，表示向上操纵盈余， $DA_{it}$  小于 0，表示向下操纵盈余。

#### （四）研究模型

Watts (2003a, 2003b) 认为影响会计稳健性的主要因素包括：契约、监管、诉讼和税收。结合我国的制度环境，李远鹏和李若山 (2005) 认为盈余管理也是我国上市公司会计稳健性的动因之一，朱茶芬和李志文 (2008) 实证考察了国家控股对会计稳健性的影响以及它的制度根源。因此，我们在充分考虑上述因素后构建如下回归模型来研究不同融资形式对会计稳健性的影响：

$$\begin{aligned} CONSERV_{i,t} = & \beta_0 + \beta_1 FINANCE_{i,t} + \beta_2 DA_{i,t} + \beta_3 REGULATION_{i,t} \\ & + \beta_4 TAX_{i,t} + \beta_5 SIZE_{i,t} + \beta_6 LEV_{i,t} + \beta_7 STATE_{i,t} \\ & + \beta_8 LITIGATION_{i,t} + \beta_9 ROA_{i,t} + \sum \beta_i YEAR \\ & + \sum \beta_i IND + \xi_{i,t} \end{aligned} \quad (8)$$

其中， $CONSERV$  表示会计稳健程度，分别用  $C\_SCORE$  和  $CACC$  表示。 $FINANCE$  表示融资方式，该变量为虚拟变量，取值根据具体研究设定（下文会具体说明）。 $DA$  表示盈余管理水平，李远鹏和李若山 (2005) 及邱月华和曲晓辉 (2009) 均研究指出中国上市公司的稳健性可能是由盈余管理（洗大澡）造成的“伪稳健型”， $DA$  用操纵性应计表示。 $REGULATION$  虚拟变量，表示监管，当行业受到管制时，高估资产和收益比低估资产和收益产生的成本更大，因而会更倾向于稳健的会计政策 (Watts, 2003a)。当公司所属行业为采掘、水电煤气和运输仓储业时， $REGULATION$  取 1，否则取 0。 $TAX$  表示所得税，Watts (2003a, 2003b) 认为，公司有动机递延本期收益来减少当期应缴纳的所得税，而 Qiang (2007) 则认为，账面利润和应税所得额之间的联系，可作为所得税成本的替代指标，他使用 10 年样本期所得税费用和所得税费用减去递延所得税的回归系数代替账面利润和应税所得额之间的联系，作为所得税成本。由于本文数据期间较短，因此本文使用所得税费用 / (所得税费用 + 递延所得税资产增加额 - 递延所得税负债增加额) 表示所得税成本对会计稳健性的影响。 $LITIGATION$  表示诉讼，高诉讼风险行业会影响会计稳健性的使用，国外研究认为高科技公司诉讼风险比较高 (Field *et al.*, 2005; Bushman, 2006; Ahmed and Duellman, 2007)。Beatty *et al.* (2008) 指出，医药、计算机、电子、零售这四个行业面临的诉讼风险比较高。因此，本文将公司所属的行业是这四个高风险行业之一，哑变量  $LITIGATION$  取 1，否则取 0。<sup>6</sup>  $SIZE$  表示企

<sup>6</sup> 国外研究也有将公司盈利预测没有达到实际水平的公司，为高诉讼风险的公司 (Khan and Watts, 2007)。但是由于部分公司业绩预告数据不可得，因此未使用这种方法。

表3 分行业分年度盈余管理系数

行业	年度	$\alpha_0$	$\alpha_{1,t}$	$\alpha_{2,t}$	$\alpha_{3,t}$	$\alpha_{4,t}$	行业	年度	Intercept	$\alpha_{1,t}$	$\alpha_{2,t}$	$\alpha_{3,t}$	$\alpha_{4,t}$
A	2007	0.03	-38.032	-0.061	-0.067	0.632	G	2007	-0.002	1.325	0.001	-0.085	0.82
A	2008	-0.038	39.813	-0.104	-0.037	1.075	G	2008	-0.014	3.124	-0.002	-0.123	0.574
A	2009	-0.074	9.673	0.004	0.076	0.262	G	2009	0.017	6.007	0.02	-0.17	0.291
A	2010	0.061	-28.576	-0.102	-0.073	0.548	G	2010	0.009	-3.846	-0.002	-0.089	0.747
A	2011	0.043	0.039	0.01	-0.19	0.776	G	2011	0.085	-6.627	0.086	-0.13	0.147
B	2007	-0.086	19.424	0.005	-0.068	0.717	H	2007	-0.002	1.387	-0.013	-0.202	0.886
B	2008	-0.029	29.654	-0.01	-0.109	0.212	H	2008	-0.049	0.627	-0.001	-0.031	0.723
B	2009	0.087	-20.129	0.089	-0.356	0.021	H	2009	-0.033	18.589	-0.021	-0.107	0.369
B	2010	-0.123	45.904	-0.007	0.087	0.651	H	2010	0.099	2.429	0.019	-0.353	-0.153
B	2011	0.018	23.669	-0.009	-0.083	0.041	H	2011	0.065	7.797	0.002	-0.351	0.366
C	2007	-0.048	20.625	-0.002	-0.006	0.78	J	2007	-0.131	6.811	-0.977	0.655	3.852
C	2008	-0.02	-3.124	-0.007	-0.079	0.725	J	2008	-0.001	28.928	-0.172	0.954	2.846
C	2009	-0.04	3.036	0.002	-0.033	0.575	J	2009	-0.104	0.434	0.959	-2.074	1.966
C	2010	-0.017	4.781	-0.002	-0.132	1.3	J	2010	0.062	-39.809	0.028	-0.261	1.398
C	2011	-0.021	377.144	0.26	-1.005	0.709	J	2011	0.091	4.004	0.499	-0.005	-0.309
D	2007	-0.009	-13.608	-0.033	-0.088	0.653	K	2007	-0.113	-6.234	0	0.017	1.03
D	2008	-0.096	51.672	0.398	-0.022	0.555	K	2008	0.017	-0.453	-0.043	-0.157	0.633
D	2009	-0.061	1.817	-0.193	-0.025	0.675	K	2009	-0.047	6.246	-0.084	-0.124	0.567
D	2010	-0.018	-28.279	-0.014	-0.054	0.857	K	2010	0.003	-4.119	0.071	-0.102	-0.008
D	2011	0.005	-20.216	-0.062	-0.081	0.624	K	2011	-0.114	33.673	0.008	0	1.405
E	2007	-0.007	66.657	0.118	-0.122	-1.37	L	2007	-0.013	-2.259	-0.189	-0.079	0.71
E	2008	-0.025	77.879	-0.034	0.099	-1.349	L	2008	-0.204	26.414	-0.013	0.306	0.559
E	2009	-0.102	-111.775	0.027	0.427	0.765	L	2009	-0.025	64.087	0.023	-0.245	1.265
E	2010	0.029	-84.665	-0.031	-0.02	0.824	L	2010	0.089	-78.1	-0.167	-0.225	0.472
E	2011	0.023	-2.899	0.002	0.064	0.332	L	2011	0.035	-9.401	-0.029	-0.104	1.295
F	2007	0.004	4.937	0.01	-0.067	0.222	M	2007	-0.003	-3.651	-0.072	-0.118	0.864
F	2008	-0.115	128.961	-0.001	-0.002	0.733	M	2008	0.002	36.367	0.533	-0.28	0.684
F	2009	-0.006	-2.897	-0.026	-0.068	0.381	M	2009	-0.049	2.962	-0.163	-0.005	0.867
F	2010	0.05	-37.188	0.038	-0.124	-0.069	M	2010	-0.01	0.852	-0.028	0.077	1.023
F	2011	-0.025	-27.404	-0.001	-0.029	0.274	M	2011	0.013	-0.369	0.031	-0.067	1.033

注：A表示农、林、牧、渔业；B表示采掘业；C表示制造业；D表示电力、煤气及水的生产和供应业；E表示建筑业；F表示交通运输、仓储业；G表示信息技术业；H表示批发和零售贸易；J表示房地产业；K表示社会服务业；L表示传播与文化产业；M表示综合类。

业规模，企业规模会影响到会计稳健性 (Watts *et al.*, 1978; Givoly *et al.*, 2007)。但由于在计算会计稳健性系数时，已经采用了资产的自然对数，本文借鉴 Chen *et al.* (2008) 的做法采用企业用本期营业收入的自然对数表示。*LEV* 表示公司的债务契约对会计稳健性影响，债务契约对稳健性会具有增强作用 (Watts, 2003a; Ahmed *et al.*, 2002)。债务契约一般用资产负债率来表征，但是由于在 *C\_SCORE* 的计算中已经使用了资产负债率，而且资产负债率中的总负债，除了长短期借款之外，还包括应付账款、预提费用、应交税金等其他项目，而这些项目对稳健性的作用并不大。因此本文借鉴 Chen *et al.* (2008) 的方法，用长期借款/总负债来表征债务契约。孙铮等 (2005) 也指出债务比例变量更能反映出债务对稳健性的影响。*STATE* 为虚拟变量，表示公司实际控制人的性质，国有控股上市公司与国有银行之间的同质性使得其间不存在根本的利益冲突，国有上市公司与银行之间形成了一种债务软约束关系 (平新乔, 1998)。朱茶芬和李志文 (2008)、朱凯和陈信元 (2006) 认为公司实际控制人的性质会影响会计稳健性。当最终控制人为国有控股时，*STATE* 取 1，否则取 0。*ROA* 表示总资产报酬率，朱松和夏冬林 (2009) 认为，*ROA* 会影响会计稳健性。*YEAR* 和 *IND* 分别表示年度和行业固定效应。

表 4 各变量定义表

变量名	取值
<i>CONSERV</i>	会计稳健性，分别用 <i>C_SCORE</i> 和 <i>CACC</i> 表示
<i>FINANCE</i>	虚拟变量，表示融资方式
<i>DA</i>	盈余管理水平，用操纵性应计表示
<i>REGULATION</i>	虚拟变量，行业为采掘、水电煤气和运输仓储业时，取 1，否则取 0
<i>TAX</i>	所得税费用 / (所得税费用 + 递延所得税资产增加额 - 递延所得税负债增加额)
<i>LITIGATION</i>	公司所属的行业为医药、计算机、电子、零售这四个行业时取 1，否则取 0
<i>SIZE</i>	上市公司营业收入的自然对数
<i>LEV</i>	长期借款 / 总负债
<i>STATE</i>	虚拟变量，当最终控制人为国有控股时，取 1，否则取 0
<i>ROA</i>	总资产报酬率
<i>YEAR</i>	年度固定效应
<i>IND</i>	行业固定效应，按照证监会行业分类标准，剔除金融行业，样本公司分成 12 行业，取 11 分行业虚拟变量

### （五）总体描述性统计

从会计稳健性总体描述性统计来看（表 5 中的  $C\_SCORE$  和  $CACC$  行），不管是  $C\_SCORE$  稳健性指数还是  $CACC$  稳健性指数，银行贷款融资主导型样本公司组会计稳健性的均值和中位数都要明显高于股权融资主导型样本公司组和公开债融资主导型样本公司组。同时，公开债融资主导型样本公司组的会计稳健性最差。

## 四、实证结果与分析

### （一）相关性分析

本文分三组检验了各拟回归模型主要变量的相关性。表 6 报告了银行贷款融资主导型样本组和股权融资主导型样本组相关性检验，当样本公司属于银行贷款融资主导型时， $FINANCE$  取 1，否则取 0。结果表明  $FINANCE$  与  $C\_SCORE$  的 Spearman 相关系数达到了 0.185，且在 1% 的水平下通过了显著性检验。 $FINANCE$  与  $CACC$  的 Spearman 相关系数为 0.067，且在 1% 的水平下通过了显著性检验，说明银行贷款融资主导型样本组的会计稳健性显著地高于股权融资主导型的样本公司。

表 7 报告了股权融资主导型样本组与公开债融资主导型样本组的相关性检验，当样本公司属于股权融资主导型时， $FINANCE$  取 1，否则取 0。结果表明  $FINANCE$  与  $C\_SCORE$  和  $CACC$  的 Spearman 相关系数都在 1% 和 10% 的水平下显著正相关，说明股权融资主导型样本组的会计稳健性显著地高于公开债融资主导型的样本公司。

表 8 报告了银行贷款融资主导型样本组和公开债融资主导型样本组的相关性检验，当样本公司属于银行贷款融资主导型时， $FINANCE$  取 1，否则取 0。结果显示  $FINANCE$  与  $C\_SCORE$  和  $CACC$  的 Spearman 在 5% 和 1% 的水平下显著正相关，说明银行贷款融资主导型上市公司的会计稳健性显著地高于公开债融资主导型的样本公司。

### （二）配对检验

为了更加精确地检验会计稳健性在各种融资方式选择方面的区别，我们分别对上述三个样本组进行配对检验。表 9 报告了银行贷款融资主导型样本公司与股权融资主导型样本公司会计稳健性的配对检验。检验结果表明无论是  $C\_SCORE$  会计稳健性指数还是  $CACC$  稳健性指数的均值和中位数在两组之间都存在显著的差别。不管是均值的差额还是中位数的差额都为正，而且都在 1% 的显著性水平下显著。以  $C\_SCORE$  计量的稳健性指标的均值差额比为 16.67% ( $0.03/0.19 = 15.79\%$ )，以  $CACC$  计量的稳健性指标的均值差额比更是高达 62.5% ( $0.05/0.08 = 62.5\%$ )，中位数的差额比也达到了 42.86% ( $0.03/0.07 = 42.86\%$ )。说明银行贷款融资主导型的上市公司的会计稳健性明显高于股权融资主导型的上市公司。

表 5 各组描述性统计

		公司年	最小值	四分之 一分位 数	均值	中位数	四分之 三分位 数	最大值
<i>C_SCORE</i>	公开债主导型	78	-0.12	-0.03	0.07	-0.01	0.21	1.54
	股权融资主导型	487	-0.12	-0.01	0.17	0.00	0.27	1.56
	银行贷款主导型	2366	-0.12	-0.01	0.19	0.01	0.33	1.66
	全样本	2931	-0.12	-0.01	0.18	0.01	0.30	1.66
<i>CACC</i>	公开债主导型	78	-0.91	-0.20	0.01	-0.03	0.12	0.43
	股权融资主导型	487	-0.65	-0.03	0.03	0.04	0.16	1.02
	银行贷款主导型	2366	-0.65	-0.13	0.06	0.07	0.18	1.04
	全样本	2931	-0.65	-0.05	0.04	0.06	0.17	1.01
<i>DA</i>	公开债主导型	78	-1.62	-1.43	0.34	0.53	0.59	1.62
	股权融资主导型	487	-1.35	-1.25	0.31	0.52	0.55	1.59
	银行贷款主导型	2366	-1.27	-1.22	0.25	0.48	0.51	1.58
	全样本	2931	-1.31	-1.23	0.28	0.50	0.52	1.59
<i>REGULATION</i>	公开债主导型	78	0.00	0.00	0.24	0.00	0.00	1.00
	股权融资主导型	487	0.00	0.00	0.13	0.00	0.00	1.00
	银行贷款主导型	2366	0.00	0.00	0.09	0.00	0.00	1.00
	全样本	2931	0.00	0.00	0.10	0.00	0.00	1.00
<i>TAX</i>	公开债主导型	78	-0.04	0.14	0.19	0.19	0.25	0.44
	股权融资主导型	487	-0.04	0.11	0.17	0.17	0.24	0.44
	银行贷款主导型	2366	-0.04	0.11	0.18	0.18	0.26	0.44
	全样本	2931	-0.04	0.11	0.18	0.17	0.26	0.44
<i>LITIGATION</i>	公开债主导型	78	0.00	0.00	0.14	0.00	0.00	1.00
	股权融资主导型	487	0.00	0.00	0.17	0.00	0.00	1.00
	银行贷款主导型	2366	0.00	0.00	0.20	0.00	0.00	1.00
	全样本	2931	0.00	0.00	0.19	0.00	0.00	1.00
<i>SIZE</i>	公开债主导型	78	20.06	21.71	22.54	22.53	23.68	23.90
	股权融资主导型	487	19.41	20.65	21.59	21.54	22.49	23.90
	银行贷款主导型	2366	19.41	20.50	21.31	21.24	22.00	23.90
	全样本	2931	19.41	20.54	21.39	21.30	22.11	23.90
<i>LEV</i>	公开债主导型	78	0.00	0.02	0.16	0.14	0.26	0.48
	股权融资主导型	487	0.00	0.00	0.13	0.07	0.23	0.48
	银行贷款主导型	2366	0.00	0.00	0.13	0.07	0.21	0.48
	全样本	2931	0.00	0.00	0.13	0.07	0.22	0.48
<i>STATE</i>	公开债主导型	78	0.00	0.00	0.64	1.00	1.00	1.00
	股权融资主导型	487	0.00	0.00	0.52	1.00	1.00	1.00
	银行贷款主导型	2366	0.00	0.00	0.48	0.00	1.00	1.00
	全样本	2931	0.00	0.00	0.49	0.00	1.00	1.00
<i>ROA</i>	公开债主导型	78	-0.03	0.02	0.05	0.04	0.08	0.13
	股权融资主导型	487	-0.04	0.03	0.06	0.05	0.08	0.13
	银行贷款主导型	2366	-0.04	0.01	0.04	0.04	0.07	0.13
	全样本	2931	-0.04	0.01	0.04	0.04	0.07	0.13

表 6 银行贷款融资主导型与股权融资主导型样本组相关性检验

	C_SCORE	CACC	FINANCE	DA	REGULATION	TAX	SIZE	LEV	STATE	LITIGATION	ROA
C_SCORE	1										
CACC	0.016 (0.482)	1									
FINANCE	0.185*** (<.0001)	0.067*** (<.0001)	1								
DA	-0.058*** (0.000)	-0.079*** (<.0001)	-0.028* (0.066)	1							
REGULATION	0.011** (0.011)	0.138*** (<.0001)	-0.104 (0.126)	-0.048* (0.086)	1						
TAX	-0.028 (0.263)	-0.045 (0.219)	0.020 (0.154)	-0.765 (0.254)	0.055* (0.053)	1					
SIZE	0.042*** (0.003)	0.019* (0.093)	0.153 (0.119)	0.608* (0.079)	0.093*** (0.017)	0.013** (0.036)	1				
LEV	0.059** (0.043)	0.043** (0.035)	-0.021 (0.465)	-0.048* (0.051)	0.341 (0.521)	0.421** (0.012)	0.153 (0.162)	1			
STATE	0.087** (0.017)	0.074** (0.047)	-0.049** (0.056)	-0.066 (0.437)	0.323 (0.159)	0.033 (0.533)	0.638 (0.329)	0.063* (0.063)	1		
LITIGATION	0.032 (0.774)	0.091 (0.258)	0.031** (0.021)	0.069 (0.533)	-0.713* (0.063)	-0.314 (0.252)	-0.053* (0.054)	-0.514 (0.138)	-0.343 (0.535)	1	
ROA	0.079* (0.052)	-0.103* (0.066)	-0.216* (0.086)	0.146* (0.067)	-0.523 (0.342)	-0.064 (0.595)	0.044** (0.041)	-0.064* (0.074)	-0.631 (0.154)	0.264* (0.055)	1

注：\*\*\*、\*\*、\*分别表示1%、5%、10%的显著性水平，括号内为P值，左下角为Spearman相关系数，括号内为p值。该检验样本组为银行贷款融资主导型和股权融资主导型样本组两组，当样本公司属于银行贷款融资主导型时，FINANCE取1，否则取0。

表7 股权融资主导型与公开债融资主导型样本组相关性检验

	C_SCORE	CACC	FINANCE	DA	REGULATION	TAX	SIZE	LEV	STATE	LITIGATION	ROA
C_SCORE	1										
CACC	0.037 (0.261)	1									
FINANCE	0.178*** (0.003)	0.074* (0.086)	1								
DA	-0.026** (0.054)	-0.243*** (<0.0001)	0.042 (0.316)	1							
REGULATION	0.024* (0.057)	0.170*** (<0.0001)	-0.121** (0.023)	0.034 (0.135)	1						
TAX	0.065 (0.163)	-0.028 (0.596)	-0.077 (0.201)	-0.064* (0.057)	0.053 (0.156)	1					
SIZE	-0.033* (0.051)	0.054** (0.028)	-0.181*** (<0.0001)	-0.243** (0.025)	0.163*** (0.002)	0.217 (0.235)	1				
LEV	-0.084** (0.037)	0.125** (0.021)	-0.082* (0.068)	-0.043 (0.174)	0.225*** (<0.0001)	0.132* (0.060)	0.115*** (0.000)	1			
STATE	0.054* (0.062)	0.087* (0.074)	-0.036 (0.217)	-0.176** (0.043)	0.169 (0.742)	0.147 (0.168)	0.165 (0.262)	0.162*** (0.001)	1		
LITIGATION	-0.048 (0.169)	0.014 (0.672)	0.038 (0.288)	-0.078 (0.833)	-0.112* (0.007)	-0.076 (0.746)	-0.048** (0.0385)	-0.219*** (0.007)	-0.053 (0.732)	1	
ROA	0.161*** (<0.0001)	0.026** (0.032)	0.016* (0.093)	0.135*** (0.009)	0.159 (0.547)	-0.046 (0.216)	0.028 (0.672)	-0.167 (0.383)	-0.277* (0.059)	0.016 (0.374)	1

注：\*\*\*、\*\*、\*分别表示1%、5%、10%的显著性水平，括号内为P值，左下角为Spearman相关系数，括号内为p值。该检验样本组为股权融资主导型和公开债融资主导型样本两组，当样本公司属于股权融资主导型时，FINANCE取1，否则取0。



表 8 银行贷款融资主导型与公开债融资主导型样本组相关性检验

	C_SCORE	CACC	FINANCE	DA	REGULATION	TAX	SIZE	LEV	STATE	LITIGATION	ROA
C_SCORE	1										
CACC	0.014 (0.557)	1									
FINANCE	0.033** (0.014)	0.026*** (<.0001)	1								
DA	-0.056*** (0.006)	-0.115*** (<.0001)	-0.014 (0.535)	1							
REGULATION	0.016*** (0.003)	0.258*** (<.0001)	-0.053** (0.024)	-0.064** (0.033)	1						
TAX	-0.055** (0.046)	-0.032 (0.178)	-0.016 (0.174)	-0.637 (0.368)	0.052** (0.0363)	1					
SIZE	-0.051* (0.077)	0.015* (0.063)	-0.042 (0.627)	-0.026* (0.056)	0.156* (0.082)	0.174 (0.236)	1				
LEV	0.054** (0.024)	0.129*** (0.002)	-0.114** (0.025)	-0.114* (0.064)	0.025* (0.094)	0.064 (0.388)	0.065 (0.321)	1			
STATE	0.068*** (<.0001)	0.087* (0.051)	-0.414* (0.093)	-0.279** (0.014)	0.058* (0.570)	0.083 (0.264)	0.524 (0.946)	0.085 (0.673)	1		
LITIGATION	0.021 (0.433)	0.217 (0.205)	0.015 (0.115)	0.045** (0.064)	-0.133* (0.085)	-0.026 (0.316)	-0.173* (0.055)	-0.277 (0.463)	-0.525 (0.275)	1	
ROA	0.029 (0.337)	-0.127*** (<.0001)	-0.018 (0.390)	0.054 (0.513)	-0.032 (0.478)	-0.054 (0.485)	0.111* (0.063)	-0.042* (0.052)	-0.037 (0.367)	0.063*** (0.006)	1

注：\*\*\*、\*\*、\*分别表示 1%、5%、10%的显著性水平，括号内为 P 值，左下角为 Spearman 相关系数，括号内为 p 值。该检验样本组为银行贷款融资主导型和公开债融资主导型样本两组，当样本公司属于银行贷款融资主导型时，FINANCE 取 1，否则取 0。

从盈余管理程度来看（表 9 中的 *DA*），基于均值的 T 检验显示，银行贷款融资主导型上市公司盈余管理程度在 5% 的显著性水平下小于股权融资主导型的上市公司组。中位数的双侧威尔科克森（Wilcoxon）秩和检验在 10% 的水平下显著。总体上，银行贷款融资主导型的上市公司和股权融资主导型的上市公司会计稳健性程度与盈余管理负相关，即：会计稳健性程度大样本组，其盈余管理的程度越小。

表 9 银行贷款融资主导型与股权融资主导型配对检验

		银行贷款融资主导型	股权融资主导型	差额	p 值
<i>C_SCORE</i>	均值	0.19	0.17	0.02***	<.0001
	中位数	0.01	0.00	0.01***	<.0001
<i>CACC</i>	均值	0.08	0.03	0.05***	<.0001
	中位数	0.07	0.04	0.03***	<.0001
<i>DA</i>	均值	0.25	0.31	-0.06**	0.0213
	中位数	0.48	0.52	-0.02*	0.0547

注：\*\*\*、\*\*、\*分别表示在 1%、5%和 10%的水平上显著；均值比较使用双侧 t 检验；中位数比较采用双侧威尔科克森（Wilcoxon）秩和检验。

表 10 报告了股权融资主导型样本公司与公开债融资主导型样本公司会计稳健性的配对检验。检验结果表明无论是 *C\_SCORE* 会计稳健性指数还是 *CACC* 稳健性指数的均值和中位数在两组之间都存在显著的差别。不管是均值的差额还是中位数的差额都为正，除了两组 *C\_SCORE* 稳健性指数的均值的差额在 5% 的显著性水平下显著，其他差额均在 1% 的显著性水平下显著。值得注意的是股权融资主导型上市公司 *C\_SCORE* 稳健性指标和 *CACC* 稳健性指标均值和中位数都显著大于 0，而公开债融资主导型上市公司除了 *C\_SCORE* 稳健性指标的均值大于 0，其他指标均小于 0，说明整体来看，公开债融资主导型上市公司的稳健性很低、甚至不稳健。综上所述，股权融资主导型的上市公司的会计稳健性要明显高于公开债融资主导型的上市公司。

从两组盈余管理程度来看（表 10 中的 *DA*），股权融资主导型上市公司组的盈余管理程度要明显的小于公开债融资主导型的上市公司组，且分别在 5% 和 10% 的显著水平下显著。从两组的整体情况来看，会计稳健性程度与盈余管理也显现出显著的负相关关系。

表 11 报告了银行贷款融资主导型样本公司与公开债融资主导型样本公司会计稳健性的配对检验。两组样本公司组都是负债融资方式，只不过一种是直接负债融资，一种是间接负债融资。检验结果表明无论是 *C\_SCORE* 会计稳健性指数还是 *CACC* 稳健性指数的均值和中位数在两组之间都存在显著的差别。不管是均值的差额还是中位数的差额都为正，而且都在 1% 的显著性水平下显著，说明银行贷款融资主导型的上市公司的会计稳健性明显高于公开债融资主导型的上市公司。

表 10 股权融资主导型与公开债融资主导型配对检验

		股权融资主导型	公开债融资主导型	差额	p 值
<i>C_SCORE</i>	均值	0.17	0.07	0.10***	<.0001
	中位数	0.00	-0.01	0.01***	<.0001
<i>CACC</i>	均值	0.03	0.01	0.02**	0.0265
	中位数	0.04	-0.03	0.07***	<.0001
<i>DA</i>	均值	0.31	0.55	-0.16**	0.0254
	中位数	0.52	0.54	-0.08*	0.0551

注：\*\*\*、\*\*、\*分别表示在 1%、5%和 10%的水平上显著；均值比较使用双侧 t 检验；中位数比较采用双侧威尔科克森（Wilcoxon）秩和检验。

从两组盈余管理程度来看，银行贷款融资主导型上市公司盈余管理程度要远小于公开债主导型上市公司，且两种检验下分别在 1%和 5%的显著性水平下显著。会计稳健性与盈余管理程度仍然高度负相关。

表 11 银行贷款融资主导型与公开债融资主导型配对检验

		银行贷款融资主导型	公开债融资主导型	差额	p 值
<i>C_SCORE</i>	均值	0.19	0.07	0.12***	<.0001
	中位数	0.01	-0.01	0.02***	<.0001
<i>CACC</i>	均值	0.08	0.01	0.07***	<.0001
	中位数	0.07	-0.03	0.10***	<.0001
<i>DA</i>	均值	0.25	0.34	-0.09***	<.0001
	中位数	0.48	0.53	-0.05**	0.0235

注：\*\*\*、\*\*、\*分别表示在 1%、5%和 10%的水平上显著；均值比较使用双侧 t 检验；中位数比较采用双侧威尔科克森（Wilcoxon）秩和检验。

### （三）回归分析

通过相关性分析和配对检验，我们发现银行贷款融资主导型、股权融资主导型和公开债融资主导型之间会计稳健性和盈余管理存在显著的差异，同时在组与组间，会计稳健性与盈余管理程度表现出高度的负相关关系。接下来我们通过模型 8 用回归的方法来检验会计稳健性在银行贷款融资主导型、股权融资主导型和公开债融资主导型样本组的区别。

表 12 报告了不同融资主导型样本分组回归的结果。银行贷款融资主导型样本组和股权融资主导型样本组回归分析，当样本公司属于银行贷款融资主导型时，*FINANCE* 取 1，否则取 0。以 *C\_SCORE* 作为会计稳健性的度量指标的回归结果表明 *FINANCE* 的系数为 0.022，符号为正，且在 1%的水平下显著，说明银行贷款融

资主导型样本组的会计稳健性显著地高于股权融资主导型的样本公司。该回归模型的调整后的  $R^2$  高达 0.597, 说明模型拟合程度很高。以  $CACC$  作为会计稳健性度量指标的回归结果与  $C\_SCORE$  回归模型相似,  $FINANCE$  的系数也为正的 0.015, 且在 10% 的显著性水平上显著。总体来看, 银行贷款融资主导型样本组的会计稳健性显著地高于股权融资主导型的样本公司。

股权融资主导型样本组与公开债融资主导型样本组的回归分析, 当样本公司属于股权融资主导型时,  $FINANCE$  取 1, 否则取 0。回归结果表明不管是  $C\_SCORE$  还是  $CACC$  度量的会计稳健性,  $FINANCE$  的系数都显著大于 0, 分别为 0.055 和 0.046, 模型的拟合优度和解释能力也都比较好。回归分析说明, 在控制了其他影响股权融资主导型和公开债融资主导型样本公司会计稳健性因素后, 两组的会计稳健性存在显著差异, 股权融资主导型样本组的会计稳健性要大于公开债融资主导型的样本公司。

银行贷款融资主导型样本组和公开债融资主导型样本组的回归分析, 当样本公司属于银行贷款融资主导型时,  $FINANCE$  取 1, 否则取 0。回归结果显示在  $C\_SCORE$  为因变量的回归模型中,  $FINANCE$  的系数为 0.038, 且在 1% 的水平上通过了显著性检验, 以  $CACC$  为因变量的回归模型中, 该系数为 0.065, 且在 10% 的水平上通过了显著性检验。总体上看, 银行贷款融资主导型上市公司的会计稳健性要高于公开债融资主导型的样本公司。

关于控制变量, 操纵性应计 ( $DA$ ) 与稳健性水平呈负相关, 操纵性应计越高, 稳健性越差。管制性行业 ( $REGULATION$ ) 稳健性水平较高。所得税 ( $TAX$ ) 与稳健性没有一致性的关系, 且不显著。公司规模 ( $SIZE$ ) 与稳健性没有一致性的关系, 在栏①和②中, 公司规模与以  $C\_SCORE$  表征的会计稳健性水平呈负相关且显著, 而与  $CACC$  表征的会计稳健性水平无显著相关关系, 在栏③中公司规模和会计稳健性水平呈正相关关系, 这与我们预期不一致, 事实上规模越大的公司, 受到更广泛的公众监督和更大的诉讼成本, 因而可能会采取更稳健的会计政策, 这可能是由于会计稳健性水平计量方式引起, 任何单一计量方式都不足以全面表征会计稳健性水平, 不同的稳健性水平计量结果甚至是相反的, 而  $C\_SCORE$  也会受到 Basu 模型的计量误差所致 (Givoly *et al.*, 2007)。负债水平 ( $LEV$ ) 与稳健性呈正相关, 且显著, 债务比重比例越高, 会计政策越是稳健, 符合诸多的国内外研究成果 (Ahmed *et al.*, 2002; 孙铮等, 2005)。国有企业 ( $STATE$ ) 的稳健性水平较高, 这与朱松和夏冬林 (2009) 一致, 但与孙铮等 (2005)、朱茶芬和李志文 (2008) 相反, 他们发现国有上市公司的会计稳健性更低。研究者们认为所有者缺位以及官员对政绩的追求可能直接导致国有公司会计稳健性下降, 官员反对公司追求高稳健性。本文认为虽然表面上国有企业存在所有者缺位的事实, 貌似处于“无人管”的境地, 但实际上, 国有企业领导人的约束和压力都要高于非国有企业。国有企业受到的政治压力更大, 领导人受到党纪国法的严格约束, 其管理层在业绩和过失面前, 宁可不出业绩, 也不能出现过失。国有企业领导人的遵循成本更高。因此, 遵守国家的各项法律以

表 12 不同融资主导型样本会计稳健性回归分析

$$CONSERV_{i,t} = \beta_0 + \beta_1 FINANCE_{i,t} + \beta_2 DA_{i,t} + \beta_3 REGULATION_{i,t} + \beta_4 TAX_{i,t} + \beta_5 SIZE_{i,t} + \beta_6 LEV_{i,t} + \beta_7 STATE_{i,t} + \beta_8 LITIGATION_{i,t} + \beta_9 ROA_{i,t} + \sum \beta_i YEAR + \sum \beta_i IND + \xi_{i,t}$$

	银行贷款与 股权融资组 <sup>①</sup>		股权融资与 公开债融资组 <sup>②</sup>		银行贷款与 公开债融资组 <sup>③</sup>	
	因变量		因变量		因变量	
	<i>C_SCORE</i>	<i>CACC</i>	<i>C_SCORE</i>	<i>CACC</i>	<i>C_SCORE</i>	<i>CACC</i>
<i>FINANCE</i>	0.022*** (3.72)	0.015* (1.96)	0.055** (2.23)	0.046*** (3.59)	0.038*** (2.92)	0.065* (1.81)
<i>DA</i>	-0.022*** (-2.99)	-0.295*** (-4.75)	-0.012** (-2.23)	-0.159* (-1.98)	-0.065** (-2.77)	-0.454*** (-4.65)
<i>REGULATION</i>	0.023*** (2.69)	0.122* (2.05)	0.044* (1.87)	0.343*** (2.73)	0.035** (2.53)	0.074** (2.26)
<i>TAX</i>	-0.013 (-0.67)	-0.021 (-0.77)	0.055 (1.65)	-0.185 (-1.53)	-0.047 (-1.55)	0.016 (0.92)
<i>SIZE</i>	-0.169*** (-3.25)	0.003 (0.56)	-0.085*** (-3.74)	-0.023 (-1.56)	0.065* (1.89)	0.006* (1.96)
<i>LEV</i>	0.033** (2.68)	0.139*** (2.77)	-0.044 (-1.49)	0.253** (2.44)	0.032* (1.78)	0.013** (2.43)
<i>STATE</i>	0.012* (1.90)	0.027** (2.42)	0.017*** (2.92)	0.053*** (2.67)	0.012** (2.64)	0.026* (1.85)
<i>LITIGATION</i>	0.006 (0.48)	0.033 (1.62)	-0.007 (-0.45)	-0.060 (-0.78)	0.005 (0.32)	0.053** (2.42)
<i>ROA</i>	0.157*** (3.80)	-0.245 (-1.63)	0.286* (1.94)	0.834** (2.42)	0.131** (2.74)	0.225** (2.61)
截距	-1.046*** (-106.65)	0.121* (1.89)	-2.667*** (-26.32)	0.432* (1.88)	2.842*** (21.56)	-0.744*** (-10.87)
年度	控制	控制	控制	控制	控制	控制
行业	控制	控制	控制	控制	控制	控制
Adj R-Sq	0.632	0.217	0.644	0.232	0.753	0.146
F 值	286.32***	57.49***	264.05***	36.55**	355.42***	27.42***

注：\*\*\*、\*\*、\*分别表示 1%、5%、10%的显著性水平，括号内为 t 值。①该回归样本组为银行贷款融资主导型和股权融资主导型样本两组，当样本公司属于银行贷款融资主导型时，*FINANCE* 取 1，否则取 0。②该回归样本组为股权融资主导型和公开债融资主导型样本两组，当样本公司属于股权融资主导型时，*FINANCE* 取 1，否则取 0。③该回归样本组为银行贷款融资主导型和公开债融资主导型样本两组，当样本公司属于银行贷款融资主导型时，*FINANCE* 取 1，否则取 0。

及监管机构制定的准则是必须的，国有企业在会计准则遵循上比非国有企业动机更强。诉讼水平（*LITIGATION*）与稳健性无显著相关关系，可能是由于我国的法律制度不够完善，执法力度薄弱，法律契约容易被违背，由诉讼所导致的惩罚容易被规避。因此法律契约并不能够影响会计稳健性。还没有形成如美国健全的法律诉讼制度。公司盈利水平（*ROA*）与稳健性呈正相关关系。

#### （四）研究结果分析

从总体上来看，三种融资类型的公司会计信息都呈现出来明显的稳健性。从分组检验的结果来看，配对检验、相关性分析和回归分析的结论趋于一致，即：银行融资主导型的公司会计稳健性高于股权融资主导型的上市公司，而公开债融资主导型公司会计稳健性低于股权融资主导型公司，三种融资类型会计稳健性的大小顺序为：银行融资主导型 > 股权融资主导型 > 公开债融资主导型。

第一，银行融资主导型的公司会计稳健性高于股权融资主导型，这与我们的假设一致。银行作为债权人与债务人面临着非对称收益和损失，同时，由于银行不像大股东一样通过直接监督、观察经理人的行为来维护自身权益。因此，银行融资主导型的公司对会计稳健性的需求比股权融资主导型的公司更高。该研究结论与 *Ahmed et al.*（2002）一致，他们认为债权人与股东利益冲突越大的公司，愈倾向采取更为稳健的会计政策，因为稳健的会计信息会造成较低资产与较高负债的现象，而这些结果均可以降低债权人的风险，对债权人形成更有利的保护。同时该结论也澄清了 *Schipper*（2005）以及 *Guay and Verrecchia*（2006）等人对于债权人对稳健会计的需求提出质疑，即他们认为债权人可以通过契约合约的修正来纠正会计信息的偏误。正如 *Beatty et al.*（2008）的看法，此方式（修改债务契约的方式）可行但并不普遍，债务契约的修改无法达到债权人要求债务人所应达到的稳健水准，债务契约的修改常发生于代理成本高且契约、政府管制、诉讼及税务等对稳健会计需求低时，所以债务契约的修改无法代替债权人对稳健会计的需求。本文的实证结果也证明稳健的会计信息在银行债务契约上的确发挥着有效的治理作用。

第二，实证结果表明公开债融资主导型的公司会计稳健性并不像我们认为的那样高于其他两类公司，而是低于股权融资主导型公司和银行融资主导型的公司，形成了我国资本市场上会计稳健性“公开债之谜”。造成“公开债之谜”与我国证券监管制度有关。根据《中华人民共和国证券法》规定公司公开发行新股应当符合的条件为：“（1）具备健全且运行良好的组织机构；（2）具有持续盈利能力，财务状况良好；（3）最近三年财务会计文件无虚假记载，无其他重大违法行为；（4）经国务院批准的国务院证券监督管理机构规定的其他条件”。而公开发行公司债券应当符合的条件则为：“（1）股份有限公司的净资产不低于人民币三千万元，有限责任公司的净资产不低于人民币六千万元；（2）累计债券余额不超过公司净资产的百分之四十；（3）最近三年平均可分配利润足以支付公司债券一年的利息；（4）筹集的资金投向符合国家产业政策；（5）债券的利率不超过国务院限定的利率水平；（6）”

国务院规定的其他条件”。无论从监管的范围和力度来看，公开发行公司债券再融资都要比股权再融资更加严格，发行公开债公司的资产状况、经营成果也要更好，财务风险也相应要低，因此，出资者对发行公开债公司的会计稳健性需求也就相对要小一些。另外从发行公开债的公司考虑，由于发行公开债的条件要求严格，对净资产和利润都做了相应规定，如果再实行稳健性的会计政策，可能会使得一些公司达不到发行条件，增加了稳健会计的成本。

还可能由于公开债券债权人尽管对稳健性会计有强烈需求，但是由于债权人多为不具有专业知识的分散的个体投资者，自身监督能力和谈判能力较弱，不参与公司的管理，在董事会中也没有派驻代表，并且由于股权分散、流动性较强、“免费搭车”等问题的存在，因此其迫使公司满足债权人需求的能力比较弱。

## 五、 研究结论

本文基于我国 A 股证券市场的数据，通过分析选择不同融资方式的公司会计稳健性水平，研究了会计稳健性对公司融资活动的影响。根据我国上市公司再融资的渠道，不同于西方学者的研究思路，本文将上市公司分成股权融资主导型公司样本组、银行贷款融资主导型公司样本组和公开债融资主导型公司样本组，以此来研究会计稳健性如何影响股权契约、银行债务契约和公开债契约，从而影响公司的筹资行为。这样划分的优点是：一方面可以详细区分股权契约、银行债务契约和公开债契约对会计稳健性需要的差异；二是避免了各契约与会计稳健性非线性关系造成的对研究结论的影响。本文研究结果表明，股权融资主导型公司样本组、银行贷款融资主导型公司样本组和公开债融资主导型公司样本组都存在会计稳健性，会计稳健性在不同类型的公司中存在显著差距，其中银行贷款融资主导型公司会计稳健性最高，其次为股权融资主导型公司，会计稳健性最弱的为公开债融资主导型公司。本文从多个角度分析了上述实证结果的原因，银行贷款融资主导型公司比股权融资主导型公司会计稳健性高，可能是由于银行与股东相比面临更大的信息不对称，不能直接监督、观察经理人的行为，因此会存在更强的会计稳健性需求。关于公开债融资主导型公司会计稳健性低的，我们认为可能有三方面原因，首先分析我国证券监管制度，从发行条件来看，无论公司净资产、利润还有资金投向，发行公开债的要求都比发行新股更严格，因此外部出资者对发行公开债公司的会计稳健性需求也就相对要小一些。其次从发行公开债的公司考虑，稳健性的会计政策，可能会使得一些公司达不到发行条件，增加了稳健会计的成本。最后我们认为还可能由于公开债债权人多为个体投资者，自身监督能力和谈判能力较弱，因此其迫使公司满足债权人需求的能力比较弱。

本文深化了会计稳健性产生的契约解释，扩展了以往研究主要集中于债务契约的特点，研究了不同的契约机制对会计稳健性的需求差别。从会计稳健性的角度来

研究会计信息与企业筹资的关系，丰富了会计稳健性经济后果论的相关研究。

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# Empirical Research on Accounting Conservatism and Business Financing<sup>1</sup>

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## Abstract

In this paper, using sample data of Chinese A-share listed companies between 2007 and 2011, we measure accounting conservatism by adopting the index *C\_SCORE* of Khan and Watts (2007) and current accruals (*CACC*) of Givoly and Hayn (2000) while conducting correlation analyses, paired tests, and multiple regression analyses. The results show that (1) accounting conservatism exists in equity financing oriented listed companies, bank loan oriented listed companies, and public bond oriented listed companies; and (2) there is a significant difference in accounting conservatism between the different groups of companies. The bank loan oriented group shows the highest level of accounting conservatism, followed by the equity financing oriented group and then the public bond oriented group.

**Keywords:** Accounting Conservatism, Business Financing, Debt Covenants

**CLC Codes:** F23, F239

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## I. Introduction

Financing is the most important part of financial management. Enterprises meet their funding needs for operating and investing activities and capital restructuring through certain appropriate financing channels. This is the premise and guarantee of corporate survival, development, and profitability. Financing can be categorised into three types, namely equity financing, debt financing, and derivatives financing, according to the characteristics of the equity funds raised by the firm. Equity financing is obtained through the absorption of direct investment, the issue of shares, and internal accumulation. This means of financing has a lower financial risk but a relatively high capital cost. Debt financing is obtained through loans, the issue of bonds, finance leases, and purchases of credit goods or services. This means of financing has a greater financial risk and a lower capital cost. Derivatives financing raises funds by mixed means, with both equity and debt financing characteristics and other derivatives, such as convertible bonds and warrants. Corporate financing decisions are mainly made to solve the following questions: Should equity capital or debt capital be utilised? Through which channels should equity capital or debt capital be raised? How should the ratio of equity capital to debt capital be adjusted? Should long-term or short-term funds be used? What should the proportion be between these two types of funds? Overall, the factors influencing corporate financing include both external and internal environmental factors. External factors include the economy, the legal system, and the financial environment. The internal factors include the corporate organisational structure, firm size and performance, asset structure, and capital structure. The capital market is the main place for business financing, and high-quality accounting information is the premise required for securities markets to operate effectively. Accounting information is a review of the company's transactions which reveals the occurrence or non-occurrence of, the timing and amounts of, and the rights and obligations involved in the transactions. A company provides information on asset status, operating results, and cash flow through accounting information, and investors make investment decisions based on the accounting information disclosed by the company. The investment process of investors is actually the financing process of an enterprise. Thus, accounting information is an important factor that affects financing activities. Corporate governance is a mechanism for reducing the internal agency cost in order to secure the prospect of long-term development and achieve long-term performance. As stressed by the modern enterprise theory, debt plays an important role in corporate governance. As a kind of corporate governance mechanism, debt financing contracts and the threat of bankruptcy can

effectively ease the agency problem in management to restrain and monitor managers better (Harris and Raviv, 1991). Empirical research into accounting conservatism and debt financing mainly includes two aspects: (1) accounting conservatism and the scale of debt financing and (2) accounting conservatism and the cost of financing. Sun, Liu, and Wang (2005) analyse the impact of debt as a corporate governance mechanism on accounting conservatism using A-share listed company data between 1999 and 2002 and find that a company with a relatively high proportion of debt adopts more conservative accounting policies than a company with a relatively low proportion of debt. Moreover, creditors will require enterprises to adopt more conservative accounting policies when they are in financial distress. Empirical studies of mature capital markets also show that as public debt is an important source of financing, its economic characteristics make financial reports show more timely loss recognition when compared with bank debt (Ball *et al.*, 2000; Ball *et al.*, 2008). Further research shows that conservatism reduces debt cost (Ahmed *et al.*, 2002; Zhang, 2008; Mao and Dai, 2009), mitigates a company's information asymmetry at the firm level (LaFond and Watts, 2008), and helps to transfer the control right earlier (Zhang, 2008). Studies on the impact of accounting conservatism on debt covenants are also found in the literature. Nikolaev (2010) analyses the impact of the restrictive provisions in debt contracts on accounting conservatism and finds that more restrictions lead to a higher level of accounting conservatism. As for equity financing and accounting conservatism, the main strand of research focuses on the influence of accounting conservatism on the cost of equity. Lara *et al.* (2009) find that a high level of accounting conservatism can reduce the cost of equity, showing that equity investors prefer conservative accounting policies. Ahmed *et al.* (2002) find that the level of accounting conservatism increases with an increase in the likelihood of potential conflict between creditors and shareholders. Li (2010) studies the relationship between accounting conservatism and capital cost (including the cost of debt and equity) by country and finds that accounting conservatism plays a positive role in reducing the cost of capital.

This paper investigates the impact of three financing methods—bank loans, equity financing, and public bonds—on accounting conservatism and compares levels of accounting conservatism at the firm level using the data of Chinese A-share listed companies that used different financing means between 2007 and 2011. We adopt correlation analysis, paired test, and multiple regression analysis as our research methods. The conclusions of the study show that accounting conservatism exists in the equity financing oriented group, the bank loan oriented group, and the public bond

oriented group and that there is a significant difference in accounting conservatism between these three types of firms. The bank loan oriented group shows the highest level of accounting conservatism, followed by the equity financing oriented group, and the public bond oriented group shows the lowest level.

The main contribution of this paper is to compare the different impacts and requirements of debt covenants and equity contracts on accounting conservatism. Then we divide debt financing into bank loan financing and public bond financing to investigate the impact of different contractual mechanisms on accounting conservatism. From the perspective of accounting conservatism, we examine the relationship between accounting information and corporate financing, thus extending the research on the theory of economic consequences of accounting information and enriching our understanding of corporate financing.

This remainder of this paper is organised as follows: part II presents the institutional background and hypotheses, part III introduces the research design, part IV provides the empirical results and analysis, and part V concludes the paper.

## **II. Institutional Background and Research Hypotheses**

The modern enterprise theory considers an enterprise to be a combination of a variety of contracts. Accounting information has two effects on the participants of an enterprise: First, accounting information is the basis for designing contracts that involve the enterprise; second, accounting information can be used to test the implementation of contracts. Watts (2003a) suggests that accounting conservatism is mainly adopted for contract, litigation, regulation, and taxation reasons. Among a firm's contracts, the most important ones are the one between shareholders and management and the one between shareholders (management) and creditors.

### **2.1 Accounting Conservatism and Equity Financing**

For a contract between shareholders and management, accounting conservatism can be used as a tool to restrain the opportunistic behaviour of managers who are too optimistic. The existence of manager compensation contracts and the blind tendency of managers to expand their business empire will lead managers to avoid reporting losses and only report profitable items. However, the existence of accounting conservatism can alleviate this conflict and help investors to detect losses early, thereby enhancing corporate value. Kwon *et al.* (2001) use accounting conservatism as an effective

supervision mechanism. When accounting information is a basis for compensation contracts and shareholders' punishment to managers is limited (managers' limited liability), the clients always hope that the accounting information system is conservative as this can enhance the efficiency of contracts. Lara *et al.* (2009) find a significant and negative correlation between accounting conservatism and the cost of capital. Therefore, in the case of all other things being equal (such as maintaining the necessary capital structure and financing environment), enterprises adopting the means of equity financing will demand conservative accounting policies in order to lower financing costs and strengthen management's monitoring powers. Ball *et al.* (2008) study the impact of the regulatory environment on accounting conservatism using a sample of companies launching initial public offerings (IPOs). Their research suggests that an IPO company begins to improve the quality of reporting prior to the IPO in order to meet the high-quality financial reporting requirements of public investors and the requirements placed on the management of companies going public. Public investors face greater information asymmetry than private investors, and so they need more high-quality financial reports. Market stakeholders, including auditors, committees, analysts, credit rating agencies, the media, and other groups, also have this demand. If listed companies cannot meet the reporting requirements, they will face even greater threats from shareholders, who may take legal action, and from the regulatory authorities. Ball *et al.* (2008) find that the accounting information of listed companies facing more stringent regulations is more conservative. Thus, we develop our first hypothesis of this paper:

**H1: *Ceteris paribus*, accounting conservatism exists in equity financing oriented companies.**

## **2.2 Accounting Conservatism and Debt Financing**

The literature on debt financing and accounting conservatism is based on the agency theory, which suggests that the conflict of interests between creditors and debtors will affect the level of conservatism in accounting information (Holthausen and Watts, 2001; Watts, 2003a). In debt covenants, creditors and debtors face asymmetric gains and losses. When business is good, the creditors can at best only get the principal and interest, and if the business operation deteriorates, the creditors' money may go down the drain. On the contrary, if debtors invest creditors' capital in high-risk projects, they will obtain all of the "excess return" after paying the fixed cost, and if the investment fails, the loss of capital will be borne by the creditors. Therefore, most debt covenants have a clause to protect the creditor which the debtor must obey (Watts and Zimmerman,

1986). For example, the clause may provide that the debtor needs to maintain a certain level of debt-to-equity ratio, interest coverage ratio, working capital, and owner's equity and set up restrictions on merger and acquisition (M&A) activities, investments in other enterprises, the disposal of assets, and increasing debts. If the company violates these terms, it will be punished by the creditor. The important role of debt in corporate governance is reflected in the restriction and supervision of the manager, but this supervision often takes the form of indirect monitoring of the manager's behaviour, where the creditor will check for any violation of the important accounting indicators stated in the contract. Creditors usually care about the company's profitability and ability to return principal, and so they are mainly concerned about the company's profits and net assets. The choice of accounting policy and the level of accounting conservatism will directly affect the said accounting indicators. The principle of conservatism requires there to be no overestimation of assets and income and no underestimation of liabilities and expenses and for loss to be recognised in a timely manner. Earnings smoothing, or taking a "big bath", and using aggressive accounting policies to increase earnings are not allowed. Therefore, the asymmetric recognition methods of accounting conservatism can protect the interests of creditors because these methods match with the asymmetric benefits and risks of creditors. Empirical research reaches the same conclusion. Ball *et al.* (2008) point out that the demand for financial reporting conservatism comes from the debt market rather than the equity market. Because debt covenants mainly use the figures of financial statements to set various conditions, the debt market demands greater timeliness and conservatism. Compared with the debt market, the information that the equity market requires is not confined to financial statement figures. Equity market investors can take advantage of a variety of information in the market, such as press media reports, financial analysts' forecasts, and other hearsay. Research on national data finds that the greater the need for conservative accounting information, the more developed the debt market. This implies that debt holders are the main demanders of conservative accounting information. With regard to bank loans, banks face asymmetric gains and losses compared with debtors. In addition, unlike shareholders, who can directly monitor management, banks cannot observe managers' behaviour to safeguard their own rights and interests. This is especially the case in China, where ownership is concentrated and each enterprise is controlled by the large shareholder. Major shareholders are able to directly supervise managers that they can solve the problem of information asymmetry between shareholders and management by controlling managers rather than by information disclosure. From the demand point of view, therefore, there is



a higher demand for accounting conservatism in bank loan oriented firms than there is in equity financing oriented firms.

According to the type of debt, creditors are usually divided into public bond holders and other specialised financial institutions like banks. There are significant differences between the two types of creditors in terms of the bargaining power of debt covenants, monitoring capacity, and access to information. Thus, their conservative accounting information needs are not the same. Generally, the monitoring and negotiation abilities of public bond holders are weak, and due to the existence of the “free-rider” problem, there is inadequate incentive for public bond holders to search for information actively. They obtain information on a debtor’s financial position and operating status mainly from the accounting information disclosed by the debtor. Therefore, under the condition where other governance mechanisms have been established, their demand for conservative accounting policy is more intense so as to restrict debtors’ opportunistic behaviour.

On the contrary, banks and other financial institutions’ demand for conservative accounting is less than that of public bond holders. Banks can get a debtor’s accounting information through private channels, such as delegating directors to the debtor, requiring the debtor to submit reports regularly, and assigning responsible persons to collect information about the debtor, thereby preventing the debtor from engaging in possible opportunistic behaviour. Therefore, we develop the following hypotheses:

**H2a: *Ceteris paribus*, accounting conservatism exists in debt financing oriented companies, and their accounting information is more conservative than that of equity financing oriented companies.**

**H2b: *Ceteris paribus*, the level of accounting conservatism in public bond oriented companies is higher than that in bank loan oriented companies.**

### **III. Research Design**

#### **3.1 Sample Selection and Data Sources**

To meet our research needs, we first define listed companies in the public bond database of Wind Information that issued public bonds between 2007 and 2011 and did not use other financing means as public bond oriented companies. This produces an initial sample of 175 items of public bond issuance data between 2007 and 2011. Then,

we merge the data of companies issuing public bonds more than once in the same year, and this produces 152 items of public bond issuance data. We then eliminate those companies that obtained bank loans or used equity financing and exclude listed companies from the financial sector. Finally, we obtain a sample of 77 companies.

Using the bank loan database of listed companies in China in the CSMAR database, we define listed companies that had bank loans between 2007 and 2011 and did not use other financing means as bank loan oriented companies. After excluding listed companies in the financial industry, we obtain a total of 11,135 items of bank loan data between 2007 and 2011, and after merging the data of companies that obtained bank loans more than once in the same year, we obtain 2,730 items of bank loan data. We exclude companies that also issued public bonds or used equity financing and obtain a sample of 2,350 companies.

Using the seasoned equity offering (SEO) database of listed companies in China in the CSMAR database, we define the companies that issued shares between 2007 and 2011 and did not use other financing means as equity financing oriented companies. This produces 832 items of SEO data. Then, we merge the data of companies that launched SEOs more than once in the same year and exclude listed companies in the financial industry, and we obtain 783 items of data. Finally, we eliminate companies that also issued public bonds or had bank loans and get a sample of 484 companies.

The sample distribution is shown in Tables 1 and 2. In the whole sample, there are 2,350 bank loan oriented companies, accounting for 80.73 per cent of the total sample, showing that bank loan financing is still the main form of refinancing among Chinese listed companies. Meanwhile, there are 77 public bond oriented companies, accounting for 2.64 per cent of the total sample.

As regards the nature of the ultimate controller of the sample firms, there are 49 state-owned companies in the public bond oriented group, accounting for 63.64 per cent of the sample. In the bank loan oriented group, state-owned companies only account for 47.45 per cent of the sample, which is the lowest proportion among all of the groups, showing that non-state-owned listed companies prefer to raise capital through bank loans in China.

Dividing the sample by industry (Table 2), we find that there are 1,710 manufacturing companies, accounting for 58.74 per cent of the whole sample. Real estate, wholesale and retail trade, and information technology are the major industries in which refinancing companies operate, accounting for 7.21 per cent, 6.42 per cent, and 4.67 per cent of the whole sample, respectively. In terms of types of financing, there are

**Table 1 Sample Distribution by Type of Ultimate Controller**

	Public bond oriented			Bank loan oriented			Equity financing oriented			Whole sample	
	No. of companies	Proportion (%)	Proportion in total sample (%)	No. of companies	Proportion (%)	Proportion in total sample (%)	No. of companies	Proportion (%)	Proportion in total sample (%)	Total	Proportion (%)
State-owned	49	63.64	1.68	1115	47.45	38.30	252	52.07	8.66	1416	48.64
Non-state-owned	28	36.36	0.96	1235	52.55	42.43	232	47.93	7.97	1495	51.36
Total	77	100	2.65	2350	100	80.73	484	100	16.63	2911	100

**Table 2 Sample Distribution by Industry**

	Public bond oriented		Bank loan oriented		Equity financing oriented		Whole sample	
	No. of companies	Proportion (%)	No. of companies	Proportion (%)	No. of companies	Proportion (%)	Total	Proportion (%)
Agriculture, forestry, animal husbandry, and fishery	0	0.00	52	2.21	9	1.86	61	2.10
Extractive industries	4	5.19	50	2.13	20	4.13	74	2.54
Manufacturing	41	53.25	1385	58.94	284	58.68	1710	58.74
Electricity, gas, and water production and supply	6	7.79	104	4.43	23	4.75	133	4.57
Construction	3	3.90	57	2.43	13	2.69	73	2.51
Transportation and storage	9	11.69	62	2.64	24	4.96	95	3.26
Information technology	4	5.19	110	4.68	26	5.37	136	4.67
Wholesale and retail trade	0	0.00	159	6.77	24	4.96	187	6.42
Real estate	0	0.00	170	7.23	32	6.61	210	7.21
Social services	0	0.00	75	3.19	14	2.89	89	3.06
Communication and cultural industries	8	10.39	16	0.68	4	0.83	20	0.69
Comprehensive	2	2.60	110	4.68	11	2.27	123	4.23
Total	77	100	2350	100	484	100	2911	100

41 manufacturing companies in the public bond oriented group, accounting for 53.25 per cent of the group. In the bank loan oriented sample, there are 1,385 manufacturing companies, accounting for 58.94 of the group, and only 16 companies in the communication and cultural industry, accounting for 0.68 per cent of the group. In the equity financing oriented sample, manufacturing, real estate, and information technology are the major industries in which the companies operate.

Public bond data are taken from the Wind Information database, and other data are taken from the CSMAR database.

### 3.2 Calculation of Accounting Conservatism

We measure accounting conservatism by two proxies. The first one is the accounting conservatism index ( $C\_SCORE$ ) designed by Khan and Watts (2007). The second one uses cumulative accruals to measure accounting conservatism (Givoly and Hayn, 2000).

#### 1. Accounting Conservatism Index

We use the model of Khan and Watts (2007) to calculate the accounting conservatism index. Khan and Watts (2007) suggest that due to the fact that companies have different characteristics, the degree of impact of contracting, litigation, taxation, and regulation on the investment opportunity set is not the same among different companies, and so there are also differences in corporate accounting conservatism. Based on the Basu model, Khan and Watts (2007) choose company scale ( $SIZE$ ), market-to-book ratio ( $MTB$ ), and liability ratio ( $LEV$ ) from a number of corporate characteristics to design the firm-year conservatism index ( $C\_SCORE$ ). Conservatism is calculated as follows:

First, according to the Basu model:

$$\frac{X_{i,t}}{P_{i,t-1}} = \alpha_{0,t} + \beta_{1,t}DR_{i,t} + \beta_{2,t}R_{i,t} + \beta_{3,t}R_{i,t} * DR_{i,t} + \xi_{i,t}, \quad (1)$$

where  $X_{it}$  is earnings per share of firm  $i$  in year  $t$ ;  $P_{it-1}$  is the closing stock price of firm  $i$  in year  $t-1$ ;  $R_{it}$  is the annual stock excess return considering cash dividend reinvestment of firm  $i$  in year  $t$ ; and  $DR_{it}$  is a dummy variable which equals 1 if  $R_{it} \leq 0$  and 0 otherwise. In Model 1,  $\beta_2$  is the timeliness of accounting earnings recognising “good news” and  $(\beta_2 + \beta_3)$  is the timeliness of accounting earnings recognising “bad news”;  $\beta_3$  is an increment in timeliness when comparing accounting earnings’ recognition of “bad news” with that of “good news”. Therefore, conservatism in the accounting earnings of a listed company is determined by considering whether  $\beta_3$  is significantly greater than 0.

In order to estimate the recognised timeliness of “good news” and “bad news” at the company level, Khan and Watts (2007) use three instrument variables that reflect corporate characteristics (company size, market-to-book ratio, and debt ratio) to measure the timeliness in recognising good news ( $G\_SCORE$ ) and the increment in the timeliness in recognising bad news ( $C\_SCORE$ ), both of which are expressed by linear functions:

$$G\_SCORE = \beta_{2,i,t} = \mu_{1,t} + \mu_{2,t}SIZE_{i,t} + \mu_{3,t}M / B_{i,t} + \mu_{4,t}LEV_{i,t} \quad (2)$$

$$C\_SCORE = \beta_{3,i,t} = \lambda_{1,t} + \lambda_{2,t}SIZE_{i,t} + \lambda_{3,t}M / B_{i,t} + \lambda_{4,t}LEV_{i,t} \quad (3)$$

We introduce Models (2) and (3) into Model (1) to get Model (4) as follows:

$$\begin{aligned} \frac{X_{i,t}}{P_{i,t-1}} = & \alpha_{0,t} + \beta_{1,t}DR_{i,t} + (\mu_{1,t} + \mu_{2,t}SIZE_{i,t} + \mu_{3,t}M / B_{i,t} + \mu_{4,t}LEV_{i,t})R_{i,t} \\ & + (\lambda_{1,t} + \lambda_{2,t}SIZE_{i,t} + \lambda_{3,t}M / B_{i,t} + \lambda_{4,t}LEV_{i,t})R_{i,t} * DR_{i,t} + \xi_{i,t} \end{aligned} \quad (4)$$

Using Model (4) and the annual cross-sectional data for regression to estimate annual  $\lambda_{1,t}$ ,  $\lambda_{2,t}$ ,  $\lambda_{3,t}$ , and  $\lambda_{4,t}$ , each coefficient is then introduced into Model (3) to calculate the firm-year conservatism index ( $C\_SCORE$ ).

## 2. Cumulative Accruals

In Western countries, the Basu (1997) model, which uses a reverse regression equation to build a relationship model for earnings and stock returns so as to measure conservatism, is the most commonly used measurement model of accounting conservatism. Although the Basu model has been widely used in the existing literature on accounting conservatism, it is highly controversial in terms of model setting and endogeneity (Beaver *et al.*, 1997; Dietrich *et al.*, 2007). In particular, the capital market in China is inefficient, and so the Basu model may be biased. Therefore, we use a more appropriate cumulative accrual model to measure conservatism.

The cumulative accrual model has been put forward by Givoly and Hayn (2000). They suggest that accounting conservatism reduces reported cumulative earnings in a period and that the sign and magnitude of accumulative accruals can be used as a measurement of conservatism. According to unbiased accounting, the accumulated amount of net income before depreciation and amortisation should be equal to the operating cash flows in the long run. Since the accruals tend to reverse, the final cumulative accruals would return to zero. However, if a firm adopts a conservative accounting policy, the accruals balance will continuously show a negative value. Therefore, we can use the sign and magnitude of accumulative accruals as a proxy for conservatism, and negative accumulative accruals show that accounting information is

conservative. A high negative value indicates a high degree of accounting conservatism. Ahmed and Duellman (2007), Qiang (2007), and Zhu and Xia (2010) have also used this method to measure accounting conservatism. We use accumulative accruals in three years as the proxy of accounting conservatism. Accruals are calculated as follows:

$$ACC_{i,t} = \frac{EBDA_{i,t} - CFOA_{i,t}}{SIZE_{i,t-1}} \quad (5)$$

In this model,  $ACC_{i,t}$  is the accruals of firm  $i$  in year  $t$ ;  $EBDA_{i,t}$  is the profit before depreciation and amortisation of firm  $i$  in year  $t$ , namely  $EBDA = \text{Profit before extraordinary items} + \text{depreciation and amortisation expense}$ ;  $CFOA_{i,t}$  is the operating cash flows of firm  $i$  in year  $t$ ; and  $SIZE_{i,t-1}$  is the total assets of firm  $i$  in year  $t-1$ .

The accumulated accruals are calculated as follows:

$$CACC_{i,t} = \sum_{n=0}^2 ACC_{i,t-n} \quad (6)$$

where  $CACC_{i,t}$  is the cumulative accruals of firm  $i$  in year  $t$ : for example, cumulative accruals in 2003 = accruals in 2001 + accruals in 2002 + accruals in 2003, and so on.  $CACC$  includes changes in current assets and current liabilities, deferred income tax, gains and losses of asset disposal, bad debt provisions, and other accruals or deferred expenses and income. The controlling shareholder can adjust and control the range, time, and amount of recognition of these items to reflect the conservative characteristics of accounting information. For ease of explanation, we multiply  $CACC_{i,t}$  by -1 and use  $CONSERV$  to represent the degree of conservatism. When  $CONSERV$  is greater than 0, it means that conservatism exists, and a high value of  $CONSERV$  indicates a high level of conservatism. In this paper, we winsorise the variable to eliminate the influence of abnormal values.

### 3.3 Measurement of Earnings Management

Separation of accruals, in which accruals are decomposed into discretionary accruals and non-discretionary accruals by a regression model and discretionary accruals are used to measure the degree of earnings management, is also a commonly used measurement of earnings management in China and Western countries. We adopt the performance-matched Jones model to measure accruals (Kothari *et al.*, 2005). The model is as follows:

$$TA_{it} / A_{it-1} = \alpha_0 + \alpha_1 / A_{it-1} + \alpha_{2i} (\Delta REV_{it} - \Delta REC_{it}) / A_{it-1} + \alpha_{3i} PPE_{it} / A_{it-1} + \alpha_{4i} ROA_{it} + \xi_{it} \quad (7)$$

$TA_{it}$  is the difference between net income and net operating cash flow. The intercept term is used to control for the effect of omitted variables.  $A_{it-1}$  is the total assets at the beginning of the period,  $\Delta REV_{it}$  the change in operating income, and  $PPE_{it}$  the net value of fixed assets. During the calculation process, we regress the sample data in Model 7 by industry and by year and take the residuals of the regression as the discretionary accruals.  $DA_{it}$  is the discretionary accruals for measuring the degree of earnings management. If  $DA_{it}$  is greater than 0, it indicates upward earnings manipulation, and if  $DA_{it}$  is less than 0, it indicates downward earnings manipulation.

### 3.4 Research Model

Watts (2003a, 2003b) suggests that the main factors which influence accounting conservatism include contracting, regulation, litigation, and tax. With reference to the institutional environment in China, Li and Li (2005) argue that earnings management is also a factor in accounting conservatism among China's listed companies. Zhu and Li (2008) empirically study the influence of state ownership on accounting conservatism and the root of the state ownership system. After considering the above factors, we construct the following regression model to study the impact of different forms of financing on accounting conservatism:

$$\begin{aligned} CONSERV_{i,t} = & \beta_0 + \beta_1 FINANCE_{i,t} + \beta_2 DA_{i,t} + \beta_3 REGULATION_{i,t} \\ & + \beta_4 TAX_{i,t} + \beta_5 SIZE_{i,t} + \beta_6 LEV_{i,t} + \beta_7 STATE_{i,t} \\ & + \beta_8 LITIGATION_{i,t} + \beta_9 ROA_{i,t} + \sum \beta_t YEAR \\ & + \sum \beta_i IND + \xi_{i,t} \end{aligned} \quad (8)$$

where  $CONSERV$  represents accounting conservatism, measured by  $C\_SCORE$  and  $CACC$  respectively.  $FINANCE$  represents the form of financing and is a dummy variable.  $DA$  denotes the level of earnings management. Li and Li (2005) and Qiu and Qu (2009) point out that accounting conservatism in Chinese listed companies may be "pseudo-conservatism" resulting from earnings management (big bath).  $DA$  is discretionary accruals.  $REGULATION$  is a dummy variable that represents regulation. When an industry is regulated, the cost of overvaluing assets and income is greater than that of underestimating income and assets; thus companies will prefer a conservative accounting policy (Watts, 2003a). When a company operates in the mining, utilities, and transportation and warehousing industries,  $REGULATION$  takes the value of 1; otherwise, it takes the value of 0.  $TAX$  means income tax. Watts (2003a, 2003b) suggests that companies are motivated to defer income of the current period to reduce the current

income tax paid, and Qiang (2007) argues that the link between book income and taxable income can be used as an alternative indicator of income tax cost. Qiang (2007) uses the regression coefficients of income tax expense and income tax expense minus deferred income tax for the 10-year sample period as substitute for the link between book profits and taxable income so as to represent the cost of income tax. Owing to the fact that a shorter sample period is used in this paper, we use the following to represent the impact of the cost of income tax on accounting conservatism:  $\text{income tax expense} / (\text{income tax expense} + \text{increase in deferred income tax assets} - \text{increase in deferred income tax liabilities})$ . *LITIGATION* denotes legal proceedings, and a high litigation risk in an industry will affect the use of accounting conservatism. Western studies suggest that high-tech companies have a relatively high risk of litigation (Field *et al.*, 2005; Bushman, 2006; Ahmed and Duellman, 2007). Beatty *et al.* (2008) point out that four industries—medicine, computers, electronics, and retail—face a high risk of litigation. Therefore, if the company is in these four high-risk industries, the dummy variable *LITIGATION* takes the value of 1; otherwise, it takes the value of 0.<sup>5</sup> *SIZE* represents firm size, and firm size will affect the level of accounting conservatism (Watts *et al.*, 1978; Givoly *et al.*, 2004). Since we have used the natural logarithm of assets in the calculation of the coefficient of accounting conservatism, we draw on the practice of Chen *et al.* (2008) and use the natural logarithm of operating income to proxy for firm size. *LEV* denotes the impact of debt covenants on accounting conservatism, and debt covenants will enhance conservatism (Watts, 2003a; Ahmed *et al.*, 2002). Debt covenants are generally represented by the asset-liability ratio, but as the asset-liability ratio has been used in the calculation of *C\_SCORE*, and in addition to long-term and short-term borrowings, total liabilities in the asset-liability ratio include accounts payable, accrued expenses, and taxes payable, which have limited effect on conservatism, we draw on the practice of Chen *et al.* (2008) and use long-term loans/total liabilities to denote debt covenants. Sun *et al.* (2005) also point out that the debt ratio can better reflect the impact of debt on conservatism. *STATE* is a dummy variable that denotes the nature of the company's ultimate controller. Owing to homogeneity between state-controlled listed companies and state-owned banks, there is no fundamental conflict of interest between them, and so state-owned listed companies and banks form a kind of soft debt constraint (Ping, 1998). Zhu and Li (2008) and Zhu

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<sup>5</sup> Some Western studies also consider companies whose actual earnings cannot meet the expected levels to be companies facing a high risk of litigation (Khan and Watts, 2007), but since some sample companies' earnings expectation data are not available, this category is not used in this study.



Table 3 Earnings Management Coefficients by Industry and Year

Industry	Year	$\alpha_0$	$\alpha_{1j}$	$\alpha_{2j}$	$\alpha_{3j}$	$\alpha_{4j}$	Industry	Year	Intercept	$\alpha_{1j}$	$\alpha_{2j}$	$\alpha_{3j}$	$\alpha_{4j}$
A	2007	0.030	-38.032	-0.061	-0.067	0.632	G	2007	-0.002	1.325	0.001	-0.085	0.820
A	2008	-0.038	39.813	-0.104	-0.037	1.075	G	2008	-0.014	3.124	-0.002	-0.123	0.574
A	2009	-0.074	9.673	0.004	0.076	0.262	G	2009	0.017	6.007	0.020	-0.170	0.291
A	2010	0.061	-28.576	-0.102	-0.073	0.548	G	2010	0.009	-3.846	-0.002	-0.089	0.747
A	2011	0.043	0.039	0.010	-0.190	0.776	G	2011	0.085	-6.627	0.086	-0.130	0.147
B	2007	-0.086	19.424	0.005	-0.068	0.717	H	2007	-0.002	1.387	-0.013	-0.202	0.886
B	2008	-0.029	29.654	-0.010	-0.109	0.212	H	2008	-0.049	0.627	-0.001	-0.031	0.723
B	2009	0.087	-20.129	0.089	-0.356	0.021	H	2009	-0.033	18.589	-0.021	-0.107	0.369
B	2010	-0.123	45.904	-0.007	0.087	0.651	H	2010	0.099	2.429	0.019	-0.353	-0.153
B	2011	0.018	23.669	-0.009	-0.083	0.041	H	2011	0.065	7.797	0.002	-0.351	0.366
C	2007	-0.048	20.625	-0.002	-0.006	0.780	J	2007	-0.131	6.811	-0.977	0.655	3.852
C	2008	-0.020	-3.124	-0.007	-0.079	0.725	J	2008	-0.001	28.928	-0.172	0.954	2.846
C	2009	-0.040	3.036	0.002	-0.033	0.575	J	2009	-0.104	0.434	0.959	-2.074	1.966
C	2010	-0.017	4.781	-0.002	-0.132	1.300	J	2010	0.062	-39.809	0.028	-0.261	1.398
C	2011	-0.021	377.144	0.260	-1.005	0.709	J	2011	0.091	4.004	0.499	-0.005	-0.309
D	2007	-0.009	-13.608	-0.033	-0.088	0.653	K	2007	-0.113	-6.234	0.000	0.017	1.030
D	2008	-0.096	51.672	0.398	-0.022	0.555	K	2008	0.017	-0.453	-0.043	-0.157	0.633
D	2009	-0.061	1.817	-0.193	-0.025	0.675	K	2009	-0.047	6.246	-0.084	-0.124	0.567
D	2010	-0.018	-28.279	-0.014	-0.054	0.857	K	2010	0.003	-4.119	0.071	-0.102	-0.008
D	2011	0.005	-20.216	-0.062	-0.081	0.624	K	2011	-0.114	33.673	0.008	0.000	1.405
E	2007	-0.007	66.657	0.118	-0.122	-1.370	L	2007	-0.013	-2.259	-0.189	-0.079	0.710
E	2008	-0.025	77.879	-0.034	0.099	-1.349	L	2008	-0.204	26.414	-0.013	0.306	0.559
E	2009	-0.102	-111.775	0.027	0.427	0.765	L	2009	-0.025	64.087	0.023	-0.245	1.265
E	2010	0.029	-84.665	-0.031	-0.020	0.824	L	2010	0.089	-78.100	-0.167	-0.225	0.472
E	2011	0.023	-2.899	0.002	0.064	0.332	L	2011	0.035	-9.401	-0.029	-0.104	1.295
F	2007	0.004	4.937	0.010	-0.067	0.222	M	2007	-0.003	-3.651	-0.072	-0.118	0.864
F	2008	-0.115	128.961	-0.001	-0.002	0.733	M	2008	0.002	36.367	0.533	-0.280	0.684
F	2009	-0.006	-2.897	-0.026	-0.068	0.381	M	2009	-0.049	2.962	-0.163	-0.005	0.867
F	2010	0.050	-37.188	0.038	-0.124	-0.069	M	2010	-0.010	0.852	-0.028	0.077	1.023
F	2011	-0.025	-27.404	-0.001	-0.029	0.274	M	2011	0.013	-0.369	0.031	-0.067	1.033

Notes: A represents the following industries: agriculture, forestry, animal husbandry, and fishery; B: extractive industry; C: manufacturing; D: electricity, gas and water production and supply; E: construction; F: transportation and storage; G: information technology; H: wholesale and retail trade; J: real estate; K: social services; L: communication and cultural industries; M: comprehensive.

**Table 4 Variable Definitions**

<b>Variable</b>	<b>Value</b>
<i>CONSERV</i>	Accounting conservatism, represented by <i>C_SCORE</i> and <i>CACC</i> respectively.
<i>FINANCE</i>	A dummy variable that denotes the form of financing.
<i>DA</i>	The degree of earnings management, measured by discretionary accruals.
<i>REGULATION</i>	A dummy variable; <i>REGULATION</i> takes the value of 1 when the company is in the mining, utilities, or transportation and warehousing industries and 0 otherwise.
<i>TAX</i>	Income tax expense / (income tax expense + increase in deferred income tax assets – increase in deferred income tax liabilities)
<i>LITIGATION</i>	A dummy variable; <i>LITIGATION</i> takes the value of 1 if the company is in the medicine, computers, electronics, or retail industries and 0 otherwise.
<i>SIZE</i>	The natural logarithm of operating income
<i>LEV</i>	Long-term loans / total liabilities
<i>STATE</i>	A dummy variable; <i>STATE</i> takes the value of 1 when the ultimate controller is state owned and 0 otherwise.
<i>ROA</i>	The return on total assets
<i>YEAR</i>	The year fixed effect
<i>IND</i>	The industry fixed effect; according to the Industry Classification Standard issued by the China Securities Regulatory Commission (CSRC), sample firms are divided into 12 industries after excluding the financial sector and 11 dummy variables are given.

and Chen (2006) suggest that the nature of the company's ultimate controller will affect accounting conservatism. *STATE* takes the value of 1 when the ultimate controller is state owned and 0 otherwise. *ROA* is the return on total assets, and Zhu and Xia (2009) considers that *ROA* will affect accounting conservatism. *YEAR* and *IND* stand for the year and industry fixed effects, respectively.

### 3.5 Descriptive Statistics

As shown by the descriptive statistics of accounting conservatism (Rows *C\_SCORE* and *CACC* in Table 5), whether measured by the conservatism index *C\_SCORE* or *CACC*, the mean and the median of accounting conservatism in the bank loan oriented group are significantly higher than they are in the equity financing oriented group and the public bond oriented group. Meanwhile, the public bond oriented group shows the lowest level of accounting conservatism.

**Table 5 Descriptive Statistics for Each Group**

		Firm-year	Min	1st Quartile	Mean	Median	3rd Quartile	Max
<i>C_SCORE</i>	Public bond oriented	78	-0.12	-0.03	0.07	-0.01	0.21	1.54
	Equity financing oriented	487	-0.12	-0.01	0.17	0.00	0.27	1.56
	Bank loan oriented	2366	-0.12	-0.01	0.19	0.01	0.33	1.66
	Whole sample	2931	-0.12	-0.01	0.18	0.01	0.30	1.66
<i>CACC</i>	Public bond oriented	78	-0.91	-0.20	0.01	-0.03	0.12	0.43
	Equity financing oriented	487	-0.65	-0.03	0.03	0.04	0.16	1.02
	Bank loan oriented	2366	-0.65	-0.13	0.06	0.07	0.18	1.04
	Whole sample	2931	-0.65	-0.05	0.04	0.06	0.17	1.01
<i>DA</i>	Public bond oriented	78	-1.62	-1.43	0.34	0.53	0.59	1.62
	Equity financing oriented	487	-1.35	-1.25	0.31	0.52	0.55	1.59
	Bank loan oriented	2366	-1.27	-1.22	0.25	0.48	0.51	1.58
	Whole sample	2931	-1.31	-1.23	0.28	0.50	0.52	1.59
<i>REGULATION</i>	Public bond oriented	78	0.00	0.00	0.24	0.00	0.00	1.00
	Equity financing oriented	487	0.00	0.00	0.13	0.00	0.00	1.00
	Bank loan oriented	2366	0.00	0.00	0.09	0.00	0.00	1.00
	Whole sample	2931	0.00	0.00	0.10	0.00	0.00	1.00
<i>TAX</i>	Public bond oriented	78	-0.04	0.14	0.19	0.19	0.25	0.44
	Equity financing oriented	487	-0.04	0.11	0.17	0.17	0.24	0.44
	Bank loan oriented	2366	-0.04	0.11	0.18	0.18	0.26	0.44
	Whole sample	2931	-0.04	0.11	0.18	0.17	0.26	0.44
<i>LITIGATION</i>	Public bond oriented	78	0.00	0.00	0.14	0.00	0.00	1.00
	Equity financing oriented	487	0.00	0.00	0.17	0.00	0.00	1.00
	Bank loan oriented	2366	0.00	0.00	0.20	0.00	0.00	1.00
	Whole sample	2931	0.00	0.00	0.19	0.00	0.00	1.00
<i>SIZE</i>	Public bond oriented	78	20.06	21.71	22.54	22.53	23.68	23.90
	Equity financing oriented	487	19.41	20.65	21.59	21.54	22.49	23.90
	Bank loan oriented	2366	19.41	20.50	21.31	21.24	22.00	23.90
	Whole sample	2931	19.41	20.54	21.39	21.30	22.11	23.90
<i>LEV</i>	Public bond oriented	78	0.00	0.02	0.16	0.14	0.26	0.48
	Equity financing oriented	487	0.00	0.00	0.13	0.07	0.23	0.48
	Bank loan oriented	2366	0.00	0.00	0.13	0.07	0.21	0.48
	Whole sample	2931	0.00	0.00	0.13	0.07	0.22	0.48
<i>STATE</i>	Public bond oriented	78	0.00	0.00	0.64	1.00	1.00	1.00
	Equity financing oriented	487	0.00	0.00	0.52	1.00	1.00	1.00
	Bank loan oriented	2366	0.00	0.00	0.48	0.00	1.00	1.00
	Whole sample	2931	0.00	0.00	0.49	0.00	1.00	1.00
<i>ROA</i>	Public bond oriented	78	-0.03	0.02	0.05	0.04	0.08	0.13
	Equity financing oriented	487	-0.04	0.03	0.06	0.05	0.08	0.13
	Bank loan oriented	2366	-0.04	0.01	0.04	0.04	0.07	0.13
	Whole sample	2931	-0.04	0.01	0.04	0.04	0.07	0.13

Table 6 Correlation Test Results of Bank Loan Oriented Group and Equity Financing Oriented Group

	<i>C_SCORE</i>	<i>CACC</i>	<i>FINANCE</i>	<i>DA</i>	<i>REGULATION</i>	<i>TAX</i>	<i>SIZE</i>	<i>LEV</i>	<i>STATE</i>	<i>LITIGATION</i>	<i>ROA</i>
<i>C_SCORE</i>	1										
<i>CACC</i>	0.016 (0.482)	1									
<i>FINANCE</i>	0.185*** (<.0001)	0.067*** (<.0001)	1								
<i>DA</i>	-0.058*** (0.000)	-0.079*** (<.0001)	-0.028* (0.066)	1							
<i>REGULATION</i>	0.011** (0.011)	0.138*** (<.0001)	-0.104 (0.126)	-0.048* (0.086)	1						
<i>TAX</i>	-0.028 (0.263)	-0.045 (0.219)	0.020 (0.154)	-0.765 (0.254)	0.055* (0.053)	1					
<i>SIZE</i>	0.042*** (0.003)	0.019* (0.093)	0.153 (0.119)	0.608* (0.079)	0.093** (0.017)	0.013** (0.036)	1				
<i>LEV</i>	0.059** (0.043)	0.043** (0.035)	-0.021 (0.465)	-0.048* (0.051)	0.341 (0.521)	0.421** (0.012)	0.153 (0.162)	1			
<i>STATE</i>	0.087** (0.017)	0.074** (0.047)	-0.049** (0.056)	-0.066 (0.437)	0.323 (0.159)	0.033 (0.533)	0.638 (0.329)	0.063* (0.063)	1		
<i>LITIGATION</i>	0.032 (0.774)	0.091 (0.258)	0.031** (0.021)	0.069 (0.533)	-0.713* (0.063)	-0.314 (0.252)	-0.053* (0.054)	-0.514 (0.138)	-0.343 (0.535)	1	
<i>ROA</i>	0.079* (0.052)	-0.103* (0.066)	-0.216* (0.086)	0.146* (0.067)	-0.523 (0.342)	-0.064 (0.595)	0.044** (0.041)	-0.064* (0.074)	-0.631 (0.154)	0.264* (0.055)	1

Notes: \*\*\*, \*\*, and \* denote significance at the 1%, 5%, and 10% levels, respectively. Spearman correlation coefficients are in the lower left corner. The numbers in brackets are P values. The test sample includes the bank loan oriented group and the equity financing oriented group. *FINANCE* takes the value of 1 if the firm belongs to the bank loan oriented group and 0 otherwise.

Table 7 Correlation Test Results of Equity Financing Oriented Group and Public Bond Oriented Group

	<i>C_SCORE</i>	<i>CACC</i>	<i>FINANCE</i>	<i>DA</i>	<i>REGULATION</i>	<i>TAX</i>	<i>SIZE</i>	<i>LEV</i>	<i>STATE</i>	<i>LITIGATION</i>	<i>ROA</i>
<i>C_SCORE</i>	1										
<i>CACC</i>	0.037 (0.261)	1									
<i>FINANCE</i>	0.178*** (0.003)	0.074* (0.086)	1								
<i>DA</i>	-0.026** (0.054)	-0.243*** (<.0001)	0.042 (0.316)	1							
<i>REGULATION</i>	0.024* (0.057)	0.170*** (<.0001)	-0.121** (0.023)	0.034 (0.135)	1						
<i>TAX</i>	0.065 (0.163)	-0.028 (0.596)	-0.077 (0.201)	-0.064* (0.057)	0.053 (0.156)	1					
<i>SIZE</i>	-0.033* (0.051)	0.054** (0.028)	-0.181*** (<.0001)	-0.243** (0.025)	0.163*** (0.002)	0.217 (0.235)	1				
<i>LEV</i>	-0.084** (0.037)	0.125** (0.021)	-0.082* (0.068)	-0.043 (0.174)	0.225*** (<.0001)	0.132* (0.060)	0.115*** (0.000)	1			
<i>STATE</i>	0.054* (0.062)	0.087* (0.074)	-0.036 (0.217)	-0.176** (0.043)	0.169 (0.742)	0.147 (0.168)	0.165 (0.262)	0.162*** (0.001)	1		
<i>LITIGATION</i>	-0.048 (0.169)	0.014 (0.672)	0.038 (0.288)	-0.078 (0.833)	-0.112* (0.007)	-0.076 (0.746)	-0.048** (0.0385)	-0.219*** (0.007)	-0.053 (0.732)	1	
<i>ROA</i>	0.161*** (<.0001)	0.026** (0.032)	0.016* (0.093)	0.135*** (0.009)	0.159 (0.547)	-0.046 (0.216)	0.028 (0.672)	-0.167 (0.383)	-0.277* (0.059)	0.016 (0.374)	1

Notes: \*\*\*, \*\*, and \* denote significance at the 1%, 5%, and 10% levels, respectively. Spearman correlation coefficients are in the lower left corner. The numbers in brackets are P values. The test sample includes the equity financing oriented sample group and the public bond oriented group. *FINANCE* takes the value of 1 if the firm belongs to the equity financing oriented group and 0 otherwise.

Table 8 Correlation Test Results of Bank Loan Oriented Group and Public Bond Oriented Group

	C_SCORE	CACC	FINANCE	DA	REGULATION	TAX	SIZE	LEV	STATE	LITIGATION	ROA
C_SCORE	1										
CACC	0.014 (0.557)	1									
FINANCE	0.033** (0.014)	0.026*** (<.0001)	1								
DA	-0.056*** (0.006)	-0.115*** (<.0001)	-0.014 (0.535)	1							
REGULATION	0.016*** (0.003)	0.258*** (<.0001)	-0.053** (0.024)	-0.064** (0.033)	1						
TAX	-0.055** (0.046)	-0.032 (0.178)	-0.016 (0.174)	-0.637 (0.368)	0.052** (0.0363)	1					
SIZE	-0.051* (0.077)	0.015* (0.063)	-0.042 (0.627)	-0.026* (0.056)	0.156* (0.082)	0.174 (0.236)	1				
LEV	0.054** (0.024)	0.129*** (0.002)	-0.114** (0.025)	-0.114* (0.064)	0.025* (0.094)	0.064 (0.388)	0.065 (0.321)	1			
STATE	0.068*** (<.0001)	0.087* (0.051)	-0.414* (0.093)	-0.279** (0.014)	0.058* (0.570)	0.083 (0.264)	0.524 (0.946)	0.085 (0.673)	1		
LITIGATION	0.021 (0.433)	0.217 (0.205)	0.015 (0.115)	0.045** (0.064)	-0.133* (0.085)	-0.026 (0.316)	-0.173* (0.055)	-0.277 (0.463)	-0.525 (0.275)	1	
ROA	0.029 (0.337)	-0.127*** (<.0001)	-0.018 (0.390)	0.054 (0.513)	-0.032 (0.478)	-0.054 (0.485)	0.111* (0.063)	-0.042* (0.052)	-0.037 (0.367)	0.063*** (0.006)	1

Notes: \*\*\*, \*\*, and \* denote significance at the 1%, 5%, and 10% levels, respectively. Spearman correlation coefficients are in the lower left corner. The numbers in brackets are P values. The test sample includes the bank loan oriented group and the public bond oriented group. FINANCE takes the value of 1 if the firm belongs to the bank loan oriented group and 0 otherwise.

## IV. Empirical Results and Analysis

### 4.1 Correlation Analysis

This research's sample is divided into three groups to test the correlation of variables in the proposed regression model. Table 6 reports the correlation test results of the bank loan oriented group and the equity financing oriented group. *FINANCE* takes the value of 1 if the firm belongs to the bank loan oriented group and 0 otherwise. The results show that the Spearman correlation coefficient of *FINANCE* and *C\_SCORE* is 0.185 and significant at the 1 per cent level. The Spearman correlation coefficient of *FINANCE* and *CACC* is 0.067 and significant at the 1 per cent level, showing that the bank loan oriented group's level of accounting conservatism is significantly higher than that of the equity financing oriented group.

Table 7 reports the correlation test results of the equity financing oriented group and the public bond oriented group. *FINANCE* takes the value of 1 if the firm belongs to the equity financing oriented group and 0 otherwise. The results show that the Spearman correlation coefficients of *FINANCE*, *C\_SCORE*, and *CACC* are significantly and positively correlated at the 5 per cent and 1 per cent levels, showing that the equity financing oriented group's level of accounting conservatism is significantly higher than that of the public bond oriented group.

Table 8 reports the correlation test results of the bank loan oriented group and the public bond oriented group. *FINANCE* takes the value of 1 if the firm is in the bank loan oriented group and 0 otherwise. The results show that the Spearman correlation coefficients of *FINANCE*, *C\_SCORE*, and *CACC* are significantly and positively related at the 5 per cent and 1 per cent levels, showing that the bank loan oriented group's level of accounting conservatism is significantly higher than that of the public bond oriented group.

### 4.2 Paired Test

In order to test the difference in accounting conservatism between different forms of financing more accurately, we conduct paired tests using the three sample groups respectively. Table 9 reports the paired test results of accounting conservatism in the bank loan oriented group and the equity financing oriented group. The results show that there are significant differences between the two groups in terms of the mean and the median of the accounting conservatism index measured by *C\_SCORE* and *CACC*. The differences in mean or median are positive and significant at the 1 per cent level. The mean difference of conservatism measured by *C\_SCORE* is 16.67 per cent ( $0.03/0.19 = 15.79\%$ ), and the mean difference of conservatism measured by *CACC* is as high as 62.5 per cent

( $0.05/0.08 = 62.5\%$ ), with the difference in median reaching 42.86 per cent ( $0.03/0.07 = 42.86\%$ ), showing that the accounting conservatism of the bank loan oriented group is significantly higher than that of the equity financing oriented group.

With regard to earnings management (*DA* in Table 9), the degree of earnings management in the bank loan oriented group is less than that in the equity financing oriented group at the 5 per cent significance level according to the T test result of mean, and the result of the bilateral Wilcoxon rank-sum median test is significant at the 10 per cent significance level. Overall, the degree of accounting conservatism in the bank loan oriented group and the equity financing oriented group is negatively correlated with earnings management; in other words, the higher the degree of accounting conservatism the group has, the lower the level of earnings management.

**Table 9 Paired Test Results of Bank Loan Oriented Group and Equity Financing Oriented Group**

		<u>Bank loan oriented</u>	<u>Equity financing oriented</u>	Difference	P-value
<i>C_SCORE</i>	Mean	0.19	0.17	0.02***	<.0001
	Median	0.01	0.00	0.01***	<.0001
<i>CACC</i>	Mean	0.08	0.03	0.05***	<.0001
	Median	0.07	0.04	0.03***	<.0001
<i>DA</i>	Mean	0.25	0.31	-0.06**	0.0213
	Median	0.48	0.52	-0.02*	0.0547

Notes: \*\*\*, \*\*, and \* denote significance at the 1%, 5%, and 10% levels, respectively. The comparison of mean uses the bilateral t test, and the comparison of median uses the bilateral Wilcoxon rank sum test.

Table 10 reports the paired test results of accounting conservatism in the equity financing oriented group and the public bond oriented group. The test results show that there are significant differences in the mean and median of the conservatism indices *C\_SCORE* and *CACC* between the two groups. Both the mean and median differences are positive, but the difference in the mean of *C\_SCORE* is significant at the 5 per cent level and other differences are significant at the 1 per cent level. It should be noted that the mean and the median of *C\_SCORE* and *CACC* in the equity financing oriented group are significantly greater than 0, while in the public bond oriented group, all indicators are less than 0 except for the mean of *C\_SCORE*, which is greater than 0. Overall, conservatism in the public bond oriented group is at a very low level, and the group can even be considered to be not conservative. In summary, the accountancy conservatism of equity financing oriented listed companies is significantly higher than that of public bond oriented listed companies.



As regards earnings management in the two groups (*DA* in Table 10), the equity financing oriented group's level of earnings management is significantly lower than that of the public bond oriented group; the former is significant at the 5 per cent level, while the latter is significant at the 10 per cent level. In view of the overall situation of the two groups, accounting conservatism and earnings management are also significantly and negatively correlated.

**Table 10 Paired Test Results of Equity Financing Oriented Group and Public Bond Oriented Group**

		<u>Equity financing</u>	<u>Public bond</u>	Difference	P-value
		<u>oriented</u>	<u>oriented</u>		
<i>C_SCORE</i>	Mean	0.17	0.07	0.10***	<.0001
	Median	0.00	-0.01	0.01***	<.0001
<i>CACC</i>	Mean	0.03	0.01	0.02**	0.0265
	Median	0.04	-0.03	0.07***	<.0001
<i>DA</i>	Mean	0.31	0.55	-0.16**	0.0254
	Median	0.52	0.54	-0.08*	0.0551

Notes: \*\*\*, \*\*, and \* denote significance at the 1%, 5%, and 10% levels, respectively. The comparison of mean uses the bilateral t test; the comparison of median uses the bilateral Wilcoxon rank sum test.

Table 11 reports the paired test results of accounting conservatism in the bank loan oriented group and the public bond oriented group. Both groups use debt financing, but one uses direct debt financing and the other uses indirect debt financing. The test results show that there are significant differences in the mean and the median of *C\_SCORE* and *CACC* between the two groups. Both the mean and median differences are positive and significant at the 1 per cent level, indicating that the level of accounting conservatism in bank loan oriented companies is significantly higher than it is in public bond oriented companies.

Regarding earnings management in the two groups, the level of earnings management in the bank loan oriented group is remarkably lower than it is in the public bond oriented group, and it is significant at the 1 per cent and 5 per cent levels in the two tests. The correlation between accounting conservatism and earnings management remains highly negative.

#### 4.3 Regression Analysis

From the correlation analysis and the paired test, we find that there is a significant

**Table 11 Paired Test Results of Bank Loan Oriented Group and Public Bond Oriented Group**

		<u>Bank loan oriented</u>	<u>Public bond oriented</u>	Difference	P-value
<i>C_SCORE</i>	Mean	0.19	0.07	0.12***	<.0001
	Median	0.01	-0.01	0.02***	<.0001
<i>CACC</i>	Mean	0.08	0.01	0.07***	<.0001
	Median	0.07	-0.03	0.10***	<.0001
<i>DA</i>	Mean	0.25	0.34	-0.09***	<.0001
	Median	0.48	0.53	-0.05**	0.0235

Notes: \*\*\*, \*\*, and \* denote significance at the 1%, 5%, and 10% levels, respectively. The comparison of mean uses the bilateral t test; the comparison of median uses the bilateral Wilcoxon rank sum test.

difference in accounting conservatism and earnings management between the bank loan oriented, equity financing oriented and public bond oriented groups and the degree of accounting conservatism and earnings management shows a negative correlation between the groups. Next, we use Model 8 to test the difference in conservatism between the three groups.

Table 12 reports the regression results of the different financing oriented groups. In the regression analysis of the bank loan oriented group and the equity financing oriented group, *FINANCE* takes the value of 1 when the sample firm belongs to the bank loan oriented group and 0 otherwise. The regression results suggests that when the accounting conservatism is measured by *C\_SCORE*, the *FINANCE* coefficient is 0.022 with a positive sign and significant at the 1 per cent level, showing that the level of accounting conservatism in the bank loan oriented group is significantly higher than it is in the equity financing oriented group. The adjusted R-squared of the regression model is as high as 0.597, indicating a high degree of model fit. Regression results taking *CACC* as the accounting conservatism metric are similar to those of the *C\_SCORE* regression model; the coefficient of *FINANCE* (0.015) is also positive and significant at the 10 per cent level. Overall, the level of accounting conservatism in bank loan oriented companies is significantly higher than it is in equity financing oriented companies.

In the regression analysis of the equity financing oriented group and the public bond oriented group, *FINANCE* takes the value of 1 when the sample firm belongs to the equity financing oriented group and 0 otherwise. The regression results show that regardless of whether accounting conservatism is measured by *C\_SCORE* or *CACC*, the coefficients of *FINANCE* are significantly greater than 0: 0.055 and 0.046, respectively. The goodness-of-fit and the explanatory power of the model are quite good. The

**Table 12 Regression Analysis of Accounting Conservatism in Different Financing Oriented Groups**

$$CONSERV_{i,t} = \beta_0 + \beta_1 FINANCE_{i,t} + \beta_2 DA_{i,t} + \beta_3 REGULATION_{i,t} + \beta_4 TAX_{i,t} + \beta_5 SIZE_{i,t} + \beta_6 LEV_{i,t} + \beta_7 STATE_{i,t} + \beta_8 LITIGATION_{i,t} + \beta_9 ROA_{i,t} + \sum \beta_i YEAR + \sum \beta_i IND + \xi_{i,t}$$

	Bank loan oriented and equity financing oriented <sup>①</sup>		Equity financing oriented and public bond oriented <sup>②</sup>		Bank loan oriented and public bond oriented <sup>③</sup>	
	Dependent variable		Dependent variable		Dependent variable	
	<i>C_SCORE</i>	<i>CACC</i>	<i>C_SCORE</i>	<i>CACC</i>	<i>C_SCORE</i>	<i>CACC</i>
<i>FINANCE</i>	0.022*** (3.72)	0.015* (1.96)	0.055** (2.23)	0.046*** (3.59)	0.038*** (2.92)	0.065* (1.81)
<i>DA</i>	-0.022*** (-2.99)	-0.295*** (-4.75)	-0.012** (-2.23)	-0.159* (-1.98)	-0.065** (-2.77)	-0.454*** (-4.65)
<i>REGULATION</i>	0.023*** (2.69)	0.122* (2.05)	0.044* (1.87)	0.343*** (2.73)	0.035** (2.53)	0.074** (2.26)
<i>TAX</i>	-0.013 (-0.67)	-0.021 (-0.77)	0.055 (1.65)	-0.185 (-1.53)	-0.047 (-1.55)	0.016 (0.92)
<i>SIZE</i>	-0.169*** (-3.25)	0.003 (0.56)	-0.085*** (-3.74)	-0.023 (-1.56)	0.065* (1.89)	0.006* (1.96)
<i>LEV</i>	0.033** (2.68)	0.139*** (2.77)	-0.044 (-1.49)	0.253** (2.44)	0.032* (1.78)	0.013** (2.43)
<i>STATE</i>	0.012* (1.90)	0.027** (2.42)	0.017*** (2.92)	0.053*** (2.67)	0.012** (2.64)	0.026* (1.85)
<i>LITIGATION</i>	0.006 (0.48)	0.033 (1.62)	-0.007 (-0.45)	-0.060 (-0.78)	0.005 (0.32)	0.053** (2.42)
<i>ROA</i>	0.157*** (3.80)	-0.245 (-1.63)	0.286* (1.94)	0.834** (2.42)	0.131** (2.74)	0.225** (2.61)
Intercept	-1.046*** (-106.65)	0.121* (1.89)	-2.667*** (-26.32)	0.432* (1.88)	2.842*** (21.56)	-0.744*** (-10.87)
Year	Control	Control	Control	Control	Control	Control
Industry	Control	Control	Control	Control	Control	Control
Adj R-Sq	0.632	0.217	0.644	0.232	0.753	0.146
F Value	286.32***	57.49***	264.05***	36.55**	355.42***	27.42***

Notes: \*\*\*, \*\*, and \* denote significance at the 1%, 5%, and 10% levels, respectively. The numbers in brackets are T-values. <sup>①</sup> The test sample includes the bank loan oriented group and the equity financing oriented group; *FINANCE* takes the value of 1 if the firm belongs to the bank loan oriented group and 0 otherwise. The test sample includes the equity financing oriented group and the public bond oriented group; *FINANCE* takes the value of 1 if the firm belongs to the equity financing oriented group and 0 otherwise. <sup>②</sup> The test sample includes the bank loan oriented group and the public bond oriented group; *FINANCE* takes the value of 1 if the firm belongs to the bank loan oriented group and 0 otherwise. <sup>③</sup> The test sample includes the bank loan oriented group and the public bond oriented group; *FINANCE* takes the value of 1 if the firm belongs to the bank loan oriented group and 0 otherwise.

regression analysis shows that after controlling for other factors which may influence accounting conservatism, there are significant differences in accounting conservatism between the two groups. The level of accounting conservatism in the equity financing oriented group is higher than it is in the public bond oriented group.

In the regression analysis of the bank loan oriented group and the public bond oriented group, *FINANCE* takes the value of 1 when the firm belongs to the bank loan oriented group and 0 otherwise. The regression results show that using *C\_SCORE* as the dependent variable, the coefficient of *FINANCE* is 0.038 and significant at the 1 per cent level. Using *CACC* as the dependent variable in the regression model, the coefficient is 0.065 and significant at the 10 per cent level. Overall, the level of accounting conservatism in bank loan oriented listed companies is higher than it is in public bond oriented firms.

With respect to the control variables, discretionary accruals (*DA*) are negatively correlated with accounting conservatism and higher discretionary accruals cause less accounting conservatism. The level of conservatism in a regulated industry is higher. Income tax (*TAX*) does not have a consistent and significant relation with accounting conservatism. Company size (*SIZE*) does not have a consistent relation with accounting conservatism. In the first group regression and the second group regression, company size presents a significant and negative correlation with *C\_SCORE* and no significant correlation with *CACC*. In the third group regression, company size presents a positive correlation with accounting conservatism, which is inconsistent with our expectation. In fact, as large companies are prone to public oversight, they have to bear greater litigation costs; thus, they may adopt more conservative accounting policies. However, this phenomenon may be caused by the method of measuring accounting conservatism, and one measurement method on its own is not enough to fully reflect the level of accounting conservatism. Different measurement methods of conservatism level have different or even opposite results, and *C\_SCORE* will also be affected by the measurement error caused by the Basu model (Givoly *et al.*, 2007). The level of debt (*LEV*) is positively and significantly related with accounting conservatism, and a higher debt ratio leads to the adoption of a more conservative accounting policy, which is consistent with quite a number of research results (Ahmed *et al.*, 2002; Sun *et al.*, 2005).

The level of accounting conservatism in state-owned enterprises (*STATE*) is higher than it is in non-state-owned enterprises, which is consistent with Zhu and Xia (2009) but contrary to Sun *et al.* (2005) and Zhu and Li (2008), who find that accounting conservatism in state-owned listed companies is at a lower level. They argue that the absence of owners and officials in pursuit of operating performance may directly cause

the decrease in accounting conservatism in state-owned companies and that officials oppose the pursuit of a high level of conservatism. We hold that although the absence of owners makes some state-owned enterprises look as though they have no controller, the constraints and pressure imposed on the leaders of state-owned enterprises should be higher than those on non-state-owned enterprises. Much greater political pressure is imposed on the leaders of state-owned enterprises, and they are strictly bound by party discipline. When facing the choice of achieving performance or being at fault, the management of state-owned enterprises would prefer no performance to being at fault. The compliance cost of the leaders in state-owned enterprises is higher. Therefore, it is necessary for them to comply with national laws and the guidelines of regulatory agencies, and the motivation of state-owned enterprises to follow the accounting standards is stronger than that of non-state-owned enterprises. *LITIGATION* has no significant correlation with conservatism. This may be due to the fact that China's legal system is still under development and weak law enforcement leads to easy breaches of contracts, while legal punishment is easily circumvented. Therefore, legal contracting cannot affect the level of accounting conservatism. The legal system in China is not yet sound as it is in the US. Company profitability (*ROA*) positively correlates with accounting conservatism.

#### **4.4 Results Analysis**

On the whole, accounting information in the three types of companies shows obvious conservatism. As shown by the group test results, the conclusions of the paired tests, correlation analyses, and regression analyses are consistent: The level of accounting conservatism in bank loan oriented companies is higher than it is in equity financing oriented companies and the level of accounting conservatism in public bond oriented companies is lower than it is in the equity financing oriented companies. The bank loan oriented companies show the highest level of accounting conservatism, followed by the equity financing oriented companies and then the public bond oriented companies.

First, the level of accounting conservatism in bank loan oriented companies is higher than it is in the equity financing oriented companies, which is consistent with our hypothesis. Banks as creditors face asymmetric gains and losses compared to debtors. Unlike large shareholders, banks cannot directly monitor managers' behaviour to safeguard their own rights and interests. Therefore, the demand for accounting conservatism is stronger for bank loan oriented companies than for equity financing oriented companies. This conclusion is consistent with Ahmed *et al.* (2002), who argue that companies with bigger conflicts of interest between creditors and shareholders are more likely to adopt more conservative accounting policies because conservative accounting information will result in lower assets and higher liabilities, which can reduce

the risk to creditors. At the same time, the conclusion clarifies the doubts raised by Schipper (2005) and Guay and Verrecchia (2006) regarding the requirements of creditors with regard to conservative accounting. They argue that creditors can amend a contract to correct the bias of accounting information. As pointed out by Beatty *et al.* (2008), modifications of debt contracts are feasible but not common and modifications of debt contracts cannot reach the conservative level that creditors require the debtor to achieve. Changes in debt contracts often occur at high agency and contracting costs and when there is low demand for conservative accounting from government regulators, the legal system, and the tax authorities, and so debt contract modifications cannot replace the conservative accounting requirements of creditors. The empirical results also show that conservative accounting information does indeed play an effective governance role in bank debt contracting.

Second, the empirical results show that the level of accounting conservatism in public bond oriented companies is not, as we thought, higher than it is in the other two kinds of companies; rather, it is lower than it is in equity financing oriented and bank loan oriented companies, and this is the “public bond puzzle” of accounting conservatism in Chinese capital markets. The formation of the “public bond puzzle” is related to China’s securities regulatory system. According to the *Securities Law of the People’s Republic of China*, the following conditions must be met for the issuance of new shares: the organisation must (1) be sound and well operated, (2) have sustained profitability and be in good financial condition, (3) have no false records in its financial and accounting documents for the latest three years and no other major violations, and (4) meet other conditions stipulated by the securities regulatory authorities under the State Council. Public offerings of corporate bonds must comply with the following conditions: (1) net assets of a limited company are not less than 30 million renminbi, and net assets of a limited liability company are not less than 60 million renminbi; (2) the cumulative debt balance does not exceed 40 per cent of the net assets of the company; (3) the average distributable profits for the latest three years are sufficient to cover one-year interest on the bonds; (4) the purpose of raised funds is in line with national industrial policies; (5) the bond interest rate does not exceed the level of interest rates set by the State Council; and (6) other requirements prescribed by the State Council. In view of the scope and intensity of regulation, the public issuance of corporate bonds for refinancing is stricter than equity refinancing. The condition of the assets and the operating performance of the companies issuing public bonds are better and their financial risks are lower. Therefore, the demand from investors for these companies to adopt conservative accounting is relatively weak. In addition, due to the corresponding requirements on the net assets and

profits of companies issuing public debt, the implementation of accounting conservatism may lead to some companies not meeting the issuing requirements, thus increasing the cost of adopting conservative accounting policies.

Another possible reason for the lower level of accounting conservatism in public bond oriented companies may be that although there is a strong demand for conservative accounting from public debt creditors, these creditors are individual investors without professional knowledge and so their ability to monitor and negotiate with managers is weak. In addition, they do not participate in the management of the company and are not represented on the board of directors. Owing to dispersed ownership, strong liquidity, and the existence of the “free ride” problem, the ability of creditors to force a company to satisfy their demand is relatively weak.

## **V. Research Conclusions**

This paper investigates the impact of accounting conservatism on a company's financing activities by analysing the level of accounting conservatism for different modes of financing in China's A-share stock market. Based on the refinancing channels of listed companies in China, we divide companies into an equity financing oriented group, a bank loan oriented group, and a public bond oriented group in order to study how accounting conservatism affects equity contracting, bank debt covenants, and public bond covenants and, in turn, a company's fundraising behaviour. The advantages of this division are as follows. On the one hand, it can distinguish in detail differences in terms of the need for accounting conservatism between equity contracting, bank debt contracting, and public bond covenants. On the other hand, it can avoid the research's conclusions being influenced by the nonlinear relationship between accounting conservatism and contracting. The results of this study show that accounting conservatism exists in all three groups of companies, but there is a significant difference in the level of accounting conservatism between the three groups. The level of accounting conservatism in the bank loan oriented group is the highest, followed by the equity financing oriented group, and that in the public bond oriented group is the lowest. We analyse the reasons behind the empirical results from multiple angles. Compared with the equity financing oriented group, the level of accounting conservatism in the bank loan oriented group is higher. The reason for this may be that banks face greater information asymmetry than shareholders and cannot directly monitor managers' behaviour and so their demand for accounting conservatism is stronger. We believe that there may be three reasons that explain why the level of accounting conservatism in public bond oriented companies is low. First, in terms

of regulation, the issuance requirements for a company's net assets, profits, and purpose of raising funds are more stringent than those for issuing new shares. Second, due to the strict requirements, conservative accounting policies may lead to some companies being unable to meet the conditions for issuance, thus increasing the cost of conservative accounting. Finally, public bond creditors are mostly individual investors who lack oversight and negotiation capacity, and so they cannot force a company to adopt conservative accounting policies.

This paper enriches the contracting interpretation of accounting conservatism, extends previous research which mainly focuses on debt contracting, and studies the differences in the demand for accounting conservatism between different contracting mechanisms. We study the relationship between accounting information and corporate financing from the perspective of accounting conservatism, and this enriches the research on the economic consequences of accounting conservatism.

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