

股权结构与上市公司审计委员会的设立*

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摘要

本文基于控股股东与中小股东代理问题的分析,从上市公司自愿设立审计委员会的视角,分析了股权结构与公司监督机制选择的关系。研究表明,第一大股东对公司实现绝对控股时,出于对中小股东利益“掠夺”的需要,公司自愿设立审计委员会的可能性显著下降;制衡性股权结构有利公司监督机制的完善,非控股股东持股比例越高,公司设立审计委员会的可能性更大,其中,第二大股东起主导作用。此外,我们还发现,对于非国有股控股公司,其控股股东加强了对公司的控制,公司设立审计委员会的可能性较低。

关键词: 审计委员会、股权结构、自愿设立

一、引言

与其他新兴市场国家类似,我国上市公司也表现出高度集中的所有权结构。所有权集中虽然可以减缓股权分散状况下对管理层监督的“搭便车”问题,但所有权集中的成本可能是巨大的。当大股东对公司的控制权超过其现金流权时,它就有动机利用其控制权通过各种方式“掠夺”(entrenchment)其他股东和投资者的利益(Shleifer及Vishny, 1997)。就我国情况而言,在股市成立后的很长时间内,我国一直采用“审批制”和“额度制”相结合

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的股票发行上市监管模式。为竞争资源，达到监管部门的上市要求，很多上市公司都是控股股东通过剥离其原有企业非核心资产的模式改制上市。这种制度安排使得上市公司与控股股东之间形成了复杂、密不可分的利益关系。集中的所有权结构对公司治理的影响在我国更多地表现为控股股东对其他股东和投资者的“掠夺效应”。控股股东的这些行为严重损害和误导了中小股东的合法权益和投资决策，导致投资者投资意识淡薄，严重影响了我 国资本市场资源配置作用的发挥。尽管我国证券监管机构近年来一直致力于通过改善外部治理和加强监管等措施来缓解上述问题，但由于股权高度集中，控股股东对上市公司的控制权仍无法得到有效制约，这些措施收效甚微。因为仅通过加强外部治理和政府监管无法改变上市公司股权高度集中，以及由上市制度所导致的上市公司与控股股东之间形成的利益关系。意识到中国上市公司治理问题的这一特征后，我国学者对国内上市公司的股权结构与公司治理之间的关系进行了广泛的研究³。尽管这些研究从不同侧面揭示了我国股权结构与公司治理之间的关系，但普遍存在的一个共同问题是，均简单地从股权性质、持股关系等角度直接研究股权结构与公司业绩和具体交易行为之间的关系，而针对股权结构的具体作用过程，如何具体影响公司治理行为，是否对公司治理机制的选择和实施等问题的研究还比较少。

审计委员会是董事会下属的专门委员会。审计委员会的概念最早源于美国，最初设立的目的是为外部审计提供支持，提高财务信息的质量。历经发展，在英美等国上市公司中，审计委员会已成为充分利用内、外部审计，对公司财务控制体系和风险管理体系进行全面评价和监控，并能对特别事项予以调查的独立机构。审计委员会以“独立外部人”身份，参与公司决策，能够实现对公司实际控制人（管理层或大股东）的有效监督，全面确保公司受托责任的履行和解除，维护全体股东的利益（陈汉文等，2004）。我国颁布的《上市公司治理准则》指出，上市公司董事会可以按照股东大会的有关决议设立审计委员会。本文以上市公司自愿选择设立审计委员会这一独特的视角，探讨股权结构对公司治理机制选择和实施的影响。研究结果发现控股股东的持股比例与上市公司设立审计委员会的可能性负相关，当存在能够对控股股东有效制衡的大股东时，公司设立审计委员会的可能性显著增加。这说明非控股大股东有动力积极推进公司内部治理机制的完善，以充分利用公司资源对控股股东进行制衡，以保护自身利益。此外，大股东的股权性质对公司是否设立审计委员会也存在显著影响。

³ 根据陈信元、陈冬华和朱凯（2004）的统计，1993—2003年间，在我国9份主要的经济学和管理学期刊中，发表的有关股权结构与公司治理的实证研究论文共计41篇。

本文后续部分的安排如下：第二部分对国内外的相关文献进行评述；第三部分对我国上市公司设立审计委员会的动机进行理论分析，并提出本文的研究假设；第四部分是研究设计和对样本、数据特征进行描述；第五部分是实证结果和分析；第六部分是附加测试；最后是研究结论和对全文的总结。

二、文献述评

国外学者利用股权分散条件下代理理论的分析框架，对影响审计委员会设立的因素进行了比较全面的研究。审计委员会的本原是协助内、外部审计，全面提高财务信息质量的监督机制。由于审计委员会与内部审计的关系较难观察到，关于审计委员会的经验研究主要从外部审计的角度开展的。Chow (1982) 认为代理成本较高的情况下，公司会产生对外部审计的需求。所以，代理成本越高，公司越有可能自愿设立审计委员会以提高各委托人与受托人之间信息沟通的质量。Pincus *et al.* (1989)、Menon & Williams (1994)、Bradbury (1990)、Collier (1993) 分别利用美国 OTC 公司、新西兰和英国上市公司的样本研究了各种代理成本的替代变量与公司自愿设立审计委员会之间的关系。他们使用的代理成本变量以及主要的研究结论可见表 1。由表 1 可见，相关研究并没得到一致的结论。Collier & Gregory (1999) 认为其中的原因是，不同证券市场上市公司的规模、股权的分散程度以及股票的市场流通性影响了代理成本变量与审计委员会设立之间的关系。

表 1 国外研究审计委员会设立动机的主要文献所采用的变量及其研究结论

变量	假设方向	假设是否得到支持			
		Pincus <i>et al.</i> (1989)	Bradbury (1990)	Collier (1993)	Menon and Williams (1994)
规模	+	是	否	是	否
长期负债水平	+	是	否	是	否
董事持股比例	-	是	否	是	否
外部董事比例	+	是	是	是	是
成长性	-	N/T*	否	否	N/T*
董事长和总经理 是否两职合一	+	N/T*	N/T*	否	N/T*

* 表示论文未对所指变量进行检验。

杨忠莲、徐政旦 (2004) 借用上述学者的分析框架对中国上市公司自愿选择设立审计委员会的动机进行了研究，研究结果表明，除公司董事会规模和独立董事比例与公司设立审计委员会可能性之间存在显著的正相关关系外，其他

代理成本变量回归系数均不显著。但 Bradbury (1990) 指出公司设立审计委员会的决策会导致董事会规模和独立董事比例的升高。因此，他们的研究基于股权分散条件下代理理论的分析框架，并没有对中国上市公司设立审计委员会的动机作出合理的解释。

三、理论分析

传统公司治理理论大都基于 Berle 和 Means (1932) 关于现代公司所有权与控制权高度分离的观点，因而早期的大量文献关注的是在两权高度分离下的管理层可能为了自身利益而导致对股东利益造成的损害 (Jensen 和 Meckling, 1976)。但近年来，许多学者的研究发现，世界上大部分国家和地区的公司所有权不是分散而是相对集中 (La porta 等, 1999; Claessens 等, 2000)。Shleifer 和 Vishny (1997) 认为，尽管股权集中能够加强对管理层的监督，但也会导致控股股东“掠夺”中小股东利益的问题。在金字塔结构和交叉持股情况下，控股股东对公司的控制权超过其现金流权，从而产生控股股东侵占中小股东利益的代理问题。当法律对投资者的保护不到位时，这类利益冲突和代理问题更为严重。正如 La porta 等 (1999) 所言，在世界大多数公司中，主要的代理问题是控股股东侵占中小股东利益，而不是管理者损害股东利益。在新兴市场经济国家，由于法律等各种治理机制对中小股东的保护力度不足，或者没有效率，公司所有权与控制权分离所导致的代理问题更多地表现为控股股东与中小股东之间的利益冲突。

在我国，由于最初证券市场设计存在的问题，上市公司股权高度集中。在股市成立后的很长时间内，我国一直采用“审批制”和“额度制”相结合的股票发行上市监管模式。为竞争资源，达到监管部门的上市要求，很多上市公司都是控股股东通过剥离其原有企业非核心资产的模式改制上市。这种制度安排使得上市公司与控股股东之间形成了复杂、密不可分的利益关系。由于对股权流动性限制和基于控制权损失的不可补偿性而产生的公司内部人的抵制，使得控股股东通过转让所有权的方式获得所有权收益的交易成本非常昂贵 (张维迎, 1998; 张宗新、季雷, 2003)，控股股东只有利用其控制权，通过“掠夺”上市公司资源来获得收益。因此，我国上市公司控股股东与中小股东之间必然产生严重的代理冲突⁴。基于上述认识，我们将从控股股东与中小股东之间代理冲突的角度分析审计委员会设立的动机。

⁴ 近年来，国内大量的研究从不同的角度为控股股东“掠夺”中小股东的利益的行为提供了经验证据，如陈信元、叶鹏飞、陈冬华，2003；冯根福、吴林江，2001；李善民、陈玉罡，2002；李增泉、余谦、王晓坤，2005；唐清泉、罗党论、王莉，2005 等。

审计委员会作为一项监督机制,其职责主要在于全面监控公司会计信息质量。尽管没有职权直接阻止控股股东对中小股东利益进行“掠夺”的行为,但可以通过提高对这类交易的反映和对外披露质量,引发市场和证券监管机构的关注,从而加强对控股股东行为的监督。此外,国内外的相关研究表明,控股股东实施“掠夺”行为的同时,往往伴随着对会计信息的操纵。Bertrand等(2002)指出,控股股东的“掠夺”效应降低了整个经济的透明度。Fan和T. J. Wong(2002)在研究股权结构与会计盈余信息含量时指出,控股股东与其他投资者的代理冲突,使得控股股东出于自身利益报告会计信息,导致盈余信息缺乏可靠性;同时,控股股东对其“掠夺”行为的掩盖,降低了盈余信息的信息含量。洪剑峭、方军雄(2005)发现当上市公司向其关联方的商品销售达到较大比重时,其报告的会计盈余数据具有较低的价值相关性。叶康涛(2005)也指出,控股股东对上市公司的资金占用会降低会计业绩与管理层报酬的相关性。因此,设立审计委员会提高会计信息的反映和对外披露质量将可能会增加控股股东“掠夺”行为的成本,从而对其此类行为起到一定的抑制作用⁵。

对于控股股东而言,若审计委员会可能增加其“掠夺”行为的成本,它将运用其控制权阻止公司设立审计委员会,并且控股股东“掠夺”中小股东利益的动机越大,其越可能阻止审计委员会的设立⁶。控股股东是否能有效阻止公司设立审计委员会取决于其对公司董事会决策的控制力。一般而言,持股比例是反映股东对公司控制力的最为直接的变量,控股股东持股比例越高,对公司的控制力也越强,公司设立审计委员会的可能性越小。由此我们假设:

⁵ 关于审计委员会设立后的监督效率,我们从盈余管理的角度检验了审计委员会对企业管理当局盈余管理行为的制约作用,我们的研究表明,审计委员会的设立与企业的操控性应计的绝对值呈负相关关系,说明审计委员会在一定程度上还是能够限制管理当局的盈余管理行为的(夏文贤、陈汉文,2005)。此外,我们从审计师变更,对审计委员会提高审计质量的效率进行了检验,结果表明审计委员会能有效减少非正常的审计师变更;从审计收费的角度间接发现审计委员会能改善公司的内部控制(夏文贤、陈汉文,2006)。但由于篇幅的问题,在本文中未提供上述研究过程和结果。

⁶ 匿名审稿人指出,股权集中度存在利益趋同和侵占两种效应,对审计委员会设立也应存在两种不同的影响。在前一效应下,股权集中度与审计委员会的设立概率之间呈正相关关系,在后一效应下,二者之间呈负相关关系。但是,由于我国上市公司的特殊性,这些企业均由国企改制而成,股权集中度高,且与政府具有天然的联系。由于地方政府存在利用他们控制的企业竞争资源的动机,使得在我国上市公司中,“掏空”现象比较明显(李增泉等,2005;原红旗、李海建,2005),因此,股权集中度的区间效应不明显。我们也分区进行了检验,但结果均不显著,这表明股权集中度对审计委员会设立的影响不存在区间效应。

H1a：控股股东持股比例与上市公司设立审计委员会的可能性之间呈负相关关系。

持股比例与控股股东对公司控制力之间并不呈完全的线形关系。股权的构成特征，如股权的分散程度，非流通股股东的持股情况等，也是控股股东对公司控制力的重要影响因素。因此，控股股东持股比例与上市公司设立审计委员会的可能性之间的关系并不能完整体现控股股东控制力与上市公司设立审计委员会的可能性之间的关系。考虑到，当控股股东持股比例超过50%，也即对公司实现绝对控股时，控股股东对上市公司的控制力受到股权构成特征等非持股比例因素的影响较少。为了进一步检查控股股东的控制力与上市公司设立审计委员会的可能性之间的关系，可以检验是否存在控股股东与上市公司设立审计委员会之间的关系。为此，我们假设：

H1b：存在绝对控股股东的上市公司设立审计委员会的可能性显著降低。

由于我国上市公司基本由国企改制而来，因此，我国的上市公司大部分由政府控股。政府放权让利的改革，使得各级政府具有利用控股的上市公司实现自身目标的动机和能力。因此，就股权性质而言，控股股东为政府或国家时，政府作为剩余收益的所有者，兼具“运动员”和“裁判员”的角色，自然会利用手中行政权力为企业提供更多的保护，保证企业不会在市场竞争中淘汰出局，为企业提供隐性担保。其“裁判员”的角色同时为其利用职权“掠夺”上市公司资源提供了便利。另一方面，在国有企业中，企业事实上的控制权是掌握在企业官僚手中。这些官僚拥有绝对集中的控制权，但却不拥有任何有意义的现金流权利，因为，从理论上，企业的这些现金流的所有权是归属于国家全体纳税人的（Shleifer 和 Vishny, 1997）。因此，企业官僚们的行为将不以企业本身的利益为依归，他们的经验目标更大程度上是政治性的，而这与社会福利目标可能完全不相干（Shapiro 和 Willig, 1990；Boycko 等，1996；Shleifer 和 Vishny, 1994）。

关于非国有企业或民营企业，设立审计委员会的动机可从财产权力的角度分析，存在两种推论：其一，如果存在比较有效的财产权利保护制度，但由于国有（集体）财产的特殊性质，私人比国家更关心自己的财产，则非国有/民营上市公司将比国有上市公司具有更好的运作绩效或治理机制，存在设立审计委员会的动机；其二，如果财产权利保护机制缺乏，由于私人控股股东比国家更有激励去侵占非控股股东的财产（利益）或把公司财产据为己有，则非国有/民营上市公司将比非民营控股上市公司具有较差的运作绩效或治理机制，缺乏设立审计委员会的动机。然而，实证研究表明，我国民营上市公司盈利能力和公司治理状况总体上看比非民营上市公司差，我国股东权利保护机制极度缺乏（上海证券交易所课题组，2005）。因此，从我国现有的制度环境出发，

在缺乏产权保护的情况下，控股股权为非国有股时，股权的所有者既拥有控制权也拥有现金流权，其从上市公司“掠夺”的资源直接归其私人所有。因此，非国有控股股东具有更强的“掠夺”动机。由此我们提出假设：

H1c：控股股东为非国有股与上市公司设立审计委员会的可能性负相关。

如果控股股东侵占了公司的利益，意味着公司的其他非控股股东的利益会受到损害。不同类型的股东会采取相应的措施保护自己的利益。对于流通股股东，由于持股比例低和可流通性，他们将采取“用脚投票”的方式。对于非控股大股东，由于对其股权转让的限制或转让成本过高，他们有动机对控股股东的“掠夺”行为进行抵制和监督。Pagano 和 Roell (1998)，以及 Bennedsen 和 Wolfenzon (2000) 认为大股东之间的相互监督和制衡可以控制私人利益。陈晓、王琨 (2005) 探讨了大股东之间相互制约的关系对关联交易的影响。他们的研究发现，关联交易的发生规模与股权集中度显著正相关，但存在能对控股股东具有制衡作用的大股东时，发生关联交易的可能性降低，并且大股东之间的制衡能力越强，发生关联交易的可能性越低，金额越小。唐清泉等 (2005) 也发现非控股股东的存在对控股股东的隧道挖掘行为起到制衡的作用。非控股股东出于自身经济利益的驱动对控股股东的制衡，势必会推动公司完善各种监督机制。审计委员会作为一项被证券监管机构认为有效的监督机制，非控股股东将会积极推动公司董事会采用。由此，可以认为非控股大股东对控股股东的制衡和监督可以推动公司设立审计委员会，并且，其制衡动机和能力越强，公司设立审计委员会的可能性越大。

从持股比例看，非控股大股东持股比例越高，其制衡的能力越强，因此，可以假设：

H2：非控股大股东持股比例与公司设立审计委员会的可能性正相关。

四、研究设计

(一) 变量与模型

1、审计委员会设立情况变量 (A_c)： $A_c = 1$ 代表上市公司已设立审计委员会；否则 $A_c = 0$ 。

2、股权特征变量

本文以第一大股东为公司的控股股东。由于我国上市公司股权高度集中，主要集中在前十大股东，因此，我们以第二至第十大股东为非控股大股东。我们从绝对和相对两个层面考察控股股东与非控股股东之间的持股比例关系对公司设立审计委员会的影响。此外，我们认为从股权制衡角度看，非控股股东中第二大股东作用最为重要，因此，我们也考察了第二大股东持股比例与公司设立审计委员会之间的关系。相关变量如下：

- (1) *First*: 第一大股东持股比例;
- (2) *First50*: 若第一大股东持股比例大于 50%, *First50* 取 1, 否则取 0;
- (3) *Fifty*: 若第一大股东为非国有股, *fifty* 取 1, 否则取 0;
- (4) *Oc*: 第二至第十大非控股股东持股比例之和;
- (5) *Reloc*: 非控股股东相对第一大股东持股比例, 等于 *Oc* 除以 *First*;
- (6) *Second*: 第二大股东持股比例;
- (7) *Secfir*: 第二大股东相对第一大股东持股比例, 等于 *Second* 除以 *First*。

3、控制变量

除受上述大股东股权特征变量外, 还存在其他因素影响审计委员会的设立。为考察大股东股权特征对审计委员会设立的影响, 还必须控制可能对审计委员会的设立产生影响的其他因素。关于审计委员会的相关研究表明, 公司规模、成长性、长期负债水平、董事会中独立董事比例、董事长与总经理是否两职合一都会影响审计委员会的设立和组成 (Bradbury, 1990; Collier, 1993; Menon 及 Williams, 1994; Collier 及 Gregory, 1999; Daniel 及 Stuart, 2000; Klein, 2002)⁷。为此, 引入以下控制变量:

- (1) *Asset*: 公司规模, 以公司总资产的自然对数反映;
- (2) *Leverage*: 长期负债比例, 公司长期负债合计除以总资产;
- (3) *Plural*: 虚拟变量, *Plural* = 1 代表公司董事长与总经理两职合一; 否则, *Plural* = 0;
- (4) *Growth*: 公司成长性, 以考虑非流通因素的总市值⁸除以总资产账面价值进行计算;
- (5) *Indirrato*: 董事会中独立董事的比例。

本文采用 Logit 回归模型考察股权特征对审计委员会设立的影响, 基于上述变量, 一般回归模型如下:

$$Ac = \alpha + \beta_1 Ownership + \beta_2 Idirrato + \beta_3 Asset + \beta_4 Leverage + \beta_5 Plural + \beta_6 Growth + \varepsilon$$

⁷ 一般而言, 公司规模越大受公众关注的程度越高, 其设立审计委员会的可能性越大; 成长性高的公司需要灵活、快速的决策体系, 其设立审计委员会的可能性相对较低; 长期负债水平高的公司, 其潜在风险大, 其设立审计委员会的可能性较大; 由于审计委员会由独立董事主导, 独立董事比例提高会增加公司设立审计委员会的可能性; 董事长和总经理两职合一加强了控股股东和管理层对公司的控制, 其设立审计委员会的可能性降低。

⁸ 考虑非流通因素的总市值 = A 股前日收盘价 × A 股前日总股数 + B 股前日收盘价 × B 股前日总股数 × (前日美元对人民币比价 / 前日港元对人民币比价) + H 股前日收盘价 × H 股前日总股数 × 前日港元对人民币比价 + (总股本 - A 股前日总股数 - B 股前日总股数 - H 股前日总股数) × 该股票当年的每股净资产。

其中 Ownership 表示股权特征变量，将上述定义的具体股权特征变量根据研究目的和相互间的相关程度单独或联合进入模型。

(二) 样本选择与数据特征

Kalbers 和 Fogarty (1998) 在运用组织理论对审计委员会进行考察时指出，审计委员会作为一种控制性结构，会引发公司间的扩散性互相模仿，并发展成为一般性社会形式。考虑公司会相互模仿建立审计委员会这一因素，我们以 2002 年在深圳和上海证券交易所上市的所有公司为总体样本。这是因为 2002 年是《公司治理准则》颁布实施的第一年，并且根据我们的统计，在 2002 年之前很少数的公司在其年报中披露已设立审计委员会。由于我们主要考察股权集中条件下，股权结构与审计委员会设立之间的关系，并且以第一大股东为控股股东，因此，我们剔除了第一大股东持股比例小于 10% 的公司样本。此外，考虑到金融类公司对控制结构有更高要求这一行业因素，本文也予以剔除。在此基础上，剔除数据不完整公司样本，最后获得的有效样本为 1,046 个。

用于计算所定义变量的数据，除关于公司是否设立审计委员会的情况来自各公司所披露的年报，其他数据来自 CCER 数据库。在我们的样本公司中，设立审计委员会的样本公司 277 家，未设立的为 769 家。样本各变量的描述性统计特征见表 2 和表 3，表 4 给出了解释变量之间的 Spearman 相关系数。

表 2 连续性变量描述性统计

Variable	Mean	Median	Std. Dev.	Maximum	Minimum
<i>First</i>	0.4418	0.4362	0.1700	0.8500	0.1004
<i>Oc</i>	0.1751	0.1480	0.1357	0.5935	0.0061
<i>Reloc</i>	0.5838	0.3326	0.6180	2.8625	0.0088
<i>Second</i>	0.0879	0.0553	0.0855	0.4250	0.0010
<i>Secfir</i>	0.2786	0.1418	0.2975	1.0000	0.0014
<i>Asset</i>	21.0148	20.9412	0.9148	26.6324	17.5534
<i>Growth</i>	1.0187	0.8881	0.8161	21.1341	-0.6870
<i>Indirrato</i>	0.2365	0.2222	0.0837	0.6667	0.0000
<i>Leverage</i>	0.0638	0.0256	0.1186	2.5526	0.0000

First：第一大股东持股比例；**Oc**：第二至第十大非控股股东持股比例之和；**Reloc**：非控股股东相对第一大股东持股比例，等于 *Oc* 除以 *First*；**Second**：第二大股东持股比例；**Secfir**：第二大股东相对第一大股东持股比例，等于 *Second* 除以 *First*；**Asset**：公司规模，以公司总资产的自然对数反映；**Growth**：公司成长性，以考虑非流通因素的总市值除以总资产账面价值进行计算；**Indirrato**：董事会中独立董事的比例；**Leverage**：长期负债比例，公司长期负债合计除以总资产。

表 3 虚拟变量描述性统计

变量	Obs.	取值为 1 的公司	
		公司家数	占样本总数的比重
<i>Ac</i>	1046	277	26.48%
<i>First50</i>	1046	426	40.73%
<i>Firty</i>	1046	264	25.24%
<i>Plural</i>	1046	107	10.23%

Ac：若上市公司已设立审计委员会 *Ac* 取 1，否则取 0；*First50*：若第一大股东持股比例大于 50%，*First50* 取 1，否则取 0；*Firty*：若第一大股东为非国有股，*firty* 取 1，否则取 0；*Plural*：若公司董事长与总经理两职合一，*Plural* 取 1，否则取 0。

综合而言，我国上市公司股权高度集中，第一大股东持股比例均值和中位数都远超过第二至第十大股东持股比例之和的均值和中位数，因此我们将第一大股东视为控股股东，之后的股东为非控股股东的分类是可以接受的。在表 4 中可以看到，*Oc* 与 *Second* 高度相关，它们之间的相关系数为 0.924，这说明非控股股东中，第二大股东的作用极为突出，基本可以代表非控股股东。

五、实证结果

(一) 检验假设 1

表 5 是关于利用 *Logit* 多元回归分析对假设 1 进行检验的结果。从持股比例看，模型 1 中第一大股东的持股比例与审计委员会的设立负相关，但并不显著。模型 2 中，变量 *First50* 系数为负，对应的 P 值为 0.080，这说明当控股股东的比例达到可以对公司实现绝对控制时，公司设立审计委员会的可能性显著下降。这与 H1b 的预测结果基本一致。受到股权构成等因素的影响，持股比例与审计委员会的设立负相关关系并不显著，但存在绝对控股股东的上市公司其设立审计委员会的可能性显著降低。这表明控股股东存在“掠夺”公司的动机，对公司具有一定的控制力时，其可能阻止公司设立对其可能产生监督作用的治理机制。从持股性质看，变量 *Firty* 在模型 1 和模型 2 中的系数均为负，并在 1% 水平上显著，这说明控股股东性质为非国有股时，公司设立审计委员会的可能性显著降低。这与 H1c 的预测结果一致。这表明，上市公司的非国有股东具有更强的“掠夺”动机。控制变量中，*Indirrato* 与审计委员会的设立显著正相关。这其中原因可能是，我国公司治理准则要求独立董事必须在审计委员会中占主导地位，公司设立审计委员会的决策导致公司聘用了更多的独立董事。此外，公司规模变量也与审计委员会的设立正相关，这与国外相关研究的结论基本一致。

表 4 解释变量 spearman 相关系数矩阵

	<i>First</i>	<i>First50</i>	<i>Fifty</i>	<i>Oc</i>	<i>Reloc</i>	<i>Second</i>	<i>Secfr</i>	<i>Asset</i>	<i>Growth</i>	<i>Indirrato</i>	<i>Leverage</i>	<i>Plural</i>
<i>First</i>	1.000	0.851	-0.348	-0.721	-0.863	-0.610	-0.779	0.196	-0.109	0.033	0.008	-0.041
p-value		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.286	0.802	0.185
<i>First50</i>		1.000	-0.262	-0.656	-0.744	-0.591	-0.698	0.170	-0.083	0.046	0.033	-0.023
p-value			0.000	0.000	0.000	0.000	0.000	0.000	0.007	0.137	0.280	0.458
<i>Fifty</i>			1.000	0.305	0.349	0.272	0.325	-0.164	0.130	0.088	-0.130	0.058
p-value				0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.000	0.061
<i>Oc</i>				1.000	0.963	0.924	0.944	-0.201	0.085	-0.030	0.000	0.029
p-value					0.000	0.000	0.000	0.000	0.006	0.333	0.996	0.356
<i>Reloc</i>					1.000	0.866	0.951	-0.211	0.104	-0.035	-0.004	0.042
p-value						0.000	0.000	0.000	0.001	0.256	0.890	0.177
<i>Second</i>						1.000	0.961	-0.149	0.049	-0.038	0.010	0.038
p-value							0.000	0.000	0.110	0.218	0.738	0.215
<i>Secfr</i>							1.000	-0.171	0.068	-0.045	0.005	0.044
p-value								0.000	0.029	0.146	0.880	0.156
p-value									0.337	0.028	0.880	0.557
<i>Asset</i>								1.000	-0.632	0.011	0.249	0.003
p-value									0.000	0.718	0.000	0.919
<i>Growth</i>									1.000	-0.004	-0.374	0.023
p-value										0.890	0.000	0.459
<i>Indirrato</i>										1.000	0.017	0.046
p-value											0.578	0.133
<i>Leverage</i>											1.000	-0.014
p-value												0.662
<i>Plural</i>												1.000

First：第一大股东持股比例；**First50**：若第一大股东持股比例大于 50%，*First50* 取 1，否则取 0；**Fifty**：若第一大股东为非国有股，*fifty* 取 1，否则取 0；**Oc**：第二至第十大非控股股东持股比例之和；**Reloc**：非控股股东相对第一大股东持股比例，等于 *Oc* 除以 *First*；**Second**：第二大股东持股比例；**Secfr**：第二大股东相对第一大股东持股比例，等于 *Second* 除以 *First*；**Asset**：公司规模，以公司总资产的自然对数反映；**Growth**：公司成长性，以考虑非流通因素的总市值除以总资产账面价值进行计算；**Indirrato**：董事会中独立董事的比例；**Leverage**：长期负债比例，公司长期负债合计除以总资产；**Plural**：虚拟变量，*Plural* = 1 代表公司董事长与总经理两职合一；否则，*Plural* = 0。

表 5 关于假设 1 的 Logit 多元回归分析结果

$$\text{模型: } Ac = \alpha + \beta_1 \text{Controller}^* + \beta_2 \text{Firty} + \beta_3 \text{Indirrato} + \beta_4 \text{Asset} + \beta_5 \text{Leverage} + \beta_6 \text{Plural} + \beta_7 \text{Growth} + \varepsilon$$

Controller 反映第一大股东股权特征。模型 1 中以第一大股东的持股比例 (*First*) 为替代变量, 模型 2 中用第一大股东是否达到绝对控股 (*First50*) 为替代变量。

变量	模型 1		模型 2	
	系数	P 值	系数	P 值
<i>First</i>	-0.672	0.150		
<i>First50</i>			-0.276	0.080
<i>Firty</i>	-0.656	0.001	-0.649	0.001
<i>Growth</i>	-0.018	0.851	-0.013	0.892
<i>Indirrato</i>	5.989	0.000	6.018	0.000
<i>Plural</i>	0.016	0.946	0.020	0.932
<i>Leverage</i> ⁹	-0.243	0.711	-0.206	0.753
<i>Asset</i>	0.201	0.020	0.204	0.018
Constant	-6.890	0.000	-7.155	0.000
Log likelihood	-574.298		-573.769	
Wald chi2	54.2***		54.9***	
Pseudo R2(%)	5.06		5.16	

First: 第一大股东持股比例; **First50**: 若第一大股东持股比例大于 50%, *First50* 取 1, 否则取 0; **Firty**: 若第一大股东为非国有股, *firty* 取 1, 否则取 0; **Growth**: 公司成长性, 以考虑非流通因素的总市值除以总资产账面价值进行计算; **Indirrato**: 董事会中独立董事的比例; **Plural**: 虚拟变量, *Plural* = 1 否则取 0; 代表公司董事长与总经理是否两职合一; **Leverage**: 长期负债比例, 公司长期负债合计除以总资产; **Asset**: 公司规模, 以公司总资产的自然对数反映; **Constant** 为常数项。

*** 模型在 1% 水平上显著。

(二) 检验假设 2

表 5 是关于利用 Logit 多元回归分析对假设 2 进行检验的结果。模型 4 和模型 5 分别从非控股股东绝对和相对持股比例的角度, 检验了股权制衡度与审计委员会设立之间的关系。结果表明, 变量 *Oc* 和 *Reloc* 的系数都为正, 并分别在 5% 和 10% 水平上显著。模型 6 和模型 7 检验了第二大股东的制衡度与审计委员会设立之间的关系。结果表明, 变量 *Second* 和 *Secfir* 的系数都为正, 并在 10% 水平显著。若以持股比例衡量股权制衡度, 经验证据表明, 股权制

⁹ 为控制 *Leverage* 变量样本极端值的影响, 我们按变量值大小排序, 剔除了样本左右两端 1% 的样本 (对假设 2 的检验也采取了系统的处理方法)。

表 6 关于假设 2 的 Logit 多元回归分析结果¹⁰

模型： $Ac = \alpha + \beta \text{Balance}^* + \beta_1 \text{Firty} + \beta_2 \text{Indirrato} + \beta_3 \text{Asset} + \beta_4 \text{Leverage} + \beta_5 \text{Plural} + \beta_6 \text{Growth} + \varepsilon$

*Balance 反映非控股股东的股权特征。模型 4 中以第二大非控股股东持股比例之和 (Oc) 为替代变量；模型 5 中以非控股大股东相对第一大股东持股比例 (Reloc) 为替代变量；模型 6 中以第二大股东持股比例 (Second) 为替代变量；模型 7 中以第二大股东相对第一大股东持股比例 (Secfr) 为替代变量。

变量	模型 4		模型 5		模型 6		模型 7	
	系数	P 值	系数	P 值	系数	P 值	系数	P 值
Oc	1.159	0.040	0.203	0.094	1.587	0.064		
Reloc							0.398	0.109
Second							-0.650	0.001
Secfr							-0.009	0.922
Firty	-0.669	0.000	-0.657	0.001	-0.635	0.001		
Growth	-0.014	0.879	-0.015	0.875	-0.008	0.930		
Indirrato	5.951	0.000	5.958	0.000	5.941	0.000	5.965	0.000
Leverage	-0.294	0.663	-0.279	0.668	-0.247	0.712	-0.254	0.698
Plural	0.023	0.923	0.025	0.916	0.019	0.938	0.020	0.934
Asset	0.200	0.019	0.199	0.020	0.186	0.029	0.193	0.024
Constant	-7.381	0.000	-7.272	0.000	-6.997	0.000	-7.144	0.000
Log likelihood	-573.190		-574.032		-573.623		-574.171	
Wald chi2	54.1***		55.1***		55.9***		54.5***	
Pseudo R2 (%)	4.91		5.05		5.23		5.11	

Oc：第二大非控股股东持股比例之和；Reloc：非控股大股东相对第一大股东持股比例，等于Oc除以Firts；Second：第二大股东持股比例；Secfr：第二大股东相对第一大股东持股比例，等于Second除以Firts；Firty：若第一大股东为非国有股，firty取1，否则取0；Growth：公司成长性，以考虑非流通因素的总市值除以总资产账面价值进行计算；Indirrato：董事会中独立董事的比例；Leverage：长期负债比例，公司长期负债合计除以总资产；Plural：虚拟变量，Plural=1代表公司董事长与总经理两职合一；否则取0；Asset：公司规模，以公司总资产的自然对数反映；Constant为常数项。***模型在1%水平上显著。

¹⁰ 匿名审稿人指出本文主要的实证结果中，变量系数显著性不高，对研究结论的支持力度可能不够。我们认为其中可能的原因在于，受数据的限制，我们无法收集到有关审计委员会特征的数据，进一步提炼我们的样本。随着公司治理信息披露的改善，若能在样本和模型设计中，考虑审计委员会特征的影响，可能会得到更为理想的实证结果。

衡度越高的公司，设立审计委员会的可能性越大，并且第二大股东对控股股东的制衡起主导作用。因此，经验证据支持了假设2的预测，审计委员会的设立与股权制衡度显著正相关。

六、附加测试

从持股比例的角度看，控股股东与非控股股东持股比例是此消彼长的关系。这可能意味着假设1和假设2是一个问题的两个方面，也即若控股股东持股比例与上市公司设立审计委员会的关系负相关，则非控股股东与上市公司设立审计委员会的正相关关系就会同时成立。从持股比例的数量关系来看，这一关系似乎成立，但应强调的是，非控股股东之所以对控股股东存在制衡作用，在于非控股股东所持股权的非流通性。我们在检验假设2过程中，非控股股东指的是前二大至第十大股东，特别是第二大股东，目的主要是将具有制衡作用的非控股股东尽可能限定为非流通股。在第一大股东持股比例具有相同特征的情况下，上市公司前十大非控股股东持股比例也呈现不同的特征，两者的比例不是完全的负向关系。为了进一步检验H1a、b和假设2的相对独立性，我们将反映第一大股东的持股情况的变量放入模型4和模型6中。从表4中可以看出，变量*First*和*Oc*、*Second*的相关系数分别为0.721和0.610，具有高度相关性。为了解决高度相关的变量放入同一模型中产生的多重共线性问题，我们以虚拟变量*First30*¹¹反映第一大股东的持股情况，并将其放入模型4和模型6。检验结果如下：

表7 附加测试回归分析结果

变量	模型 8		模型 9	
	系数	P 值	系数	P 值
<i>Constant</i>	-7.509	0.000	-7.237	0.000
<i>Oc</i>	1.189	0.056		
<i>Second</i>			1.519	0.088
<i>First30</i>	-0.051	0.798	-0.153	0.396
<i>Firty</i>	0.694	0.000	0.687	0.000
<i>Growth</i>	-0.015	0.872	-0.010	0.917
<i>Leverage</i>	-0.305	0.652	-0.275	0.682
<i>Plural</i>	-0.018	0.941	-0.031	0.896
<i>Asset</i>	0.206	0.015	0.200	0.019

¹¹ 若第一大股东持股比例大于30%，*First30*取1，否则取0。一般而言，持股比例达到30%就表明第一大股东实现了相对控股。

表 7 续

变量	模型 8		模型 9	
	系数	P 值	系数	P 值
<i>Indirrato</i>	6.004	0.000	6.004	0.000
Log Likelihood	-574.805		-575.174	
Wald chi2	55.6***		56.8***	
Pseudo R2(%)	5.08		5.19	

Constant 为常数项；*Oc*：第二至第十大非控股股东持股比例之和；*Second*：第二大股东持股比例；*First30*：若第一大股东持股比例大于30%，*First30*取1，否则取0；*Firty*：若第一大股东为非国有股，*firty*取1，否则取0；*Growth*：公司成长性，以考虑非流通因素的总市值除以总资产账面价值进行计算；*Leverage*：长期负债比例，公司长期负债合计除以总资产；*Plural*：虚拟变量，*Plural* = 1 代表公司董事长与总经理两职合一；否则取0；*Asset*：公司规模，以公司总资产的自然对数反映；*Indirrato*：董事会中独立董事的比例。*** 模型在 1% 水平上显著。

模型 8 中变量 *Oc* 的系数为正，对应的 P 值为 0.056；模型 9 中变量 *Second* 的系数也为正，对应的 P 值为 0.088。将反映控股股东持股特征和非控股股东持股比例的变量放入同一模型中，审计委员会的设立与非控股股东的持股比例仍显著正相关。这一结果表明，第一大股东持股比例相对较高时，非控股股东持股比例变化仍表现出显著不同的制衡度。非控股股东对第一大股东的制衡与第一大股东的持股情况具有相对的独立性。

七、研究结论

本文基于控股股东与中小股东代理问题的分析，就股权结构与审计委员会设立之间的关系进行实证研究。研究表明，控股股东持股比例达到绝对控股时，它们会充分运用其对公司的控制力阻止公司设立审计委员会，降低其“掠夺”公司资源行为的成本。控股股东的性质也会对审计委员会的设立产生显著影响。当控股股东为非国有股时，由于其“掠夺”公司资源的动机较强，公司设立审计委员会的可能性显著下降。从股权制衡角度看，非控股股东的制衡度越强，公司设立审计委员会的可能性越高。同时，第二大股东的持股比例与审计委员会的设立也存在显著正相关的关系。这说明第二大股东在非控股股东的制衡作用中起主导作用。

本文从上市公司自愿设立审计委员会的视角，分析了股权结构对公司治理机制选择的影响，对股权结构具体作用机理进行了探讨。总体上，经验证据支持了制衡性的股权结构有利于改善公司监督机制。这一方面丰富了股权结构与公司治理相关理论的内容；另一方面也表明，降低控股股东的持股比例、引入

战略投资者以改善股权结构，推行独立董事制度，重塑董事会的权力结构，是改善我国上市公司治理的正确方向。

参考文献

- 陈汉文、夏文贤、陈秋金. 2004. 上市公司审计委员会：案例分析与模式改进—公司治理、受托责任与审计委员会制度（下）.《财会通讯》第1期，12-15。
- 陈晓、王琨. 2005. 关联交易、公司治理与国有股改革.《经济研究》第4期，77-86。
- 陈信元、陈冬华和朱凯. 2004. 股权结构与公司业绩：文献回顾与未来的研究方向.《中国会计与财务研究》第6卷第4期，41-47。
- 陈信元、叶鹏飞、陈冬华. 2003. 机会主义资产重组与刚性管制.《经济研究》第5期，13-22。
- 冯根福、吴林江. 2001. 我国上市公司并购绩效的实证研究.《经济研究》第1期，54-61。
- 洪剑峭、方军雄. 2005. 关联交易和会计盈余的价值相关性.《中国会计评论》第3卷第1期，87-98。
- 李善民、陈玉罡. 2002. 上市公司兼并与收购的财富效应.《经济研究》第11期，27-35。
- 李增泉、余谦、王晓坤. 2005. 掏空、支持与并购重组.《经济研究》第1期，95-105。
- 上海证券交易所研究. 2005. 中国公司治理报告(2005)：民营上市公司治理. 复旦大学出版社。
- 唐清泉、罗党论、王莉. 2005. 大股东的隧道挖掘与制衡力量—来自中国市场的经验证据.《中国会计评论》第3卷第1期，63-86。
- 夏文贤、陈汉文. 2005. 上市公司审计委员会效率研究：以盈余管理为视角，厦门大学会计系，工作论文。
- 夏文贤、陈汉文. 2006. 审计师变更、审计收费与审计委员会效率.《财会通讯》第2期，1-13。
- 杨忠莲、徐政旦. 2004. 我国公司设立审计委员会动机的实证研究.《审计研究》第1期，19-24。
- 叶康涛. 2005. 关联交易、会计信息有用性与内部代理成本. 香港中文大学公司治理青年论坛论文集。
- 原红旗、李海建. 2005. 配股资金使用与公司业绩.《中国会计评论》第1期，143-160。
- 张维迎. 1998. 控制权损失的不可补偿性与国有企业兼并中的产权障碍.《经济研究》第7期，3-14。
- 张宗新、季雷. 2003. 公司购并利益相关者的利益均衡吗？《经济研究》第6期，30-37。

- Bennedsen, M. and Wolfenzon, D. (2000), 'The Balance of Power in Closely Held Corporations', *Journal of Financial Economics* 58(1/2): 113-139.
- Berle, A. and Means, G. (1932), *The modern corporation and private property*. Macmillan, New York.
- Bertrand, M., Mehta, P., and Kim, J. M. (2002), 'Ferretting out Tunneling: An Application to Indian Business Group', *The Quarterly Journal of Economics* 117(1): 121-148.
- Boycko, Maxim, Shleifer, Andrei, and Vishny, Robert, W. (1996), 'A Theory of Privatization', *The Economic Journal* 106: 309-19.
- Bradbury, M. E. (1990), "The Incentives for Voluntary Audit Committee Formation", *Journal of Accounting and Public Policy* 9(1): 19-36.
- Chow, C. W. (1982), 'The Demand for External Auditing: Size, Debt and Ownership Influences', *Accounting Review* 75: 272-291.
- Claessens, S., Djankov, S., and Lang, L. (2000), 'The Separation of Ownership and Control in East Asian Corporation', *Journal of Financial Economics* 58: 81-112.
- Collier, P. A. (1993), 'Factors Affecting the Voluntary Formation of Audit Committees in Major UK Listed Companies', *Accounting and Business Research* 23 (91A): 421-430.
- Collier, P. A. and Gregory, A. (1999), 'Audit Committee Activity and Agency Costs', *Journal of Accounting and Public Policy* 18: 311-331.
- Daniel N. Deli, and Stuart, L. Gillan (2000), 'On the Demand for Independent and Active Audit Committees', *Journal of Corporate Finance* 64: 427-445.
- Fan, J. P. H. and Wong, T. J. (2002), 'Corporation Ownership Structure and the Informativeness of Accounting Earnings in East Asia', *Journal of Accounting and Economics* 33: 401-425.
- Jensen, M. C. and Meckling, W. H. (1976), 'Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure', *Journal of Financial Economics* 3: 305-360.
- Kalbers, L. P. and Fogarty, T. J. (1998), 'Organization and Economic Explanations of Audit Committee Oversight', *Journal of Managerial Issues* 10 (Summer): 129-150.
- Klein, A. (2002), 'Audit Committee, Board of Director Characteristics, and Earnings Management', *Journal of Accounting and Economics* 33: 375-400.
- La-porta, R., Lopez-de-silanes, F., and Shleifer, A. (1999), 'Corporate Ownership Around the World', *Journal of Finance* 54: 471-518.
- Menon, K. and Williams, J. D. (1994), 'The Use of Audit Committees for Monitoring', *Journal of Accounting and Public Policy* 13 (Summer): 121-139.
- Pagano, M. and Roell, A. (1998), 'The Choice of Stock Ownership Structure: Agency Costs, Monitoring, and the Decision to Go Public', *Quarterly Journal of Economics* 113(1): 187-225.

- Pincus, K., Rusbarsky, M., and Wong, J. (1989), 'Voluntary Formation of Audit Committees Among NASDAQ Firms', *Journal of Accounting and Public Policy* 8(4): 239-265.
- Shapiro, Carl, and Willig, Robert D. (1990), 'Economic Rationales for the Scope of Privatization', in *Political Economy of Public Sector Reform and Privatization* (ed. E. N. Suleiman and J. Waterbury) Westview Press, London, pp. 55-87.
- Shleifer, A. and Vishny, R. (1994), 'Politicians and Firms,' *Quarterly Journal of Economics* 109(4): 995-1025.
- Shleifer, A. and Vishny, R. (1997), 'A Survey of Corporation Governance', *Journal of Finance* 52: 737-837.

OWNERSHIP STRUCTURE AND AUDIT COMMITTEE FORMATION OF LISTED COMPANIES

Wenxian Xia¹ and Hanwen Chen²

ABSTRACT

We investigate the relation between ownership structure and monitoring mechanisms from the perspective of the formation of voluntary audit committees based on agency conflict between the controlling shareholder and minority shareholders. We find that controlling shareholders are more likely to use their power to hold up the formation of audit committees when they have absolute control and incentive to expropriate the minority shareholders. Checks and balances within a firm's ownership structure can improve corporate governance. The greater the number of shares held by non-controlling shareholders, the higher the likelihood that an audit committee will be formed. Moreover, we find the likelihood of an audit committee being formed declines significantly when the shares held by the largest shareholder are non-state-owned shares.

Key Words: Audit Committee; Ownership Structure; Form Voluntarily

I. INTRODUCTION

Like listed companies in other emerging markets, China's listed companies display a highly concentrated ownership structure. Although such a structure may alleviate free rider problems, the costs may also be very high when a company is diffusely held. When the voting rights of the largest shareholders exceed cash flow rights, they have an incentive to expropriate the wealth of other shareholders (Shleifer & Vishny, 1997).

In the early period of stock market development, China for a long time used a quota system when issuing new shares. To gain resources and satisfy the IPO requirements, the controlling shareholders of most companies listed in the stock markets separate out non-core assets of the original organization. This arrangement generates a complex and inseparable relationship between listed companies and the

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controlling shareholders. The highly concentrated ownership structure in China's listed firms causes an agency conflict whereby the controlling shareholder expropriates non-controlling shareholders. This entrenchment behavior seriously damages minority shareholders' rights, misleads their investment decision making, and discourages investors from investing. Furthermore, such behavior also affects the efficiency of resource allocation in China's capital market. Although the securities regulatory department has recently tried to solve these problems by strengthening corporate governance and improving regulations, the problems are still not being effectively controlled. Measures to improve external regulations and to strengthen governmental regulations have also been ineffective because they are unable to change the concentrated ownership structure itself of listed companies. There is also a conflict between listed companies and controlling shareholders caused by the highly concentrated ownership structure and the new issuing arrangement. After realizing the problems in listed companies in China, many studies have extensively investigated the relationship between ownership structure and corporation governance from different perspectives.³ Most studies concern the relationship between ownership structure, firm performance, and transaction behavior directly from the viewpoint of the nature of ownership structure, shareholding proportion, and so on. However, previous research has not paid sufficient attention to the impact of ownership structure on the choice and implementation of corporate governance systems.

The audit committee is a special committee under the board of directors. The earliest concept of an audit committee originated in the US. The initial goal of establishing such a committee was to give support to external audits and enhance the quality of financial reporting. With its development, the audit committee has become an independent organization that can comprehensively evaluate and supervise the financial control and risk control systems through internal and external audits, as well as investigate special items in the listed companies of Anglo-Saxon countries. An audit committee can participate in a company's decision-making, effectively supervise the controller (manager or the largest shareholder), guarantee the comprehensive implementation and relief of accountability, and maintain all shareholders' benefits (Chen Han-wen *et al.*, 2004). According to China's code of corporation governance, listed companies may voluntarily set up audit committees by the decision of a general meeting of shareholders. The purpose of our paper is to investigate the influence of ownership structure on the choice and implementation of corporate governance mechanisms from the perspective of the voluntary formation of audit committees. The results demonstrate a negative relationship between the percentage of ownership by the controlling shareholder and the likelihood an audit committee will be formed in a listed company. If a firm has large but non-controlling shareholders who can check the controlling shareholder more effectively,

³ According to the investigation of Chen Xinyuan, Chen Donghua, and Zhu Kai (2004), 41 papers on ownership structure and corporate government were published in the top nine economic and managerial journals in China from 1993 to 2003.

the company is more likely to establish an audit committee. This indicates that large but non-controlling shareholders have an incentive to improve internal corporate governance and oversee the controlling shareholder to protect their own interests. In addition, the nature of the shares held by the largest shareholder also has an important influence on the likelihood that an audit committee will be voluntarily formed.

The rest of the article is organized as follows. Section II covers the literature review, while Section III analyzes the motivation of listed companies for establishing an audit committee, and gives two hypotheses. Section IV describes the research design and the sample; Section V presents the empirical test results; and Section VI is an additional test. Finally, the last section concludes the paper.

II. LITERATURE REVIEW

Foreign studies have comprehensively analyzed the factors affecting the formation of audit committees based on the framework of agent theory under the condition of a diffused ownership structure. The initial goal of establishing an audit committee is to help both internal and external audits and hence improve the quality of accounting information. Because it is difficult to observe the relationship between an audit committee and an internal audit, more empirical research is needed on audit committees from the view of an external audit. Chow (1982) suggests that a company is more likely to hire an external audit firm when agency conflict is intense. Therefore, the higher the agency costs, the more likely the company will voluntarily establish an audit committee to reduce the information asymmetry between client and agent. Pincus *et al.* (1989), Menon and Williams (1994), Bradbury (1990), and Collier (1993) investigate the relationship between agency costs and the likelihood an audit committee will be voluntarily formed using many different variables to proxy agency costs; to this end, they use samples of OTC in the US and samples from New Zealand and Britain, respectively.

The variables used to proxy agency costs and the conclusions of these studies are shown in Table 1. From this table, we can see there are no consistent conclusions. Collier and Gregory (1999) believe that differences in company size, ownership concentration, and market liquidity in different security markets affect the relationship between proxy variables for agency costs and the formation of audit committees.

Yang and Xu (2004) analyze the motivation for voluntarily establishing an audit committee in Chinese listed companies using the above analytical framework; their results show that the coefficients of all variables that proxy agency costs in the regression are not significant, with two exceptions: (1) the variable of scale, and (2) the variable of the shareholding proportion held by an independent director. However, Bradbury (1990) points out that the decision to set up an audit committee may lead to a larger board and a higher percentage of independent directors. Therefore, the research of Yang and Xu (2004) based on a diffused ownership structure may not give a reasonable explanation for the motivation for establishing audit committees in Chinese listed companies.

Table 1 Variables and Conclusions of Previous Articles on Motivations for Audit Committee Formation

Variable	Pred. sign	Whether the hypotheses are accepted			
		Pincus <i>et al.</i> (1989)	Bradbury (1990)	Collier (1993)	Menon and Williams (1994)
Size	+	YES	NO	YES	NO
Level of long-term debt	+	YES	NO	YES	NO
Shareholding proportion held by directors	-	YES	NO	YES	NO
Shareholding proportion held by outside director	+	YES	YES	YES	YES
Growth	-	N/T*	NO	NO	N/T*
Whether the board chairman and top manager are the same person	+	N/T*	N/T*	NO	N/T*

* No test

III. THEORETICAL ANALYSIS

Most traditional corporation governance theories are based on the view that ownership and control are separated in modern companies, as put forward by Berle & Means (1932). Therefore, previous studies pay more attention to the problem of managers expropriating outside shareholders for their private benefit when ownership and control are separated (Jensen & Meckling, 1976). However, many recent studies find that the ownership structure of companies in most countries and regions is not diffused but is instead very concentrated (La Porta *et al.*, 1999; Claessens *et al.*, 2000). Shleifer and Vishny (1997) suggest that high ownership concentration may cause the controlling shareholder to expropriate minority shareholders, even though it may help to improve the monitoring of management. In the case of pyramid ownership and intersecting ownership structures, the agency problem of controlling shareholders entrenching themselves at the expense of minority shareholders' interests may exist if the voting rights of controlling shareholders exceed their cash flow rights. When the law cannot protect the interests of investors effectively, this kind of agency conflict becomes more serious. According to La Porta *et al.* (1999), the primary agency problem in most companies is not that management impairs the interests of shareholders, but that the controlling shareholders expropriate minority shareholders. In emerging markets, because corporate governance mechanisms such as law cannot protect the minority shareholders' interests effectively, the agency problem caused by the separation of ownership and control rights often displays an agency conflict between the controlling shareholder and minority shareholders.

Because of the arrangement at the beginning of the securities market in China, the ownership structure of China's listed firms is very concentrated. After setting up the stock market, China adopted an approval system and a quota system for the issuing of new shares, which was in effect for a long time. To acquire more resources and satisfy the requirements of the government, the shareholders of many companies listed in the securities market separated out the non-core assets of the company. This arrangement has led to a complex and close relationship between the listed company and the controlling shareholder. Because of restrictions on trading, the transaction costs of the exchange of ownership of controlling shareholders is very high (Zhang, 1998; Zhang and Ji, 2003). Because the controlling shareholders use their control rights to expropriate minority shareholders for their own benefit, there exists a serious conflict between the controlling shareholder and minority shareholders in Chinese listed companies. We analyze the motivation for setting up an audit committee from the viewpoint of agency conflict between controlling and minority shareholders based on the above analysis.

As a monitoring system, the primary goal of an audit committee is to monitor the quality of accounting information. Although the committee does not have the right to prevent a controlling shareholder from expropriating minority shareholders, it can strengthen its monitoring by disclosing more information and improving disclosure quality. Furthermore, many previous studies find that the controlling shareholder's entrenchment is often associated with earnings manipulation. Bertrand *et al.* (2002) find that entrenchment behaviors decrease the transparency of the whole economy. Fan and Wong (2002) investigate the relationship between ownership structure and earnings, and find that the agency conflict between controlling shareholders and minority shareholders causes the former to report accounting information in their own interests, while decreasing the reliability of accounting information. At the same time, controlling shareholders may manipulate accounting information to hide their expropriation activities. According to Hong and Fang (2005), the value relevance of earnings is low when listed companies are subjected to more related-party transactions. Ye (2005) also finds that a controlling shareholder's embezzlement of a listed company's funds decreases the relevance between earnings and management compensation. Therefore, the formation of an audit committee in listed companies increases the costs of a controlling shareholder's entrenchment actions by improving disclosure quality and placing restrictions on the controlling shareholder.⁴

⁴ As to the supervision efficiency of audit committees, we test the role of the audit committee in restricting management to the managing of earnings. We find a negative relationship between the formation of an audit committee and the absolute value of discretionary accrual. On the basis of the empirical results, we think that an audit committee can restrict the earnings management of the management of listed corporations to a certain extent (Xia and Chen, 2005). Furthermore, we test the efficiency of an audit committee in improving audit quality and find that an audit committee can reduce non-natural audit changes. Through audit charges, we find that an audit committee can improve the internal control of listed corporations (Xia and Chen, 2006). Due to limited space, we do not provide those research processes and results in this paper.

Since an audit committee increases the controlling shareholder's entrenchment costs, a controlling shareholder will seek to prevent a listed company from establishing an audit committee. The stronger the motivation of the controlling shareholder to become entrenched in a listed company, the more likely it is that the controlling shareholder will hold up the establishment of an audit committee.⁵ Whether the controlling shareholder can prevent the formation of an audit committee lies in whether she can control the decision making of the board. Generally speaking, the shareholding proportion of ownership denotes the control power of the controlling shareholder. The greater the shareholding proportion the controlling shareholder holds, the stronger the controlling shareholder's control power will be, and the less likely it is an audit committee will be formed. Therefore, we hypothesize:

H1a: There is a negative relationship between the shareholding proportion of the largest shareholder and the likelihood of the formation of an audit committee in listed companies.

The relationship between the ownership percentage of the controlling shareholder and the likelihood an audit committee will be formed may not be linear. Other ownership characteristics, such as ownership dispersion and non-controlling shareholding, also affect the power of the controlling shareholder. Therefore, ownership percentage does not fully reflect the influence of the controlling shareholder on the formation of an audit committee. When the shareholding proportion of the controlling shareholder exceeds 50 per cent, which means absolute control, the controlling shareholder's control power over listed corporations is influenced less by factors other than shareholding proportion. In order to test the relationship between the shareholding proportion of the controlling shareholder in listed corporations and the likelihood an audit committee will be formed, we test the relationship between absolute control of the controlling shareholder and the likelihood of audit committee formation. Therefore, we hypothesize:

H1b: The likelihood that an audit committee will be formed is lower in companies that have an absolute controlling shareholder.

Since most listed firms have been transformed from state-owned corporations in China, their largest shareholder is often the government. The reform of transferring

⁵ Anonymous referees note that ownership convergence has two effects: benefit identity and plunder. Those two effects also have different implications for the formation of an audit committee. Benefit identity will cause a positive relationship between formation of an audit committee and ownership convergence, while the plunder effect will cause a negative relationship between the two. However, because most listed companies in China come from state corporations, ownership convergence has a great many reasons with government. Because local government makes use of listed corporations, plunder actions are familiar in China (Li *et al.*, 2005; Yuan, 2005). Therefore, regional effects are not obvious. We test our sample in different regions and find no difference. The empirical results show that ownership convergence has no regional effects on audit committees.

the central government's power to local government has motivated local governments to use controlled listed companies to achieve their own targets. Governments play the role of both athlete and referee. Therefore, they make full use of their authority to provide greater protection to local listed companies and guarantee they will not fail in market competition. The government's role of referee also allows it to entrench itself in a listed company more easily. On the other hand, the practical control power of a company is in the hands of government bureaucrats. Although these bureaucrats have absolute control rights, they have no cash flow rights. In theory, the ownership of cash flow belongs to the whole of taxpayers in the country (Shleifer & Vishny, 1997). Therefore, government bureaucrats will not act in the interests of a company. Their main goal is political and may have nothing to do with social benefits (Shapiro & Willig, 1990; Boycko *et al.*, 1996; Shleifer & Vishny, 1994).

As for non-state-owned companies, the motivation to set up an audit committee can be analyzed from the perspective of property rights. Two deductions can be made: First, if the protection of property rights is effective, the nature of state-owned property will differ from that of non-state-owned property. The owners of private companies will take better care of their property than owners of state-owned companies. The non-state-owned companies, or private companies, will have better firm performance and corporate governance and have greater motivation to form an audit committee. Second, if the protection of property rights is ineffective, the largest shareholders of private companies will have more incentive to expropriate minority shareholders than will the largest shareholders of state-owned companies. The non-state-owned companies, or private companies, will have poorer firm performance and corporate governance, and will have no incentive to form an audit committee. However, empirical studies show that the firm performance and the corporate governance of private companies are worse than those of non-private corporations in China. Investor protection is very poor in China (Shanghai Securities Exchange Task, 2005). Therefore, non-state-owned controlling shareholders can expropriate minority shareholders through both voting rights and cash flow rights, and so have greater incentive to expropriate minority shareholders. Thus, we hypothesize:

H1c: There is a negative relationship between a non-state-owned controlling shareholder and the likelihood an audit committee will be formed in China's listed firms.

If the controlling shareholders expropriate minority shareholders, the benefits of the minority shareholders will be impaired. Different kinds of shareholders will take different actions to protect their benefits. Tradable shareholders can vote with their feet because their shareholding proportion is low and the shares can easily be sold. Blockholders other than the controlling shareholder have an incentive to monitor the actions of the controlling shareholder because of the high costs or restrictions on exchanging ownership. Pagano and Roell (1998) and Bennedsen and Wolfenzon (2000) suggest that ownership checks and balances among block share-

holders restrain the private benefits of control. Chen and Wang (2005) find a positive relationship between ownership concentration and related party transactions. Furthermore, they find that when there are large but non-controlling shareholders who can bargain with the controlling shareholder, the possibility of related-party transactions decreases. The more ownership checks the non-controlling shareholders have, the less the possibility of related-party transactions and the less the scale of trade. Tang (2005) also finds that non-controlling shareholders can restrict a controlling shareholder's entrenchment behaviors. The ownership checks and balances of non-controlling shareholders can thus improve corporate governance. Since an audit committee is considered an effective monitor mechanism by the securities regulation department, non-controlling shareholders will have an incentive to establish one. Therefore, the restriction and monitoring of non-controlling shareholders will drive a company to form an audit committee. The more power the non-controlling shareholders have, the more likely the company will be to form an audit committee. From the perspective of shareholding proportion, the more shares held by non-controlling shareholders, the stronger the ownership checks and balances. Thus we hypothesize:

H2: There is a negative relationship between the shareholding proportion of non-controlling shareholders and the likelihood an audit committee will be formed in listed corporations.

IV. RESEARCH DESIGN

4.1. Variables and model

4.1.1 (Ac): Formation of an audit committee; $Ac = 1$ if a company has an audit committee, and 0 otherwise.

4.1.2 Nature of proxy ownership variables

The largest shareholder is defined as the controlling shareholder. Because ownership is very concentrated in China's listed firms, the second to tenth largest shareholders are defined as non-controlling shareholders. We test the influence on the formation of an audit committee from the absolute and relative shareholding proportions of the controlling and non-controlling shareholders. Furthermore, we believe the second largest shareholder plays a major role in ownership checks and balances. Therefore, we test the relationship between the shareholding proportion of the second largest shareholder and the likelihood of the formation of an audit committee. Variables are defined as follows:

- (1) *First*: the shareholding proportion of the largest shareholder.
- (2) *First50*: dummy variable; takes the value of 1 if the shareholding proportion of the largest shareholder exceeds 50 per cent, and 0 otherwise.
- (3) *Fifty*: dummy variable, takes the value of 1 if the largest shareholder is a non-state-owned entity, and 0 otherwise.
- (4) *Oc*: the sum of shareholding percentages from the second to the tenth largest shareholders.

(5) *Reloc*: the ratio of the sum of the shareholding proportion of non-controlling shareholders divided by the shareholding proportion of the controlling shareholder.

(6) *Second*: the shareholding proportion of the second largest shareholder.

(7) *Secfir*: the ratio of the shareholding proportion of the second largest shareholder divided by the shareholding proportion of the controlling shareholder.

4.1.3 Control variables

In addition to the above variables, which proxy ownership structure, other variables may also affect the formation of an audit committee. To test whether ownership structure affects the formation of an audit committee, we include control variables. Following previous studies, other variables, such as firm size, growth, long-term debt ratio, ratio of independent directors on the board, or the same person acting as both board chairman and top manager, may also affect the formation of an audit committee (Bradbury, 1990; Collier, 1993; Menon *et al.*, 1994; Collier *et al.*, 1999; Daniel N *et al.*, 2000; Klein, 2002).⁶ Therefore, we include the following variables as control variables in our test:

(1) *Asset*: the logarithm of total assets.

(2) *Leverage*: the book value of long-term debt divided by the book value of total assets.

(3) *Plural*: dummy variable, takes the value of 1 if board chairman is also the top manager of the firm, and 0 otherwise.

(4) *Growth*: the market value of net assets considering non-tradable factors divided by the book value.

(5) *Indirrato*: ratio of independent directors on the board.

We use a logit model to test the relationship between ownership structure and the likelihood an audit committee will be formed. The model is as follows:

$$Ac = \alpha + \beta_1 Ownership + \beta_2 Idirrato + \beta_3 Asset + \beta_4 Leverage + \beta_5 Plural + \beta_6 Growth + \varepsilon$$

In the model, ownership denotes those variables of ownership structure. We use different variables to proxy it in different models according to the demands of the study.

⁶ Generally speaking, the larger a corporation is, the more attention it receives from the public. A large corporation is more likely to form an audit committee. Corporations with a high rate of growth need a flexible and rapid decision-making system and will be less likely to form an audit committee. A corporation with a high long-standing debt has a large potential risk and will be more likely to form an audit committee. Because independent directors dominate the directorate, those corporations with a high percentage of independent directors will also be more likely to form an audit committee. If one person holds the board chairmanship and general manager position concurrently, this will strengthen the control of the holding shareholder and management over the corporation, and this kind of company will be less likely to form an audit committee.

4.2 Sample selection and descriptive statistics

According to institutional theory, Kalbers and Fogarty (1998) suggest that companies may imitate each other in setting up audit committees as a social control framework. In light of this factor, we select all companies listed in the Shanghai Stock Exchange (SSE) or the Shenzhen Stock Exchange (SZSE) in 2002 as the sample because the corporate governance standards were issued in 2002, and disclosures of audit committees in annual reports were not required before that year. To test the relationship between ownership structure and audit committee formation in the condition of concentrated ownership structure, we delete those companies where the ownership percentage of the largest shareholder is below 10 per cent. In addition, companies belonging to the finance industry are deleted from our sample because they have a special ownership structure. Samples with deficient data are deleted from our sample as well. The final sample contains 1046 companies.

Audit committee data come from the annual reports, while other data come from the CCER database. In our sample, the number of companies who have established an audit committee is 277, while the number of companies who have not done so is 769. Table 2 and Table 3 are descriptive statistics of variables. Table 4 describes the Spearman correlated coefficients of variables. Since the ownership of China's listed

Table 2 Descriptive Statistics of Variables

Variable	Mean	Median	Std. Dev.	Maximum	Minimum
<i>First</i>	0.4418	0.4362	0.1700	0.8500	0.1004
<i>Oc</i>	0.1751	0.1480	0.1357	0.5935	0.0061
<i>Rleoc</i>	0.5838	0.3326	0.6180	2.8625	0.0088
<i>Second</i>	0.0879	0.0553	0.0855	0.4250	0.0010
<i>Secfir</i>	0.2786	0.1418	0.2975	1.0000	0.0014
<i>Asset</i>	21.0148	20.9412	0.9148	26.6324	17.5534
<i>Growth</i>	1.0187	0.8881	0.8161	21.1341	-0.6870
<i>Indirrato</i>	0.2365	0.2222	0.0837	0.6667	0.0000
<i>Leverage</i>	0.0638	0.0256	0.1186	2.5526	0.0000

First: the shareholding proportion of the largest shareholder.

Oc: the sum of the shareholding proportion from the second largest to the tenth largest shareholders.

Rleoc: the ratio of the sum of the shareholding proportion of the non-controlling shareholder divided by the shareholding proportion of the controlling shareholder.

Second: the shareholding proportion of the second largest shareholder.

Secfir: the ratio of the shareholding proportion of the second largest shareholder divided by the shareholding proportion of the controlling shareholder.

Asset: the logarithm of total assets.

Growth: the market value of total assets considering non-tradable factors divided by the book value of total assets.

Indirrato: ratio of independent director on the board.

Leverage: the book value of long-term debt divided by the book value of total assets.

Table 3 Descriptive Statistics of Dummy Variables

Variable	Obs.	Corporations whose value is 1	
		Number of corporations	Percentage in sample
<i>Ac</i>	1046	277	26.48%
<i>First50</i>	1046	426	40.73%
<i>Firty</i>	1046	264	25.24%
<i>Plural</i>	1046	107	10.23%

Ac: dummy variable, takes the value of 1 if company has established an audit committee, and 0 otherwise.

First50: dummy variable, takes the value of 1 if the shareholding proportion of the largest shareholder exceeds 50 per cent, and 0 otherwise.

Firty: dummy variable, takes the value of 1 if the shares held by the largest shareholder are non-state-owned, and 0 otherwise.

Plural: dummy variable, takes the value of 1 if the board chairman and top manager are the same person, and 0 otherwise.

firms is highly concentrated, the mean and median of the shareholding proportion of the largest shareholder exceed the sum of those of the second largest to the tenth largest shareholders. Therefore, the largest shareholder, defined as the controlling shareholder, and other block shareholders, defined as non-controlling shareholders, is rational. In Table 4, we find that “*Oc*” and “*second*” are highly correlated, with a correlation coefficient of 0.924. The results show that the second largest shareholder plays the most important role among the non-controlling shareholders.

V. EMPIRICAL RESULTS

5.1 Test of Hypothesis 1

Table 5 presents the logistic regression results of Hypothesis 1. The coefficient of “*First*” is negative but not significant in model 1. In model 2, the coefficient of “*First50*” is negative, and the p-value is 0.080. This result shows that the likelihood an audit committee will be formed declines when the shareholding proportion of the largest shareholder gives absolute control of the company, which is consistent with H1b. Although the shareholding proportion of the largest shareholder does not have a significant negative relationship with the formation of an audit committee, which may result from the constitution of the shareholding proportion, the likelihood that an audit committee will be formed declines significantly if there is an absolute controlling shareholder. This means that the largest shareholder holds up the establishment of other monitoring mechanisms when she has the power to control the company, and also tends to expropriate the minority shareholders. From the perspective of the nature of shares, the coefficient of “*Firty*” in models 1 and 2 are negative and significant at the 1 per cent level. These results show that the likeli-

Table 4 Spearman Correlation Coefficient Matrix of Variables

	<i>First</i>	<i>First50</i>	<i>Firry</i>	<i>Oc</i>	<i>Rleoc</i>	<i>Second</i>	<i>Secfir</i>	<i>Asset</i>	<i>Growth</i>	<i>Indirrato</i>	<i>Leverage</i>	<i>Plural</i>
<i>First</i>	1.000	0.851	-0.348	-0.721	-0.863	-0.610	-0.779	0.196	-0.109	0.033	0.008	-0.041
p-value		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.286	0.802	0.185
<i>First50</i>		1.000	-0.262	-0.656	-0.744	-0.591	-0.698	0.170	-0.083	0.046	0.033	-0.023
p-value			0.000	0.000	0.000	0.000	0.000	0.000	0.007	0.137	0.280	0.458
<i>Firry</i>			1.000	0.305	0.349	0.272	0.325	-0.164	0.130	0.088	-0.130	0.058
p-value				0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.000	0.061
<i>Oc</i>				1.000	0.963	0.924	0.944	-0.201	0.085	-0.030	0.000	0.029
p-value					0.000	0.000	0.000	0.000	0.006	0.333	0.996	0.356
<i>Rleoc</i>					1.000	0.866	0.951	-0.211	0.104	-0.035	-0.004	0.042
p-value						0.000	0.000	0.000	0.001	0.256	0.890	0.177
<i>Second</i>						1.000	0.961	-0.149	0.049	-0.038	0.010	0.038
p-value							0.000	0.000	0.110	0.218	0.738	0.215
<i>Secfir</i>							1.000	-0.171	0.068	-0.045	0.005	0.044
p-value								0.000	0.029	0.146	0.880	0.156
<i>Asset</i>								1.000	0.337	0.028	0.880	0.557
p-value									-0.632	0.011	0.249	0.003
<i>Growth</i>									1.000	0.718	0.000	0.919
p-value										-0.004	-0.374	0.023
<i>Indirrato</i>										0.890	0.000	0.459
p-value										1.000	0.017	0.046
<i>Leverage</i>											0.578	0.133
p-value											1.000	-0.014
<i>Plural</i>												0.662
												1.000

First: the shareholding proportion of the largest shareholder. **First50:** dummy variable, takes the value of 1 if the shareholding proportion of the largest shareholder exceeds 50 per cent, and 0 otherwise. **Firry:** dummy variable, takes the value of 1 if the shares held by the largest shareholder are non-state-owned, and 0 otherwise. **Oc:** the sum of the shareholding proportion from the second largest to the tenth largest shareholders. **Rleoc:** the ratio of the sum of the shareholding proportion of the non-controlling shareholder divided by the shareholding proportion of the controlling shareholder. **Second:** the shareholding proportion of the second largest shareholder. **Secfir:** ratio of the shareholding proportion of the second largest shareholder divided by the shareholding proportion of the controlling shareholder. **Asset:** the logarithm of total assets. **Leverage:** the book value of long-term debt divided by the book value of total assets. **Plural:** dummy variable, takes the value of 1 if board chairman of the firm is also the top manager, and 0 otherwise. **Growth:** the market value of total assets considering non-tradable factors divided by the book value of total assets. **Indirrato:** the ratio of independent directors on the board.

Table 5 Logistic regression of Hypothesis 1

$$\text{Model: } Ac = \alpha + \beta_1 \text{Controller}^* + \beta_2 \text{Firty} + \beta_3 \text{Idirrato} + \beta_4 \text{Asset} + \beta_5 \text{Leverage} + \beta_6 \text{Plural} + \beta_7 \text{Growth} + \varepsilon$$

* **Controller** represents the nature of the largest shareholder. We use the variable of *First* and *First50* to proxy it in model 1 and model 2, respectively.

Variable	Model 1		Model 2	
	Coefficient	P-value	Coefficient	P-value
<i>First</i>	-0.672	0.150		
<i>First50</i>			-0.276	0.080
<i>Firty</i>	-0.656	0.001	-0.649	0.001
<i>Growth</i>	-0.018	0.851	-0.013	0.892
<i>Idirrato</i>	5.989	0.000	6.018	0.000
<i>Plural</i>	0.016	0.946	0.020	0.932
<i>Leverage</i> ⁷	-0.243	0.711	-0.206	0.753
<i>Asset</i>	0.201	0.020	0.204	0.018
Constant	-6.890	0.000	-7.155	0.000
Log likelihood	-574.298		-573.769	
Wald chi2	54.2***		54.9***	
Pseudo R2(%)	5.06		5.16	

First: the shareholding proportion of the largest shareholder.

First50: dummy variable, equals 1 if the shareholding proportion held by the largest shareholder exceeds 50 per cent, and 0 otherwise.

Firty: dummy variable, equals 1 if the shares held by the largest shareholder are non-state-owned shares, and 0 otherwise.

Growth: the market value of total assets considering non-tradable factors divided by the book value of total assets.

Leverage: the book value of long-term debt divided by the book value of assets.

Plural: 1 if the board chairman is also the top manager of the same firm, and 0 otherwise.

Idirrato: the per cent of independent directors on the board.

Asset: the natural logarithm of a company's total assets.

*** denotes 1 per cent in 2-tailed tests.

hood of formation of an audit committee declines significantly when the shares held by the largest shareholder are non-state-owned shares. These results are consistent with H1c and indicate that non-state-owned controlling shareholders may have a stronger incentive to expropriate minority shareholders. In view of other control variables, we find that “*indirrato*” is positive and significant. One explanation is that when a company decides to establish an audit committee, it has to employ more independent directors since they have to make up the committee, as required by the Code of Corporate Governance.

⁷ We deleted the 1 per cent extreme value of variables on both sides to overcome the influence of the extreme values of variables.

5.2 Tests of Hypothesis 2

Table 6 presents the logistic regression test results of Hypothesis 2. In models 4 and 5, we test the relationship between the likelihood of an audit committee being formed and the absolute and relative percentages of non-controlling shareholders separately. We find that the coefficient of "*Oc*" and "*Rleoc*" are positive and significant at the 5 per cent and 10 per cent levels, respectively. In models 6 and 7, we test the relationship between ownership checks of the second largest shareholder and the likelihood of an audit committee being formed. The results show that the coefficients of "*Second*" and "*Secfir*" are positive and significant at the 10 per cent level. The empirical evidence indicates that the higher the number of ownership checks, the greater the likelihood of an audit committee being formed, and that the second largest shareholder plays a major role in the ownership checks. Thus, the empirical results are consistent with Hypothesis 2.

In Table 7, the coefficient of "*Oc*" is positive and the p-value is 0.056. Furthermore, the coefficient of "*second*" is also positive and the p-value is 0.088. The relationship between the likelihood of an audit committee being formed and the shareholding proportion of non-controlling shareholders is also negative and significant when the variables separately representing the shareholding proportion of the controlling shareholder and that of the non-controlling shareholders are entered into the model together. We find that different shareholding proportions of non-controlling shareholders have different effects on ownership checks when the shareholding proportion of the controlling shareholder is relative high. The ownership checks of non-controlling shareholders on the largest shareholder are relatively independent of the shareholding proportion of the largest shareholder.

VII. CONCLUSION

We investigate the relationship between ownership structure and the likelihood that an audit committee will be formed based on the agency conflict between the controlling shareholder and minority shareholders. We find that controlling shareholders are more likely to use their power to hold up audit committee formation to reduce the costs of entrenchment when they have absolute control of listed firms. The nature of the shares held by the controlling shareholder also has significant influence on the formation of an audit committee. The likelihood that an audit committee will be formed declines when the shares held by the controlling shareholder are non-state-owned shares, because they may have a stronger incentive to expropriate the minority shareholders. The greater the checks of other shareholders, the higher the likelihood that an audit committee will be formed from the perspective of ownership checks and balances. There is also a significant positive relationship between the shareholding proportion of the second largest shareholder and the likelihood an audit committee will be formed. This result suggests that the main role in ownership checks and balances is taken on by the second largest shareholder.

This paper examines the influence of ownership structure on corporate governance from the perspective of voluntary audit committee formation. Empirical

Table 6 Logistic regression of Hypothesis 2*

Model: $Ac = \alpha + \beta_1 \mathbf{Balance}^{**} + \beta_2 \mathit{Firty} + \beta_3 \mathit{Indirrato} + \beta_4 \mathit{Asset} + \beta_5 \mathit{Leverage} + \beta_6 \mathit{Plural} + \beta_7 \mathit{Growth} + \varepsilon$
 ***Balance** represents the nature of the non-controlling shareholders. We use the variables of *Oc* and *Reloc* to proxy it in model 4 and model 5, respectively. In model 6 and model 7, we use the variables of *Secfrr* and *Secfir* to proxy it, respectively.

Variables	Model 4		Model 5		Model 6		Model 7	
	coefficient	P-value	coefficient	P-value	coefficient	P-value	coefficient	P-value
<i>Oc</i>	1.159	0.040	0.203	0.094	1.587	0.064		
<i>Reloc</i>							0.398	0.109
<i>Secfrr</i>							-0.650	0.001
<i>Firty</i>	-0.669	0.000	-0.657	0.001	-0.635	0.001	-0.009	0.922
<i>Growth</i>	-0.014	0.879	-0.015	0.875	-0.008	0.930	5.965	0.000
<i>Indirrato</i>	5.951	0.000	5.958	0.000	5.941	0.000	-0.254	0.698
<i>Leverage</i>	-0.294	0.663	-0.279	0.668	-0.247	0.712	0.020	0.934
<i>Plural</i>	0.023	0.923	0.025	0.916	0.019	0.938	0.193	0.024
<i>Asset</i>	0.200	0.019	0.199	0.020	0.186	0.029	-7.144	0.000
<i>Constant</i>	-7.381	0.000	-7.272	0.000	-6.997	0.000		
Log likelihood							-574.171	
Wald chi2	-573.190		-574.032		-573.623		54.5***	
Pseudo R2(%)	54.1***		55.1***		55.9***		5.11	
	4.91		5.05		5.23			

Oc: the sum of shareholdings proportion from the second shareholder to the tenth largest shareholders.

Reloc: the ratio of the shareholding proportion of non-controlling shareholders divided by the shareholding proportion of the largest shareholder.

Secfrr: the shareholding proportion of the secondary shareholder.

Secfir: the ratio of the shareholding proportion of the secondary shareholder divided by the shareholding proportion of the largest shareholder.

Firty: 1 if the shares held by the largest shareholder are non-state shares, and 0 otherwise.

Indirrato: the market value of total assets considering non-tradable factors divided by the book value of total assets.

Leverage: the book value of long-term debt divided by the book value of assets.

Plural: 1 if the board chairman and top manager are the same person, and 0 otherwise.

Asset: the natural logarithm of a company's total assets.

*** denotes in 1 per cent in 2-tailed tests

* Anonymous referees note that the coefficients in the test results are not significant and may not give strong support to the hypothesis. We believe the reason may lie in the data, because we cannot collect data about the nature of audit committees due to many restrictions. We believe there would be a more ideal result if the influence of the nature of audit committees were taken into account.

Table 7 Logistic Regression of Additional Tests

Variables	Model 8		Model 9	
	Coefficient	P-value	Coefficient	P-value
<i>Constant</i>	-7.509	0.000	-7.237	0.000
<i>Oc</i>	1.189	0.056		
<i>Second</i>			1.519	0.088
<i>First30</i>	-0.051	0.798	-0.153	0.396
<i>Firty</i>	0.694	0.000	0.687	0.000
<i>Growth</i>	-0.015	0.872	-0.010	0.917
<i>Leverage</i>	-0.305	0.652	-0.275	0.682
<i>Plura</i>	-0.018	0.941	-0.031	0.896
<i>Asset</i>	0.206	0.015	0.200	0.019
<i>Indirrato</i>	6.004	0.000	6.004	0.000
Log Likelihood	-574.805		-575.174	
Wald chi2	55.6***		56.8***	
Pseudo R2(%)	5.08		5.19	

Oc: the sum of shareholding proportion from the second largest to the tenth largest shareholders.

Second: the shareholding proportion of the second largest shareholder.

First30: dummy variable, equals 1 if the shareholding proportion held by the largest shareholder exceeds 30 per cent, and 0 otherwise.

Firty: dummy variable, equals 1 if the shares held by the largest shareholder are non-state-owned shares, and 0 otherwise.

Growth: the market value of total assets considering non-tradable factors divided by the book value of total assets.

Leverage: the book value of long-term debt divided by the book value of assets.

Plural: 1 if the board chairman and top-manager are the same person, and 0 otherwise.

Indirrato: the percentage of independent directors on the board.

Asset: the natural logarithm of a company's total assets.

*** denotes 1 per cent in 2-tailed test

evidence shows that ownership checks and balances can improve corporate governance. On one hand, this study contributes to the literature on ownership structure and corporate governance. On the other hand, our results suggest that corporate governance in China may be improved by decreasing controlling shareholder ownership, introducing strategic investors, establishing an independent director system, and reconstructing the board of directors.

REFERENCES

Please refer to P. 55-57