新会计准则对资本市场信息环境的影响研究 [1]

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摘要

　　本文以分析师的盈利预测作为研究视角，考察了新会计准则的实施对于资本市场信息环境的影响。我们的研究发现，采用新会计准则后，分析师的盈利预测误差显著增加，并且对于会计信息中需要管理层主观判断较多的公司以及公允价值使用程度较高的公司，其预测误差的增加程度更大。此外，新会计准则对分析师盈利预测的负面影响，在治理环境较差的地区更加严重。进一步的检验还发现，实施新会计准则后，分析师的预测分歧也显著增加。本文的结论在一定程度上表明，新会计准则的实施并没有改善资本市场的信息环境，反而增加了信息不对称的程度。

关键词：新会计准则、信息环境、盈利预测
中图分类号：F230、F276、F830

一、研究问题的提出

公司的会计信息质量是决定资本市场交易成本及其效率的重要因素之一。高质量的会计信息能够有效降低信息不对称的程度，从而减轻由逆向选择和道德风险造成的效率损失，反之亦然。实证研究表明，会计信息质量的提高不仅可以降低公司的资金成本(Leuz and Verrecchia, 2000; Francis *et al*., 2004)，而且能够引导资源的有效配置，提高投资的效率(Biddle and Hilary, 2006; Sun, 2006; Bushman *et al*., 2011)。在全球经济日益一体化的今天，会计信息的作用还不限于此，一套高质量的可比的会计信息体系还能降低信息的解读成本，从而促进资本的国际流动和全球的优化配置(Barth *et al*., 1999; Guenther and Young, 2003)。

有鉴于此，国际会计准则理事会(IASB)近年来一直致力于推动各国采用由其制定的统一的国际会计准则或与之趋近，并且取得了一定的成果。欧盟率先于2002年通过决议，要求所属成员国的上市公司于2005年开始全面采用国际会计准则。我国财政部也于2006年2月颁布了38项具体会计准则以及1项基本会计准则，并要求上市公司从2007年1月1日起开始施行。这是继欧盟之后，世界上又一重要的经济体的会计体系向国际会计准则的全面趋同。新会计准则的实施不仅是近年来我国资本市场的一个重大事件，也是我国会计准则发展乃至会计史上的标志性事件。

会计准则的变化看似简单，实则不然。表面上，它只是改变了财务列报的方式，但实际上还将通过一系列复杂的路径对经济效率产生影响。并且，现实世界的复杂性还决定了其实施效果和经济后果不能先验地加以模拟，从而使得几乎每次重大准则变革的推出都极富争议。事实上，我国的会计实务界和学术界对会计准则是否应该实现与国际会计准则的趋同及在多大程度上与之趋同的争论也从未停息过。新准则颁布后，针对多项公允价值会计的采用和赋予经营者对会计信息更多的裁量权和判断权可能引致的经济后果的争论，更是众说纷纭，褒贬不一。其中的不少问题和争论亟需实证研究加以检验。因此，对于新会计准则经济后果的研究十分必要和迫切，其现实意义和学术价值不言而喻。相关的研究不仅对我国的准则制定者、市场监管者、投资者、分析师以及审计师具有参考价值，对其他新兴市场国家的准则制定者和国际会计准则理事会也具有一定的参考意义(陈信元等，2011)。

新会计准则实施的经济后果中，一个尤受政策界和学术界关注的问题便是其对投资者的信息解读能力、信息解读成本，继而对整个资本市场信息环境的影响。而这也正是评价准则优劣及其执行效果的关键因素之一。由于公司的信息环境难以直接观测和量化，在实证研究中通常用替代性的指标来进行度量。分析师的盈利预测特征便是其中较为常用的衡量方法(Lang *et al*., 2003)。该方法之所以被学者广泛采用(Land and Lundholm, 1996; Healy *et al*., 1999; Gebhardt *et al*., 2001)，原因至少有二：(1)分析师作为资本市场重要的信息媒介，在投资者和企业之间扮演了"信息传递"的角色，他们利用专业知识与信息搜集加工的相对优势，向市场参与者提供合理反映证券内在价值的信息，从而提高市场定价的效率，降低证券市场的价格偏离。可以说，在信息日益膨胀的资本市场，证券分析师的工作成果已经成为普通投资者的重要信息来源。他们在资本市场的信息传递、吸收和转化中占据了重要的地位。(2)分析师盈利预测在很大程度上受到公司信息不对称程度的影响，因此可以通过考察预测特征推断公司信息环境的优劣。一般而言，公司的信息环境越好，信息

不对称程度越低，分析师可用于判断的信息越充分和准确，其盈利预测的误差也越低。在研究国际会计准则对信息环境影响的文献中，分析师的盈利预测准确性是应用最多的衡量方法之一(Ashbaugh and Pincus, 2001; Horton *et al.*, 2008; Bae *et al.*, 2008; Byard *et al.*, 2011)。因此，本文也参考以上文献，以分析师盈利预测准确性作为衡量指标，研究新准则对资本市场信息环境的影响。

我们的研究发现，总体而言，采用新会计准则后，分析师盈利预测误差显著增加。并且，对于会计信息中需要管理层主观判断比较多的上市公司以及公允价值使用程度越高的公司，分析师的预测误差增加程度越大。此外，新会计准则对分析师盈利预测的负面影响，在治理环境较差的地区更加严重。进一步的检验还发现，实施新会计准则后，分析师的预测分歧也显著增加。这些证据都表明，新会计准则的实施并没有改善资本市场的信息环境，反而在一定程度上增加了信息不对称的程度。

本文的研究具有以下两个方面的贡献：首先，本文与国际会计准则研究具有直接的相关性(Harris, 1995; Harris and Muller, 1999; Leuz and Verrecchia, 2000; Ashbaugh and Pincus, 2001; Ashbaugh and Olsson, 2002; Leuz, 2003; Bartov *et al.*, 2005; Hung and Subramanyam, 2007; Van Tendeloo and Vanstraelen, 2005; Barth *et al.*, 2008; Daske *et al.*, 2008, 2011; Covrig *et al.*, 2007; Byard *et al.*, 2011)。我们的研究提供了国际会计准则在新兴市场国家执行效果和经济后果的直接经验证据，对该领域的文献进行了有益的拓展。其次，本文从信息环境的角度对我国新会计准则的研究进行了拓展，对于相关文献也具有增量贡献（刘浩、孙铮，2008；罗婷等，2008；朱凯等，2008,2009；步丹璐、叶建明，2009；杜兴强等，2009；王素荣、蒋高乐，2009；陈丽花等，2009；谭洪涛、蔡春，2009；郝振平、陈武朝，2010；娄芳等，2010），研究结果对于准则制定者、监管者和投资者具有一定的启示意义。

本文其余部分的结构如下：第二部分在对相关文献进行回顾和评论的基础上，提出本文的研究假说；第三部分为本文的数据来源和研究设计；第四部分报告本文实证分析的结果；第五部分报告了拓展性分析和敏感性检验的结果。最后为本文的结论和启示。

二、文献评述、理论分析与研究假说

随着国际会计准则影响力的增强和影响范围的增加，对其经济后果的研究已引起了各国监管者、投资者和学术界极大的兴趣，并已成为国际学术研究的热点。就研究内容而言，我们可将此类文献大略归结为两类：一类为对国际会计准则和其他国家的会计准则质量的比较分析研究，即仅限于对不同准则下会计信息质量的对照考察和检验；另一类为对采用国际会计准则的经济后果的检验，包括对公司融资成本的影响、对投资者信息解读的影响等。

目前，上述两类研究都尚未形成统一的结论，研究结果存在较大的争议和分歧。如Bartov *et al.* (2005)，Hung and Subramanyam (2007)以及Van Tendeloo and Vanstraelen (2005)的研究虽然都是基于德国的资本市场，但研究结论却不尽相同。Bartov *et al.* (2005)的研究结果显示，采用国际会计准则的公司较之其他公司具有更高的盈余反应系数，他们由此认为国际会计准则具有较高的信息质量。而Hung and

Subramanyam (2007)以及 Van Tendeloo and Vanstraelen (2005)则分别发现，国际会计准则相对于德国会计准则，并不具备增量的价值相关性和更少的盈余平滑特征，即前者的会计信息质量并不优于后者。同样，基于国际会计准则和美国公认会计原则的比较研究所得出的结论也与之类似，并无一致的证据表明哪个准则下的会计信息质量更高 (Harris, 1995; Harris and Muller, 1999; Ashbaugh and Olsson, 2002; Barth *et al.*, 2008)。

Ashbaugh and Pincus（2001），Horton *et al.* (2008)，Bae *et al.* (2008)，Covrig *et al.* (2007)以及 Byard *et al.* (2011)则研究了国际会计准则对资本市场信息环境的影响。Ashbaugh and Pincus (2001)的研究以1993年前已自愿采用国际会计准则的欧洲公司作为研究样本。他们的研究发现，一个国家的会计准则与国际会计准则差异越大，财务分析师的盈利预测误差也越大。并且，当公司自愿采用国际会计准则后，分析师对该公司的盈利预测偏误降低，研究报告数量增加。他们认为这一结果表明，国际会计准则的采用能够有效降低会计信息使用者的解读成本，提高其对信息的吸收能力。Horton *et al.* (2008)的研究则以欧洲六个国家的上市公司作为研究样本，从分析师盈利预测误差、分析师跟踪人数、预测分歧和预测修正的变动幅度四个角度，考察了国际会计准则对公司信息环境的影响。他们的研究结果显示，采用国际会计准则后，样本公司的信息环境显著改善。并且，对于在2005年前已自愿采用该准则的欧洲公司，其信息环境改善的程度要远胜于其他公司。Bae *et al.* (2008)的跨国研究则考察了国际会计准则的实施是否有助于降低国外分析师的信息解读成本。他们的研究结果显示，本地准则与国际会计准则越接近，国外分析师对该国公司的跟踪人数越多，且其预测误差越低。这一研究结果表明采用国际会计准则可以有效降低国外分析师的信息解读成本。Covrig *et al.* (2007)对全球25000家基金的持股情况进行分析后发现，采用国际会计准则的公司较之采用本地会计准则的公司，其股东结构中国外基金公司的比例相对较高。他们指出这一结果表明，采用国际会计准则可以有效降低国外投资者的信息解读成本，减轻本土偏好 (Home Bias)的问题，从而促进资本的流动。Byard *et al.* (2011)则研究了欧洲在2005年全面实行国际会计准则对分析师盈利预测效果的影响。他们的研究发现，实行国际会计准则后，财务分析师对上市公司盈利预测的准确性显著提高。
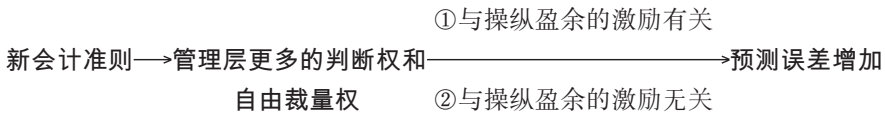
需要指出的是，上述研究发现的制度前提是存在一个相对成熟的市场体系，比较健全和完善的法律环境，从而能够保证一套高质量的会计准则的执行效果。如果离开制度环境的分析，直接将他们的理论套用于新兴市场国家并寄望于得到类似的结果则难免失之于简单。因此，对新会计准则经济后果的分析也需从准则的特点以及制度环境入手。惟其如此，才能获得更为可靠、更加深入的研究结论。

新会计准则的一个重要特点是赋予经营者对会计信息更多的裁量权和判断权 (财政部，2008)。理论上，作为公司内部人的经营者(包括大股东和管理层)，对公司的经营情况和财务状况更为熟悉，因此让他们对公司经济事项或经营活动进行判断，可使会计信息更准确、全面地反映公司的真实状况，从而降低投资者和公司之间信息不对称的程度。然而，理想状态往往不可得，管理层代理问题的存在通常使得其有动机，对公司的信息做出有利于自身的判断，从而在一定程度上影响会计信息的可靠性和相关性 (陈信元等，2011)。此时，是否存在良好的法律和监管制度，

高效的公司治理机制和高质量的审计就显得尤为关键，这将在很大程度上决定准则的执行效果。Ball (2006)就指出，虽然各国采用的是同一套国际会计准则，但由于它们在制度环境上存在较大差异，因此可能会形成不同的均衡质量。³作为新兴市场国家，我国在制度要素的各个方面仍然与成熟资本市场存在一定的差距。中国证监会在2008年发布的《中国资本市场发展报告》中指出："经过十几年的探索，中国资本市场不断发展，对于国民经济的支持作用也不断加强。近年来，股权分置改革等一系列市场化改革，使得中国资本市场各项制度更加完善，运行机制发生了深刻变化。但是，目前中国资本市场的基本特征仍然是'新兴加转轨'，整体发展水平仍然处于初级阶段。具体而言，市场机制仍然不够完善，市场运行效率不高；法律和诚信环境有待完善，监管有效性和执法效率有待提高。监管队伍的整体素质和监管工作的效率尚不能完全适应市场发展的需求，监管协调机制、执法有效性都有待进一步完善，并且当前自律组织功能尚不健全，自律监管过弱；上市公司治理水平有待提高，部分上市公司的公司治理'形似而神不至'，'三会'（股东大会、董事会和监事会）运作流于形式。部分国有上市公司所有者缺位，内部人控制问题严重。部分上市公司高管人员的勤勉尽责的意识淡薄"。同时，他们对中国资本市场现状的这一分析，也得到了大量经验证据的支持。已有的研究结果显示，我国在法律和监管执行效率、政府与市场的关系、市场发展程度(樊纲等，2006；沈艺峰等，2005；曾庆生，2004；夏立军等，2005；朱红军等，2007)、公司治理效率(陈晓、江东，2000；朱武祥、宋勇，2001；陈小悦、徐晓东，2001；李增泉，2002；李维安等，2006)以及公司审计质量(DeFond *et al.*, 1999；李树华，2000；刘峰、林斌，2000；吴溪，2001；刘峰等，2002；朱红军等，2004；Wang *et al.*, 2008)等各方面与成熟资本市场仍然存在较大差距。因此，在目前的制度环境下，赋予管理层更多的判断权和自由裁量权，可能会引致更为严重的盈余管理行为，不但不能改善公司的会计信息质量，反而可能产生负面影响，使得公司的信息不对称程度增加。不少经验研究也发现，实施新会计准则后，公司的会计信息质量下降，继而会计信息在契约中的有用性也随之下降。例如，王玉涛等(2009)的研究结果显示，新准则提供了平滑多期利润的会计方法，上市公司能够通过费用提前确认、收益递延确认等方式，增加对未来盈利的调节能力；尤其是那些当期盈利能力较差、盈利增长缓慢或过去盈利持续性较差的公司更可能选择这些会计方法。娄芳等(2010)考察了新准则的实施对会计信息在上市公司股利决策中的作用的影响。她们的研究发现，执行新准则降低了会计收益在现金股利决策中的解释力，说明上市公司制定现金股利决策时，考虑了不同准则下会计信息内涵的变化，因而降低了现金分红对会计收益的依据。因此，在我国目前的制度背景下，赋予管理层更多的判断权和自由裁量权，可能会引致更为严重的盈余管理行为，使得公司的信息不对称程度增加。而这又会进一步影响到分析师对公司盈利预测的准确性。

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3   他将可能的影响要素归纳为以下几个方面：1)政府对经济的干预程度；2)政府对财务报告利益相关方的影响程度；3)法律制度；4)资本市场的监管效率；5)融资市场的结构和发展程度；6)媒体、财务分析师以及其他中介机构的发达程度；7)公司治理机制的效率；8)国有股权和私有股权的相对比例；9)集团内部交易的程度；10)财务中介的发达程度；11)投资者的结构；12)审计师的独立性、业务能力以及薪酬的决定因素。

此外，在新准则赋予管理层更多判断权的情况下，即使不考虑盈余管理的问题，也会由于不同人的判断标准和依据存在较大差异，导致分析师对上市公司的盈利预测变得更为困难。财政部在2008年发布的新会计准则执行效果的分析报告中提到：新准则坚持原则导向，执行中需要会计人员根据准则规定做出职业判断，而在实际执行中，部分公司在职业判断方面存在一定的随意性，从而导致会计信息不够客观公允。[4] 无疑，这将提高分析师盈利预测的难度，从而导致预测误差增加。因此，综合以上分析，我们认为新会计准则影响分析师盈利预测误差的其中一条可能途径为：

$$\text{新会计准则}\longrightarrow \begin{matrix}\text{管理层更多的判断权和}\\ \text{自由裁量权}\end{matrix} \begin{matrix}\text{①与操纵盈余的激励有关}\\ \text{②与操纵盈余的激励无关}\end{matrix}\longrightarrow \text{预测误差增加}$$
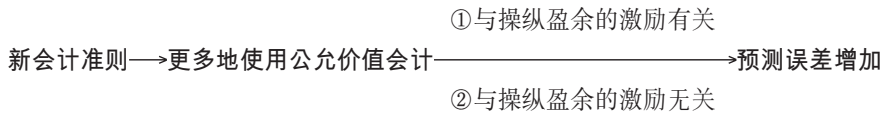
新会计准则的另一特点是增加了对公允价值的使用，而这也是其影响分析师盈利预测误差的另一可能途径。新会计准则尽管在公允价值的应用范围和程度上做了一定的选择和限制，但在这方面的改革力度仍然要远胜于历次准则变革。新准则中引入公允价值的具体准则至少包括金融工具、投资性房地产、非同一控制下的企业合并、债务重组和非货币交易等。理论上，公允价值的应用可以使会计信息更加及时和真实地反映公司的实际经营状况，从而提高或者增强会计信息的价值相关性和决策有用性。然而，在实际应用中，公允价值的效果却直接依赖于计价依据的可靠性。当缺乏可靠的计价依据时，不但难以起到正面的效果，反而会成为管理层盈余管理的工具，对会计信息质量产生负面影响。当公允价值的定价依据缺乏客观的标准而需要管理层根据公司的状况进行主观判断时，尤其如此（陈信元等，2011）。经验研究的证据也显示，新准则在公允价值的实施过程中存在不少盈余管理问题。He *et al.* (2010)的研究发现，新准则实施后，上市公司存在利用债务重组公允价值进行盈余管理的行为。特别是位于治理环境较差地区的公司，利用债务重组进行盈余管理的现象更加严重。叶建芳等(2009)的研究发现在新准则实施的初始划分点，持有金融资产较多的公司，倾向于将其划分为可供出售金融资产以获得更多的选择空间，为盈余管理和收益平滑提供"蓄水池"；在持有期间，盈利情况不好的公司，会利用处置可供出售金融资产进行盈余管理和平滑收益；盈利情况好的公司，则倾向于将可供出售金融资产中含有的作为资本公积的未实现利润留存到以后年度实现。事实上，对公允价值会计可能存在的负面效果的担忧也正是我国在以往的会计准则中甚少使用这一计量属性的重要原因。一个突出的例子是，我国在1998年和1999年曾先后在"债务重组"、"投资"和"非货币性交易"等准则中引入公允价值，但三项准则实施不到两年，就出现了很多公司滥用公允价值操纵利润的现象，最终准则制定

4　财政部的报告中以固定资产为例对原则导向的新会计准则可能存在的问题进行了阐述。报告指出，新准则要求企业根据与固定资产有关的经济利益预期实现方式合理选择折旧方法，按照固定资产性质和使用情况合理确定使用寿命和预计净残值。部分公司出于不同考虑随意选择固定资产折旧方法、确定使用寿命和预计净残值，与资产实际损耗情况不符，不利于会计信息使用者做出决策。

者不得不在2001年对其进行修订，大幅减少公允价值的运用。因此，新准则增加公允价值的使用范围和程度，可能会降低公司的信息质量，增加分析师搜集信息、加工整理信息的成本和难度，使其盈利预测的准确性降低。

此外，在我国目前的制度环境下，即使不考虑管理层代理行为的影响，公允价值会计的应用也未必能产生积极效果，并可能使得分析师的盈利预测变得更为困难。究其原因，至少有二。首先，我国证券市场经过十几年发展，虽已取得了引人瞩目的成就，但总体定价效率与成熟资本市场相比还有较大差距，存在显著的"板块联动"、"指标股效应"和"同涨同跌"等现象。李增泉(2005)和朱红军等(2007)的研究都发现，中国资本市场的股价同步性虽基本上呈逐年下降的趋势，但仍显著高于成熟资本市场。这导致以股价为定价依据的公允价值可能会存在较大的噪音。特别是，我国近年来资本市场的股价波动幅度较大，这使得基于股价的公允价值的运用(比如金融性资产)对盈利影响的不可预期性增加，而这也会加大分析师盈利预测的难度，造成其预测准确性下降。其次，樊纲等(2006)提到，虽然我国的市场化进程在过去几十年取得了举世公认的成功，商品市场、要素市场、产权市场等都得到了快速发展，但进展程度却很不平衡。就区域而言，在某些省份，特别是在东部沿海省份，市场化已经取得了决定性的进展，而在另外一些省份，经济中非市场因素还占有重要的地位。有些省区由于其产业结构等方面的制约，政府指令性价格和指导性价格所占的比重还相对较高(樊纲等，2006)。因此，公允价值的定价依据在某些地区和某些行业仍然难以真正公允，这继而又会对公允价值会计整体的执行效果产生负面影响。财政部于2001年发布的债务重组准则指南中就指出："由于我国生产资料市场、产权市场尚在建立健全之中，相关的公允价值难以真正地显现出'公允'，从而有可能影响因债务重组而产生的'利润'的真实性和可靠性，因此在修订后的债务重组准则中不再使用公允价值"。[5]因此，即使不考虑公允价值会计应用过程中可能产生的盈余管理问题，公允价值的使用范围和程度的增加也可能导致分析师的盈利预测变得更为困难，盈利预测误差随之增加。综合以上分析，我们认为新会计准则影响分析师盈利预测误差的第二条可能途径为：

                                            ①与操纵盈余的激励有关
新会计准则——→更多地使用公允价值会计————————————————→预测误差增加
                                            ②与操纵盈余的激励无关

在上述理论分析的基础上，我们首先提出本文要检验的第一个假说：

假说1：采用新会计准则后，分析师对上市公司盈利预测的误差增加。

此外，根据我们对新会计准则影响分析师盈利预测误差的两条可能路径的分析，本文进一步提出如下的研究假说2：

5　此处的修订是指财政部在2001年对1998年发布的债务重组准则的修订。该次修订后的准则并非目前最新的准则。2007年实施的新准则又对债务重组准则重新进行了修订。

假说2a：采用新会计准则后，对于会计信息中需要管理层主观判断较多的上市公司，分析师盈利预测误差的增加程度更大。

假说2b：采用新会计准则后，对于公允价值使用程度较高的上市公司，分析师盈利预测误差的增加程度更大。

此外，新会计准则的实施对分析师预测误差的影响，可能还会受到公司所处地区治理环境的影响。已有的大量研究发现，治理环境是我国一系列经济现象的关键解释变量。它会对公司价值(夏立军等，2005)、资本结构(孙铮等，2005)、金字塔结构(Fan *et al.*, 2010)、审计师的选择(Wang *et al.*, 2008)、关联交易(Jian and Wong, 2010)及股权分置改革中的对价(徐莉萍、辛宇，2007)产生重大影响。对于会计准则而言，良好的法律和监管体系及执行机制，可以增加管理层或内部人操纵盈余的成本，进而提高会计信息的质量和透明度。在新会计准则赋予管理层更多的自由裁量权和决策权的情况下，尤其如此。此外，市场的发展程度也将直接影响公允价值的使用效果。在发达的市场，公允价值的计价依据通常较易获得，价格的噪音也较小，计量较为准确。因此，在假说2的基础上，我们进一步提出本文要检验的第三个假说：

假说3：新会计准则赋予管理层更多的判断权以及加大公允价值的使用对分析师盈利预测的负面影响，在治理环境较差的地区更加严重。

三、样本选择和研究设计

3.1 样本选择和数据来源

本文所有的数据来源于CSMAR数据库。我们以新准则实施前的2004年至2006年和新准则实施后的2007年至2009年作为本文的研究期间。同时，为了使样本更符合本文的研究需求，我们按以下步骤进行了筛选：(1)要求进入最终样本的分析师盈利预测，其发布日期处于预测年度年报披露日之前和上一年度年报披露日之后；(2)当分析师在同一年度对某个公司有多次盈利预测时，则选择该分析师于最接近年报披露日发布的盈利预测；(3)删除金融保险类的公司和相关变量缺失的公司。经过这一样本选择程序，我们得到的最终观测点为4290个。此外，为了减轻潜在的异常值的影响，本文在回归分析中还对所有连续变量在5%和95%的水平上分年度进行了WINSORIZE处理。[6]

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6 本文在计量分析师盈利预测误差时以公司年末的每股收益(*EPS*)进行标准化，我们发现该变量的方差和极值较大，为了保证研究结论的可靠性，我们对所有连续变量在5%和95%水平上进行了Winsorize处理。

3.2 研究设计

本文主要参考了 Ashbaugh and Pincus (2001)、Byard *et al.* (2011)、Horton *et al.* (2008)、Lang *et al.* (2003)以及 Bae *et al.* (2008)等相关文献的方法，采用如下的模型(1)检验本文的假说1，即在采用新准则后，分析师的盈利预测误差较之前是否显著增加。

$$FERROR = \alpha_0 + \beta_1 NEWCAS + \beta_2 ASSET + \beta_3 NUM + \beta_4 HORIZON \\ + \beta_5 UE + \beta_6 RETSTD + \beta_7 CORR + INDUSTRY + \varepsilon \tag{1}$$

上述模型中的应变量 $FERROR$ 代表分析师的盈利预测误差，其具体的计算公式如下：

$$FERROR = |EPS - MedianAnalystForecast|/|EPS|$$

其中 $|EPS|$ 为公司实际每股收益(净利润除以当年末的总股数)的绝对值，$MedianAnalystForecast$ 为对同一个公司进行跟踪的所有分析师发布的每股收益预测的中位数。$FERROR$ 用于衡量分析师盈利预测的准确性，其值越大，表明分析师盈利预测的准确性越低，反之亦然。需要说明的是，由于我国资本市场近年来股价波动幅度较大，我们在主要的检验中都用公司当年的 $|EPS|$ 对盈利预测误差进行标准化(即除以 $|EPS|$)，以避免用股价标准化可能带来的计量误差。

模型中主要变量的定义和分析如下：

$NEWCAS$ 是用于表征不同会计准则期间的虚拟变量。当样本期间为2007至2009年时，该变量取值为1，而当样本期间为2004至2006年时，则取值为0。

$ASSET$、NUM 分别代表公司在当年年末总资产的自然对数值和分析师跟踪的人数，用于控制公司规模和分析师跟踪人数对盈利预测准确性的影响。

$HORIZON$ 为分析师盈利预测发布日与年报实际披露日间隔天数的自然对数，用来控制预测时长对预测准确性的影响。显然，当预测日与披露日越接近时，分析师可获得的信息越充分，盈利预测的误差越小(Clement, 1999; Horton *et al.*, 2008)。因此，我们预期该变量和预测误差成正比。

UE 用来衡量未预期盈余的大小，等于公司当年 EPS 与上一年 EPS 差的绝对值再除以上一年 EPS 的绝对值。已有的研究结果显示，盈余变动幅度越大，则分析师的盈利预测误差也越大(Land and Lundholm, 1996)。因此，我们预期该变量和预测误差正相关。

$RETSTD$ 和 $CORR$ 分别代表公司股票的波动性以及公司股票回报与会计盈余之间的相关系数。其中，$RETSTD$ 为前三年公司股票月度回报的标准差，$CORR$ 为前三年公司股票季度回报与季度会计盈余的相关系数。此外，我们还在模型中控制了行业因素的影响。

如果上述模型中 $NEWCAS$ 的系数显著为正，则表明采用新会计准则后，分析师的盈利预测误差增加，公司的信息环境变差，反之亦然。

为了考察新准则赋予管理层更多的判断权和自由裁量权，对分析师预测误差的影响，即本文的研究假说2a，我们将样本公司按照会计信息中需要管理层主观判断的程度进行分组，并利用模型(1)进行检验和比较。具体地，我们首先用公司每股盈余中应计值的比例(ACC)来衡量管理层主观判断的程度，其计算公式如下：$ACC=|Accrual|/|EPS|$，其中$Accrual$为每股应计值，等于净利润减去经营活动现金流量净额除以当年末的总股数。继而，我们以样本公司在新准则实施后三年ACC的均值作为分组依据，当ACC高于样本公司的中位数时，则归为管理层主观判断较多的组，反之则归为管理层主观判断较少的组。如果ACC较高组的$NEWCAS$系数显著大于ACC较低组对应的系数，则表明采用新准则以后，分析师对会计信息中需要管理层主观判断较多的公司的盈利预测误差增加程度更大。

类似地，为了考察新准则增加公允价值的使用范围和程度，对分析师预测误差的影响，即本文的研究假说2b，我们将样本公司按照公允价值的使用程度进行分组，并利用模型(1)进行回归检验和比较。具体地，我们首先用如下的变量FV来衡量公允价值对利润的影响程度：$FV=|FairValueGain|/|EPS|$，其中$FairValueGain$为每股公允价值变动的净损益。继而，我们用样本公司在新准则实施后三年FV的均值作为分组依据。当样本公司在新准则实施后三年FV的均值位于所有样本公司的90%分位点及以上时，我们将其划分为"FV较高组"，其余的样本公司则划分为"FV较低组"。如果FV较高组的$NEWCAS$系数显著大于FV较低组，则表明采用新准则以后，分析师对公允价值使用程度较高公司的盈利预测误差增加程度要大于其他公司。

最后，我们用如下的模型(2)和(3)检验本文的假说3，即新会计准则赋予管理层更多的判断权以及加大公允价值的使用对分析师盈利预测的负面影响，是否在治理环境较差的地区更加严重。

$$
\begin{aligned}
FERROR = {} & \alpha_0 + \beta_1 NEWCAS + \beta_2 ACC + \beta_3 NEWCAS*ACC \\
& + \beta_4 ASSET + \beta_5 NUM + \beta_6 HORIZON + \beta_7 UE \\
& + \beta_8 RETSTD + \beta_9 CORR + INDUSTRY + \varepsilon
\end{aligned}
\tag{2}
$$

$$
\begin{aligned}
FERROR = {} & \alpha_0 + \beta_1 NEWCAS + \beta_2 FV + \beta_3 NEWCAS*FV \\
& + \beta_4 ASSET + \beta_5 NUM + \beta_6 HORIZON + \beta_7 UE \\
& + \beta_8 RETSTD + \beta_9 CORR + INDUSTRY + \varepsilon
\end{aligned}
\tag{3}
$$

此处，我们以樊纲等(2006)编制的中国市场化指数中的法律保护程度($LEGAL$)分指标作为治理环境的代理变量。该变量的数值越大，对应的地区治理环境越好。我们将样本按照其所处地区的法律保护程度进行分组，当所处地区的法律保护指数大于样本公司的中位数时，则归为治理环境较好的组，反之则归为治理环境较差的组。在此基础上，我们分别用模型(2)和(3)对两组样本进行回归分析和比较。其中，ACC和FV的定义和模型1一致，并且对于样本公司在新准则实施前的ACC和FV，我们用新准则实施后三年的ACC和FV的均值来衡量。如果$LEGAL$较低组的$NEWCAS*FV$和$NEWCAS*ACC$系数显著大于$LEGAL$较高组，则表明新会计准则赋予管理层更多的判断权以及加大公允价值的使用对分析师盈利预测的负面影响，在治理环境较差的地区更加严重。

四、实证结果

4.1 描述性统计

表1提供了本文样本的筛选程序及其分布情况，其中Panel A列示了样本筛选情况和样本年度分布，Panel B列示了样本的行业分布。

表1：　样本筛选及分布

Panel A:样本筛选及年度分布

年份	2004	2005	2006	2007	2008	2009	合计
上市公司数量	1,352	1,357	1,411	1,527	1,602	1,660	8,909
－删除没有分析师盈利 预测的样本	565	721	863	1053	1194	1433	5829
－删除分析师预测发布日期 处于相邻两次年报 披露日之外的样本	364	597	665	804	996	1,279	4705
－删除金融保险行业以及 相关变量缺失的样本	333	530	639	723	877	1,188	4290

Panel B:样本行业分布

行业	数量	百分比	行业	数量	百分比
A农、林、牧、渔业	66	1.54%	D电力、煤气及水的 生产和供应业	205	4.78%
B采掘业	115	2.68%	E建筑业	59	1.38%
C制造业	2,629	61.28%	F交通运输、仓储业	255	5.94%
－ C0食品、饮料	193	4.50%	G信息技术业	193	4.50%
－ C1纺织、服装、皮毛	111	2.59%	H批发和零售贸易	262	6.11%
－ C2木材、家具	26	0.61%	J房地产业	262	6.11%
－ C3造纸、印刷	67	1.56%	K社会服务业	119	2.77%
－ C4石油、化学、 塑胶、塑料	471	10.98%	L传播与文化产业	20	0.47%
－ C5电子	169	3.94%	M综合类	105	2.45%
－ C6金属、非金属	458	10.68%			
－ C7机械、设备、仪表	791	18.44%			
－ C8医药、生物制品	325	7.58%			
－ C9其他制造业	18	0.42%	合 计	4290	100%

表2报告了本文主要变量的描述性统计结果。从中可以发现，分析师盈利预测误差的均值和中位数分别为0.4773和0.1996，而其标准差为0.7719，说明分析师对不同公司盈利的预测准确性有较大的差别。对同一家公司的分析师跟踪人数的均值和中位数分别为6.6457和4，最少跟踪人数为1人，最多为56人，超过25%的样本公司有9人以上的分析师跟踪。分析师盈利预测发布日与年报实际披露日间隔平均为168 ($e^{5.121}$)天，未预期盈余的均值和中位数分别为0.8383和0.3966，股票回报波动性的均值和中位数分别为0.1393和0.1335。盈余相关系数的均值和中位数分别为0.0671和0.0859，说明我国上市公司会计盈余的价值相关性较低。FV的均值和中位数分别为0.014和0。其中，本文研究样本中$FV>0$的比例约为38%。ACC的均值和中位数分别是2.5613和1.3184。

表2： 主要变量的描述性统计值

	N	Mean	Median	Std.	Min.	Q1	Q3	Max.
FERROR	4290	0.4773	0.1996	0.7719	0.0121	0.0772	0.4850	4.9341
SIZE	4290	22.500	22.408	0.9750	20.604	21.759	23.139	24.957
NUM	4290	6.6457	4.0000	7.2869	1.0000	2.0000	9.0000	56.000
HORIZON	4290	5.1210	5.2311	0.5639	0.0000	4.9593	5.4375	6.1247
UE	4290	0.8383	0.3966	1.2532	0.0220	0.1765	0.8796	7.0528
RETSTD	4290	0.1393	0.1335	0.0513	0.0522	0.0954	0.1769	0.2680
CORR	4290	0.0671	0.0859	0.3396	-0.9171	-0.1759	0.3166	0.7449
FV	4290	0.0140	0.0000	0.0336	0.0000	0.0000	0.0034	0.1350
ACC	4290	2.5613	1.3184	3.1531	0.2641	0.6376	2.9769	17.110
LEGAL	4290	6.6575	5.5200	3.1425	1.4900	3.8200	9.3300	13.070

表3： 假说1的检验结果

	预测符号	系数	t值
Constant	?	1.2232***	(3.50)
NEWCAS	+	0.1139***	(3.36)
SIZE	?	-0.1018***	(-6.92)
NUM	?	-0.0093***	(-4.97)
HORIZON	+	0.2703***	(13.42)
UE	+	0.0631***	(6.85)
RETSTD	+	1.3742***	(4.46)
CORR	?	0.0422	(1.26)
INDUSTRY		控制	
Adj.R²		0.1042	
F值		19.47***	
N		4290	

注：*、**、***分别表示在10%、5%、1%的水平上显著。

4.2 主要检验结果

　　表3报告了假说1的检验结果。从中可以发现,在控制了公司规模、分析师人数、分析师的预测时长、公司的盈利变动幅度、股票回报波动性以及盈余的相关系数等变量后,*NEWCAS*的系数为0.1139 (t值为3.36),在1%的水平上显著。这说明在新准则实施后,预测误差上升约24%(0.1139/0.4773),表明采用新会计准则后分析师盈利预测误差的增加具有统计意义和经济意义上的显著性,从而支持了本文的假说1。此外,与我们的预期一致,*HORIZON*和*UE*与预测误差正相关,其系数均在1%的水平上显著。

　　表4报告了假说2a的检验结果。研究结果显示,*ACC*较低组*NEWCAS*的系数为-0.0125,且不显著,而*ACC*较高组*NEWCAS*的系数为0.2408,且在1%的水平上显著。这说明新准则的实施对分析师盈利预测误差的负面影响主要存在于会计信息中需要管理层主观判断较多的公司。进一步,为检验两组样本间*NEWCAS*系数的差异,我们首先设置一个哑变量*H*,当样本公司处在*ACC*较高组,则*H*赋值为1,否则赋值为0,然后在模型(1)的基础上加入哑变量*H*及其与*NEWCAS*的交叉变量*H*NEWCAS*,交叉变量的显著性即为两组样本间*NEWCAS*系数差异的显著性。[7]研究结果显示,*ACC*较高组的*NEWCAS*系数在1%的水平上显著大于*ACC*较低组对应的系数(P值<0.0001)。这一结果表明,采用新准则以后,分析师对会计信息中需要管理层主观判断较多的上市公司的盈利预测误差增加程度要显著大于其他公司,从而验证了本文的研究假说2a。

表4： 假说2a的检验结果

	预测符号	*ACC*低组		*ACC*高组	
		系数	t值	系数	t值
Constant	?	0.5092*	(1.77)	2.5194***	(4.03)
NEWCAS	+	-0.0125	(-0.45)	0.2408***	(3.96)
SIZE	?	-0.0386***	(-3.25)	-0.1832***	(-6.85)
NUM	?	-0.0060***	(-4.14)	-0.0010	(-0.26)
HORIZON	+	0.1403***	(7.88)	0.3597***	(10.83)
UE	+	0.0643***	(6.16)	0.0281**	(2.04)
RETSTD	+	0.9441***	(3.75)	1.5532***	(2.82)
CORR	?	-0.0350	(-1.32)	0.1220**	(1.97)
INDUSTRY		控制		控制	
Adj.R^2		0.0901		0.1079	
F值		8.86***		10.60***	
N		2146		2144	
*NEWCAS*系数 的比较检验		p-value < 0.0001			

注：*、**、*** 分别表示在10%、5%、1%的水平上显著。

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[7]　具体方法参见："Introduction to SAS" UCLA: Academic Technology Services, Statistical Consulting Group from http://www.ats.ucla.edu/stat/sas/notes2/ (accessed 24 November 2007)。

表5报告了假说2b的检验结果。同样地，此处我们也采用分组的方法来检验和比较公允价值的不同使用程度对分析师预测误差的影响。具体而言，当样本公司在新准则实施后三年*FV*的均值位于所有公司90%分位点及以上时，我们将其划分为"*FV*较高组"，其余的样本公司则划分为"*FV*较低组"。[8]从表5报告的结果可以发现，*FV*较低组和较高组的*NEWCAS*系数分别为0.0933和0.2885，均显著为正。并且，两组样本系数比较检验的结果显示，*FV*较高组*NEWCAS*系数在1%的水平上显著大于*FV*较低组(P值为0.0056)。这一结果表明，采用新准则以后，分析师对公允价值使用程度越高公司的盈利预测误差增加程度越大，从而支持了本文的研究假说2b。

表5： 假说2b的检验结果

	预测符号	*FV* 低组		*FV* 高组	
		系数	t值	系数	t值
Constant	?	1.1491***	(3.22)	3.2932**	(2.15)
NEWCAS	+	0.0933***	(2.68)	0.2885**	(2.19)
SIZE	?	-0.0964***	(-6.42)	-0.2132***	(-3.30)
NUM	?	-0.0100***	(-5.23)	0.0047	(0.58)
HORIZON	+	0.2651***	(12.75)	0.3114***	(4.28)
UE	+	0.0679***	(7.09)	0.0022	(0.07)
RETSTD	+	1.3375***	(4.27)	2.5005*	(1.83)
CORR	?	0.0419	(1.24)	-0.0444	(-0.29)
INDUSTRY		控制		控制	
Adj.R²		0.1092		0.1044	
F值		18.53***		2.91***	
N		3862		428	
NEWCAS 系数 的比较检验		p-value = 0.0056			

注：*、**、***分别表示在10%、5%、1%的水平上显著。

表6报告了假说3的检验结果。此处，我们以样本公司所处地区的法律保护程度指数(*LEGAL*)是否大于所有公司的中位数，将样本划分为"*LEGAL*较高组"(即治理环境较好地区的公司)和"*LEGAL*较低组"(即治理环境较差地区的公司)。

首先，我们检验了新会计准则赋予管理更多的判断权对分析师盈利预测的负面影响，是否在治理环境较差的地区更加严重。Panel A报告了相应的结果。我们发现，交互项*NEWCAS*ACC*的系数在*LEGAL*较低组和较高组均显著为正，并且前者*NEWCAS*ACC*系数显著大于后者对应的系数(P值为0.0093)。这一结果表明，新会计准则赋予管理层更多的判断权对分析师盈利预测的负面影响，在治理环境较差的地区更加突出。

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[8] 我们非常感谢匿名审稿人给我们提供的建议。同时，我们还按照不同的分组方法进行了敏感性分析，研究结果并没有实质性的改变。具体请见敏感性检验部分。

　　继而，我们检验了新会计准则加大公允价值的使用对分析师盈利预测的负面影响，是否在治理环境较差的地区更加严重。Panel B报告了相应的结果。从中可以发现，对于两组样本，交互项 *NEWCAS*FV* 的系数均在1%的水平上显著为正。进一步，样本系数比较检验的结果显示，*LEGAL* 较低组公司的 *NEWCAS*FV* 系数显著大于LEGAL较高组对应的系数(P值为0.0776)。这一结果表明，新会计准则加大公允价值的使用对分析师盈利预测的负面影响，在治理环境较差的地区更加突出。

表6：　　假说3的检验结果

Panel A: *ACC*

	预测符号	*LEGAL* 低组		*LEGAL* 高组	
		系数	t值	系数	t值
Constant	?	2.0422***	(4.37)	0.4382	(0.97)
NEWCAS	+	-0.0515	(-1.00)	-0.0636	(-1.42)
ACC	?	0.0196***	(2.95)	0.0269***	(4.07)
*NEWCAS*ACC*	+	0.1265***	(14.00)	0.0936***	(10.73)
SIZE	?	-0.1313***	(-6.56)	-0.0668***	(-3.67)
NUM	?	-0.0005	(-0.20)	-0.0047**	(-2.06)
HORIZON	+	0.2429***	(9.36)	0.2382***	(9.24)
UE	+	0.0694***	(5.57)	0.0586***	(5.25)
RETSTD	+	0.2729	(0.66)	0.3647	(0.95)
CORR	?	-0.0117	(-0.26)	0.0570	(1.41)
INDUSTRY		控制		控制	
Adj.R^2		0.2835		0.2497	
F值		30.56***		25.35***	
N		2167		2123	
*NEWCAS*ACC* 系数的比较检验		p-value = 0.0093			

Panel B: *FV*

	预测符号	*LEGAL* 低组		*LEGAL* 高组	
		系数	t值	系数	t值
Constant	?	1.5990***	(3.10)	0.648	(1.32)
NEWCAS	+	0.0938*	(1.77)	0.0379	(0.83)
FV	?	-0.9909	(-1.03)	0.5281	(0.82)
*NEWCAS*FV*	+	6.1288***	(5.15)	3.5984***	(4.35)
SIZE	?	-0.1199***	(-5.43)	-0.0823***	(-4.17)
NUM	?	-0.0082***	(-2.94)	-0.0099***	(-3.98)
HORIZON	+	0.2791***	(9.78)	0.2551***	(9.13)
UE	+	0.0643***	(4.68)	0.0589***	(4.87)
RETSTD	+	1.4113***	(3.13)	1.2873***	(3.13)
CORR	?	0.0063	(0.12)	0.0472	(1.08)
INDUSTRY		控制		控制	
Adj.R^2		0.1294		0.1188	
F值		12.11***		10.87***	
N		2167		2123	
*NEWCAS*FV* 系数的比较检验		p-value = 0.0776			

注：*、**、*** 分别表示在10%、5%、1%的水平上显著。

五、拓展性分析和敏感性检验

5.1 拓展性分析

在信息环境的研究文献中，除盈利预测误差外，分析师的预测分歧是用于衡量上市公司与投资者之间的信息不对称程度的另一重要指标。因此，我们也以分析师预测分歧作为衡量指标来研究新准则的实施对公司信息环境的影响。通常而言，当公司的信息环境越好时，即其信息越透明时，分析师预测时运用的共有信息则越多，预期的一致程度也会越高。反之，公司的信息透明度较低时，即其信息质量越差时，则分析师需要运用更多的主观解读和其他的私有信息来形成自己的预期，从而使得其对公司盈利预测的一致程度降低，分歧增加。前已述及，在我国的制度环境下，管理层或大股东操纵会计信息动机的存在可能会使得公司的信息质量和信息透明度下降。并且，在新准则赋予管理层更多判断权的情况下，即使不考虑盈余管理的问题，也会由于不同人的判断标准和依据存在较大差异，导致分析师对上市公司的盈利预测变得更为困难。而这又会进一步导致分析师预测时更依赖主观判断和私有信息，盈利预测分歧增加。此外，资本市场的股价波动幅度较大，导致基于股价的公允价值预期的难度增加，而这同样也会使得分析师盈利预测的分歧加大。我们用如下的模型(4)对这一预期进行检验：

$$
\begin{aligned}
DISPERSION = {} & \alpha_0 + \beta_1 NEWCAS + \beta_2 ASSET + \beta_3 NUM \\
& + \beta_4 HORIZON + \beta_5 UE + \beta_6 RETSTD \\
& + \beta_7 CORR + INDUSTRY + \varepsilon
\end{aligned} \tag{4}
$$

模型中的应变量 $DISPERSION$ 为跟踪同一家公司的所有分析师盈利预测的标准差，用来衡量分析师预测的分歧程度。其他变量的定义与模型(1)一致。如果 $NEWCAS$ 的系数显著为正，则表明采用新准则后，分析师盈利预测的分歧增加。

表7报告了相应的检验结果。我们发现，模型中 $NEWCAS$ 的系数显著为正，表明新准则实施后分析师的预测分歧显著增加。[9]这一结果进一步支持了本文的主要结论，即新会计准则的实施并没有改善资本市场的信息环境，反而引致了一定的负面后果。

表7： 新会计准则对分析师盈利预测分歧的影响

	预测符号	系数	t值
Constant	?	-0.3233***	(-6.34)
NEWCAS	+	0.0110**	(2.32)
SIZE	?	0.0066***	(3.34)
NUM	?	0.0025***	(10.17)
HORIZON	+	0.0382***	(9.45)
UE	+	0.0102***	(7.57)
RETSTD	+	0.1268***	(3.03)
CORR	?	0.0066	(1.44)
INDUSTRY		控制	
Adj.R2		0.1537	
F值		22.50***	
N		3198	

注：*、**、*** 分别表示在10%、5%、1%的水平上显著。

9　此处样本的减少主要原因为计算分析师预测误差分歧时，至少需要两个以上分析师的盈利预测数据。此外，作为敏感性分析，我们删除了分析师跟踪人数少于3的样本重新对模型(4)进行检验，结果与表7类似，此时 $NEWCAS$ 的系数为0.0170（t值为3.16），在1%的水平上显著。

5.2 敏感性检验

为了使得研究结论更加稳健，我们还进行了如下的敏感性检验：

(1) 分析师盈利预测误差在2007年前后发生变化，可能由会计准则的变化导致，也可能由其他宏观经济因素的变化引致。如果主要是由于后一原因引致，那么我们在会计准则没有改变或者改变影响不大的样本，也能发现分析师盈利预测误差显著增加。我们通过对B股和H股公司的分析，来尽可能排除本文的结果由宏观因素驱动的可能性。由于，B股和H股公司在2007年前已经有实施国际会计准则的经验。因此，此类公司受新准则实施影响较小。如果宏观因素的变化是分析师盈利预测误差增加的主要原因，那么我们仍然可以发现分析师对B股和H股公司的预测误差在2007年后显著增加。反之，如果没有发现这一现象，则通过与基于其他A股公司的研究结论的结合分析(本文主体部分的结论)，可以在一定程度上说明，新准则的实施是分析师盈利预测增加的其中一个原因。为此，我们对分析师在准则实施前后对B股和H股公司的盈利预测误差的变化进行了检验。研究结果显示，对于受新准则实施影响较小的B股和H股公司，分析师盈利预测误差并没有显著增加。我们认为这一结果可以在一定程度上说明，新准则的实施可能是分析师盈利预测误差增加的其中一个原因，我们的研究结论并非完全由其他市场因素的变化引致。

(2) 为了控制样本期间内其他因素的影响，本文利用一组在准则实施前后均有分析师跟踪的企业进行检验，尽可能避免前后期间样本的变化对研究结论可能产生的影响，我们发现，该敏感性分析的结果与本文主体部分的研究结果并没有实质性的差别。

(3) 由于金融行业在规模、管制以及会计处理等各方面与其他行业均存在较大不同，因此我们在主要的检验中参考已有文献的做法，将该行业从研究样本中剔除。但是，由于公允价值对金融行业的影响可能较大，因此我们利用包含金融行业的样本进行敏感性分析。我们发现，这一敏感性分析的结果与本文原有的结果基本一致。

(4) 本文主要检验中的分析师盈利预测误差，是用$|EPS|$进行标准化。由于有些公司的$|EPS|$很小，特别是$|EPS|$接近于零时，标准化后的预测误差会变的很大。此时，预测误差的标准差也会很大，存在比较极端的值。因此，为了尽可能减少潜在的极端值的影响，我们将样本在5%和95%的水平进行了WINSORIZE处理。为了使得研究结论更加严谨，我们还进行了如下的敏感性分析：1)将盈利预测误差变量($FERROR$)在5%和95%的水平上进行WINSORIZE，而对其他变量在1%和99%的水平下进行WINSORIZE；2)删除了$|EPS|$接近于0的样本，以避免"小分母"的问题。具体地，将样本公司的EPS取绝对值后，删除了$|EPS|$最小的5%的公司。我们发现，这一敏感性分析的结果与本文主要的结果基本一致。

(5) 我们还在原有模型基础上控制了分析师所属券商的规模进行敏感性分析。其中，某一样本对应的券商规模，我们用所有对该公司进行盈利预测的分析师所属券商的总资产或者总营业收入的平均值进行衡量。[10]我们发现，加入这一控制变量后，本文的主要研究结果并未发生实质性变化。

(6) 为了更好地控制分析师个体因素的影响，我们对样本进行了更为严格的筛选，要求在准则实施前后发布盈利预测的分析师群体并未发生变化。这一样本筛选程序，可以保证我们的回归分析比较的是相同的分析师在准则实施前后盈利预测误差的差异，因此可以最大程度控制分析师个人从业经验（包括整体经验和公司经验等）对研究结果的影响。经过这一样本筛选程序后，我们发现，除了$NEWCAS$系数在FV低组和高组间的系数差异检验不显著外（P值为0.4531），[11]其它结果与本文的主要研究结论并未发生实质性变化。

(7) 本文使用的FV变量可能存在各明细项目的正值和负值相互抵消的情况。为了克服这种情况对研究结论的影响，我们手工收集了2007年至2009年间样本公司公允价值变动损益科目的明细数据，对各明细科目取绝对值后再相加，作为公司的FV值。经过这一处理，研究结论并没有发生实质性改变。

(8) 对本文假说2b的检验时，我们还采取了其它的分组方法作为敏感性分析：1)将样本划分为三组。当样本公司在新准则实施后三年FV的均值位于所有样本公司的90%分位点及以上时，我们将其划分为"FV高组"，其余$FV>0$的样本划分为"FV低组"，$FV=0$的样本则划分为"$FV=0$组"。研究结果显示，分组检验时，$NEWCAS$的系数在各组都显著为正，并且FV越高的组，$NEWCAS$的系数越大。系数比较检验的结果显示，除了$FV=0$组和FV低组的系数差异不显著外，$FV=0$组和FV高组以及FV低组和FV高组的系数差异均显著。2)改变分组的分位点。当样本公司在新准则实施后三年FV的均值位于所有样本公司的80%分位点及以上时，我们将其划分为"FV较高组"，其余的样本公司则划分为"FV较低组"。研究结果显示，FV较高组$NEWCAS$的系数在10%的水平上显著大于FV较低组对应的系数。

(9) 由于2007年为新准则实施的第一年，可能存在分析师对会计准则不熟悉等情况。我们将2007年的样本删除以后进行敏感性分析，得到的结果与本文主要的研究结果基本一致。

(10) 本文的实证检验主要以分析师在当年年报披露前最后一次盈利预测作为研究的样本，而为了使研究结论更加稳健，我们也采用分析师在当年所作的全部盈利预测作为研究的样本进行相关检验。回归结果并没有明显差异。

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[10] 由于缺乏2007年以前券商的财务指标数据，我们以2007-2009年券商的总资产或者总营业收入的平均值作为券商规模的代理指标。此外，由于部分券商数据缺失导致部分样本丢失，本部分的最终分析中我们得到4002个观测样本。

[11] 一个可能的原因是，此时样本与本文主要研究样本相比小很多（筛选后仅剩1225个观测样本）。

六、结论与研究局限

6.1 结论

本文以分析师的盈利预测作为研究视角，考察了新会计准则的实施对于资本市场信息环境的影响。我们的研究发现，采用新会计准则后，分析师的盈利预测误差显著增加，并且对于会计信息中需要管理层主观判断较多的公司以及公允价值使用程度较高的公司，其预测误差的增加程度更大。此外，新会计准则对分析师盈利预测的负面影响，在治理环境较差的地区更加严重。进一步的检验还发现，实施新会计准则后，分析师的预测分歧也显著增加。

本文的结论在一定程度上表明采用新会计准则后，公司的信息环境变差，信息质量和透明度下降。我们的这一发现，与基于成熟资本市场的类似研究得出了截然相反的结论。本文的理论和制度分析显示，造成这一现象的可能原因为：在我国资本市场法律体系、公司治理机制等相对落后的制度背景下采用新会计准则，赋予管理层更多的自由裁量权和判断权，在一定程度上成为大股东和管理层操纵盈余的工具，从而降低了会计信息的可靠性。并且，在新准则赋予管理层更多判断权的情况下，即使不考虑盈余管理的问题，也会由于不同人的判断标准和依据存在较大差异，导致分析师对上市公司的盈利预测变得更为困难。此外，由于我国近年来资本市场的股价波动幅度较大，这使得基于股价的公允价值的运用（比如金融性资产）对盈利影响的不可预期性增加，从而增加了分析师盈利预测的难度。

本文的研究启示为：新会计准则引入公允价值，赋予管理层更多的裁量权和判断权，本质上乃是一把双刃剑。如其有良好的法律体系和市场环境作为保障，则可为投资者提供更多透明、可靠的信息，改善资本市场的信息环境。反之，如其缺乏这些保障，则反而可能成为公司盈余操纵的工具，降低公司信息的质量，使得资本市场的信息环境变差。因此，提高新会计准则的实施效果，不仅仅应从其具体的技术执行层面做出努力（如相关的培训），更应该从更为基本的制度层面入手，改善法律的执行，完善相应的惩戒制度以及整个资本市场的外部环境，这样才能从根本上提高新会计准则的执行效果。

6.2 研究局限

本文至少存在如下几方面的局限性：

第一，尽管在稳健性检验中，我们尽可能排除宏观环境变化对分析师盈利预测误差的影响。但是，由于宏观环境的复杂性和难以量化性，我们所做的这些检验仍然无法完全排除这一因素的影响。

第二，本文的样本仅占2004年至2009年期间所有样本的50%左右，这一数据缺陷可能使得我们的样本缺乏一定的代表性或者研究结论只能适用于某类公司。经过对样本代表性的分析，我们发现，有分析师跟踪的样本和没有分析师跟踪的样本行业分布比较接近，而有分析师跟踪的公司，规模较大、业绩较好，这与已有的研究发现一致。同时，有分析师跟踪的公司，国有企业的比例更高。因此，由于数据的限制，本文的结论可能更适用于规模较大的公司和业绩较好的公司。

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The Effects of the Adoption of the New China Accounting Standards on Firms' Information Environment[1]

Xianjie He, Tusheng Xiao, Ye Tian, and Xinyuan Chen[2]

Abstract

This paper examines the effects of the adoption of the new China Accounting Standards (CAS) on firms' information environment in China by investigating changes in the properties of analysts' earnings forecasts. We find that analysts' earnings forecast errors increase after the adoption of the new CAS, especially for firms using accounting policies that involve more management judgements and for firms that use fair value accounting more widely. Furthermore, we find that the magnitude of forecast error after the adoption of the new CAS is larger for firms located in regions with a poor institutional environment. Additional tests reveal that the dispersion of analyst forecasts also increases after the adoption of the new CAS. To some extent, the results suggest that the adoption of the new CAS increases information asymmetry in the capital market rather than improves the information environment.

Keywords: New China Accounting Standards, Information Environment, Earnings Forecast

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I.   Introduction

The quality of accounting information is one of the important factors that determine the transaction cost and efficiency of the capital market. High-quality accounting information can efficiently reduce the information asymmetry and hence relieve the efficiency loss caused by adverse selection and moral hazards, and vice versa. Prior studies provide evidence that the improvement of earnings quality can not only reduce the costs of capital (Leuz and Verrecchia, 2000; Francis *et al*., 2004) but can also help to enhance investment efficiency (Biddle and Hilary, 2006; Sun, 2006; Bushman *et al*., 2011). In addition to the above benefits, high-quality and comparable accounting information can also reduce information costs and hence promote the international mobility and globally optimised allocation of capital under the background of economic globalisation (Barth *et al*., 1999; Guenther and Young, 2003).

In view of this, the International Accounting Standards Board (IASB) has been promoting the International Financial Reporting Standards (IFRS) worldwide in recent years. Following the mandatory adoption of the IFRS by the European Union (EU) in 2005, the Ministry of Finance of the People's Republic of China also promulgated a series of new China Accounting Standards (CAS), comprising 38 specific standards and one basic standard, in February 2006, and listed firms have been required to implement these standards since 1 January 2007. Being an important economic entity, China also proposed the convergence of its accounting system with the IFRS after the EU adopted these standards. The adoption of the new CAS is not only a great event in China's capital market in recent years but also a symbolic event in the development of China's accounting standards and accounting systems.

A change of accounting standards seems simple, but actually the reverse is true. Ostensibly, it merely alters the way of presenting financial statements, but actually it has an impact on the efficiency of the economy via a series of complex routines. Furthermore, it is very difficult or even impossible to predict the economic consequences of adopting the new accounting standards, and this often makes the reform of accounting standards highly controversial. In fact, the debates among accounting practitioners and academics on whether China's accounting standards should converge with the IFRS and how extensive the degree of convergence should be have never stopped. Since the promulgation of the new CAS, the debate has mainly concentrated on the economic consequences of the wider use of fair value accounting and management being required to make more judgements on accounting policies. Empirical research is badly needed to test many of these issues and arguments. Therefore, it is both necessary and urgent to examine the economic consequences of the new CAS. The findings of relevant studies may have implications not only for standard setters, regulatory agencies, investors, analysts, and auditors in China but also for the IASB and standard setters in other emerging markets (Chen *et al*., 2011).

Among the economic consequences of the new CAS, an issue that regulators and scholars are especially interested in is the effects of the adoption of the new CAS on firms' information environment, which is also one of the key factors for assessing the success of the new accounting standards. As it is difficult to observe and quantify the information environment directly, alternative proxies are usually used in empirical studies. One of the most widely used measures is analysts' earnings forecasts (Lang *et al*., 2003). This measure is widely used by scholars for at least two reasons (Land and Lundholm, 1996; Healy *et al*., 1999; Gebhardt *et al*., 2001). First, financial analysts, as important information intermediaries in the capital market, play an important role in information transmission between investors and firms. Making use of their professional knowledge and information acquisition and processing ability, they provide market participants with reasonable information that reflects the intrinsic value of stocks, thereby increasing the market efficiency and reducing the deviation of stock prices. It can be said that the achievements of financial analysts have become a major information source for investors. In short, financial analysts play an important role during the transmission, absorption, and transformation of information. Second, analysts' earnings forecasts are greatly influenced by the degree of information asymmetry. As a result, firms' information environment can be deduced by investigating the properties of earnings forecasts. Specifically, for firms with a better information environment and a lower degree of information asymmetry, analysts will have more abundant and accurate information to help them make their judgements, resulting in smaller earnings forecast errors. Among the literature that examines the effects of IFRS adoption on information environment, the accuracy of analysts' earnings forecasts has been the most frequently used measure (Ashbaugh and Pincus, 2001; Horton *et al*., 2008; Bae *et al*., 2008; Byard *et al*., 2011). Therefore, following prior studies, this paper examines the effects of the adoption of the new CAS on firms' information environment in China by investigating the changes in the properties of the analysts' earnings forecasts.

We find that after the adoption of the new CAS, analysts' earnings forecast errors increase, especially for firms using accounting policies that involve more management judgements and for firms that use fair value accounting more widely. Furthermore, we find that the magnitude of increase in forecast errors after the adoption of the new CAS is larger for firms located in regions with a poor institutional environment. Additional tests reveal that the dispersion of analyst forecasts also increases after the adoption of the new CAS. To some extent, the results suggest that the adoption of the new CAS increases information asymmetry in the capital market rather than improves the information environment. Our paper makes several contributions to the field. First, we add to the growing body of papers that have examined the economic consequences of IFRS adoption in capital markets (e.g. Harris, 1995; Harris and Muller, 1999; Leuz and Verrecchia, 2000; Ashbaugh and Pincus, 2001; Ashbaugh and Olsson, 2002; Leuz, 2003; Bartov *et al*., 2005; Hung and Subramanyam, 2007; Van Tendeloo and Vanstraelen,

2005; Barth *et al*., 2008; Daske *et al*., 2008, 2011; Covrig *et al*., 2007; Byard *et al*., 2011). We provide new empirical evidence on the economic consequences of IFRS adoption in emerging markets. Second, this paper expands the studies on the economic consequences of the adoption of the new CAS (e.g. Liu *et al*., 2008; Luo *et al*., 2008; Zhu *et al*., 2008, 2009; Bu *et al*., 2009; Du *et al*., 2009; Wang *et al*., 2009; Chen *et al*., 2009; Tan *et al*., 2009; Hao *et al*., 2010; Lou *et al*., 2010). The findings of this paper may have implications for policy makers, regulators, and investors.

The remainder of the paper proceeds as follows: Section II discusses the prior literature and our hypothesis development; Section III presents the research design; Section IV reports the empirical results; Section V presents the additional analyses and sensitivity tests; and Section VI concludes the paper.

II. Literature Review and Hypothesis Development

There have been many papers that have examined the effects of IFRS adoption in recent years. Some papers have examined whether earnings quality has improved after the adoption of the IFRS, and some have examined the economic consequences of IFRS adoption, including the effects on the cost of capital and investors' information costs. Currently, no uniform conclusion has been reached in these two strands of the literature, and much of the empirical evidence is mixed. For example, the samples in Bartov *et al*. (2005), Hung and Subramanyam (2007), and Van Tendeloo and Vanstraelen (2005) are taken from the German New Market, but they have produced mixed results. Bartov *et al*. (2005) use the earnings response coefficient to proxy for earnings quality, and they find that companies applying the IFRS have a higher earnings response coefficient than other firms. However, Hung and Subramanyam (2007) and Van Tendeloo and Vanstraelen (2005) find that the adoption of the IFRS does not increase value relevance or reduce earnings smoothing, indicating that the accounting quality under the IFRS is no better than that under local standards. Prior studies that compare earnings quality between the IFRS and the US Generally Accepted Accounting Principles (US GAAP) have also provided mixed results (Harris, 1995; Harris and Muller, 1999; Ashbaugh and Olsson, 2002; Barth *et al*., 2008).

Ashbaugh and Pincus (2001), Horton (2008), Bae *et al*. (2008), Covrig *et al*. (2007), and Byard *et al*. (2011) examine the effects of IFRS adoption on firm's information environment. Ashbaugh and Pincus (2001) use European companies that adopted IFRS voluntarily before 1993 as their sample. They find that the greater the differences between local accounting standards and the IFRS, the higher the analyst earnings forecast errors. Further, they find that after firms apply the IFRS voluntarily, analyst forecast errors decrease and analyst following increases. They document that the adoption of the IFRS can efficiently reduce the information costs and increase the usefulness of accounting information for users. Horton *et al*. (2008) examine the effects of IFRS adoption on

a firm's information environment through four dimensions: analysts' earnings forecast error, analyst following, forecast dispersion, and the change in forecast revision. Their sample consists of listing companies in six European countries. They document that firms' information environment improves after IFRS adoption. Furthermore, the improvement in the information environment for European companies that voluntarily adopted the IFRS before 2005 is much greater than that for other companies. Bae *et al*. (2008) investigate whether the adoption of the IFRS helps to reduce the information costs for foreign analysts. They find that the smaller the differences between local standards and the IFRS, the greater the foreign analyst following and the lower the forecast error. This evidence suggests that the adoption of the IFRS helps to reduce the information costs for foreign analysts. Using a unique database containing information on the shareholdings of over 25,000 mutual funds around the world, Covrig *et al*. (2007) find that foreign mutual fund ownership in firms adopting the IFRS is significantly higher than that in firms adopting local standards. They conclude that IFRS adoption can decrease information costs and reduce the home bias of foreign investors, thereby improving capital allocation efficiency. Byard *et al*. (2011) examine the effects of the mandatory adoption of the IFRS by the EU on firms' information environment. They find that for mandatory IFRS adopters, analysts' absolute forecast errors and forecast dispersion decrease relative to the control sample.

It needs to be pointed out that the premise of the above findings is the existence of a relatively mature system which could assure the implementation effects of a series of high-quality accounting standards. It would be impossible to achieve similar results in emerging markets, where the institutional environment is much weaker than in mature markets. Therefore, an analysis of the economic consequences of the new CAS should be based on the properties of the standards and the institutional environment so that we can obtain more reliable and convincing conclusions.

A key property of the new CAS is that the accounting policies involve more management judgements than the old CAS (Ministry of Finance, 2008). Theoretically, managers have more information on the operating and financial situation of firms. Given that management has more discretion to make judgements on accounting policies, the accounting information should reflect actual corporate operations more accurately and comprehensively, thereby reducing the degree of information asymmetry between investors and companies. However, this ideal condition is rarely achieved. Management usually have a strong incentive to make judgements on corporate information in favour of themselves, and this would destroy the reliability and relevance of the accounting information (Chen *et al*., 2011). Whether or not a good legal and supervision system, efficient corporate governance, and high-quality audit exist really does matter; to a large extent, these determine the success of new accounting standards. Ball (2006) points out that even when various countries adopt the same international accounting standards, different levels of equilibrium quality can emerge due to great differences in

institutional environment.[3] As China is an emerging market, there are great differences between various aspects of its institutional environment and the institutional environment in developed capital markets. As described in the *China Capital Markets Development Report* published in 2008 by the China Securities Regulatory Commission (CSRC),
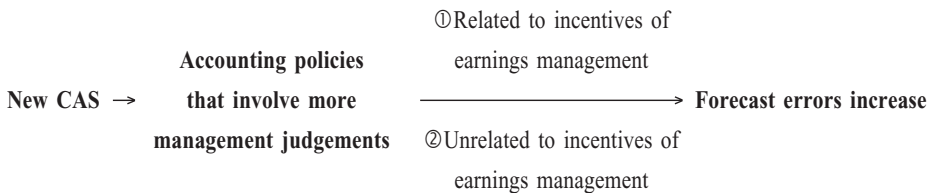
> "over the past ten years, China's capital market has been developing constantly and has a stronger function in supporting the national economy. In recent years, a series of market-oriented reforms, including the reform of the split share structure, have created more sound mechanisms in the Chinese capital market and have changed the operating mechanism to a large extent. However, China's capital markets are emerging markets in a transitional economy. Specifically, the market mechanisms are still not perfect and there is low operational efficiency. There is a need for improvements to the legal system and an awareness of integrity issues; regulation, supervision, and enforcement efficiency also need further improvement. The overall qualifications of regulatory professionals and the efficiency of supervision cannot fully satisfy the demands of market development. Supervisory coordination and enforcement efficiency need further improvement. Meanwhile, the self-regulatory organisations have not been fully functioning. The corporate governance mechanisms should be further enhanced. Governance in some listed companies only exists on paper, not in reality; general meetings, board meetings, and supervisory board meetings have all become mere formalities. In some state-controlled listed companies, ownership structures are unclear and management has taken control. The integrity of the senior management in some listed companies is unsatisfactory."

Meanwhile, the CSRC's analysis of the current situation of the Chinese capital markets has been supported by various empirical studies. Prior studies have documented that China is still very different from developed capital markets in various respects, including the enforcement efficiency of the legal and regulatory systems, the relation between the government and the market, the development of market (Fan *et al*., 2006; Shen *et al*., 2005; Zeng, 2004; Xia *et al*., 2005; Zhu *et al*., 2007), corporate governance efficiency (Chen *et al*., 2000; Zhu *et al*., 2001; Chen *et al*., 2001; Li, 2002; Li *et al*., 2006), and audit quality (DeFond *et al*., 1999; Li, 2000; Liu *et al*., 2000; Wu, 2001; Liu *et al*., 2002; Zhu *et al*., 2004; Wang *et al*., 2008). Therefore, under the current institutional environment, accounting practices involving more management judgements may lead to more serious earnings management, which may have negative impacts rather than improving accounting quality and hence increasing the degree of information asymmetry. Several empirical studies document that after the adoption of the new CAS, earnings

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[3]   He summarised the possible influencing factors as follows: (1) the extent and nature of government involvement in the economy; (2) government involvement in financial reporting practices; (3) legal systems; (4) securities regulation and regulatory bodies; (5) the structure and depth of financial markets; (6) the roles of the press, financial analysts, and rating agencies; (7) structure of corporate governance; (8) the extent of private versus public ownership of corporations; (9) the extent of corporate membership in related company groups; (10) the extent of financial intermediation; (11) the structure of investors; and (12) the status, independence, training, and compensation of auditors.

quality decreases, as does the usefulness of the accounting information in contracts. For example, Wang *et al*. (2009) show that earnings smoothing increases after the adoption of the new CAS. Specifically, firms can increase their ability to smooth future earnings by advancing the recognition of cost and deferring the recognition of income. Companies with poor performance, slow earnings growth, and bad earnings persistence in the current period are more likely to choose these accounting methods. Lou *et al*. (2009) examine the effects of the new CAS on the dividend policies of listing companies. They find that the adoption of the new CAS reduces the usefulness of earnings information to firms' cash dividend policy. These results indicate that listing companies consider the changes in accounting standards when they formulate their cash dividend policy. Specifically, they reduce the reliance of cash dividends on accounting income under the new CAS. Therefore, under the current institutional environment, accounting policies that involve more management judgements may lead to more severe earnings management problems and hence increase the degree of information asymmetry, which will further affect the accuracy of analysts' earnings forecasts.

In addition, under the situation of placing more discretion in the hands of management, it is more difficult for analysts to forecast the earnings of listed companies due to the great differences in judgement standards among different people, even if the issue of earnings management is disregarded. It has been pointed out in the *Analysis Report on the Implementation of New Accounting Standards by Chinese Listed Companies* issued in 2008 by the Ministry of Finance that the new CAS are principle based, and this requires accountants to make professional judgements according to the rules of the standards. However, in practice, some companies have a certain degree of discretion in their professional judgements, and the result of this is that the accounting information is not fair enough.[4] Undoubtedly, this makes producing earnings forecasts more difficult for analysts and hence increases forecast errors. Therefore, based on the above analysis, we suggest that one possible channel through which the adoption of the new CAS influences analysts' earnings forecast errors is as follows:
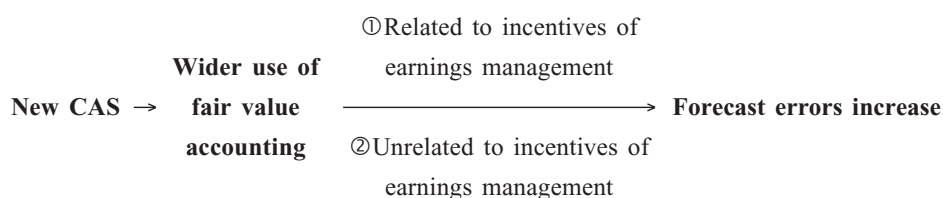

		① Related to incentives of	
	Accounting policies	earnings management	
New CAS →	**that involve more**	——————————————→	**Forecast errors increase**
	management judgements	② Unrelated to incentives of	
		earnings management	

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4   The Ministry of Finance has expounded the possible problems of the principle-based new accounting standards in its report by taking fixed assets as the example. It has been pointed out in the report that the new standards require companies to choose a method of depreciation according to the realisation of economic benefits related to fixed assets and to determine the useful life and residual value of the fixed assets according to the assets' nature and status. However, some companies have chosen a method of depreciation but have determined the useful life and residual value of the fixed assets arbitrarily, which is unsuitable given the actual exhaustion status of assets, resulting in a negative influence on decision making for accounting information users.

Another key property of the new CAS is the wider use of fair value accounting, which is also a possible channel for influencing analysts' earnings forecast errors. Although the new CAS has selected and limited the range and degree of fair value accounting, the rigour of the reform on this aspect is far greater than previous reforms. The specific standards that introduce fair value accounting cover various aspects, including financial instruments, real estates for investment, corporate mergers under non-common control, debt restructuring, and non-monetary transactions. Theoretically, with the wider use of fair value accounting, accounting information will reflect actual corporate operations more timely and truly, thereby enhancing the value relevance and decision usefulness of accounting information. However, in practice, the effectiveness of fair value accounting depends directly on the reliability of the measurement basis. Without a reliable measurement basis, fair value accounting will not be able to have a positive effect, but rather will be used as a tool of earnings management, resulting in a negative influence on accounting quality, especially for firms where the management are more involved in making judgements on the benchmark of fair value when there is a lack of objective standards (Chen *et al*., 2011). Many empirical studies show that earnings management is prevalent after the adoption of the new CAS. He *et al*. (2010) find that after the adoption of the new CAS, fair value accounting for debt restructuring creates opportunities for earnings management. In particular, earnings management through debt restructurings is more serious among firms in regions with a poor institutional environment. Ye *et al*. (2009) find that at the beginning of the adoption of the new CAS, companies with more financial assets prefer to classify these assets as available-for-sale financial assets (AFS) in order to acquire more choices and to offer room for earnings management and smoothing earnings in the future. When companies are holding these assets, the companies with poor performance may dispose of AFS for earnings management and earnings smoothing purposes and the companies with good performance may prefer to recognise the unrealised profit as a capital surplus in AFS and realise it through the sale of AFS in future years. In fact, the negative effect of fair value accounting is one of the important reasons why China rarely applied this measurement attribute in previous accounting standards. One prominent example is that China introduced fair value in accounting standards covering debt restructuring, investment, and non-monetary transactions in 1998 and 1999. However, the standards were modified by greatly reducing the application of fair value principles in 2001 as many companies had abused fair value accounting to manipulate earnings. Therefore, the increased range and degree of fair value accounting of the new CAS may lead to a deterioration in firms' information environment and increase the cost and difficulty of information acquisition, processing, and classification for financial analysts, resulting in a decline in the accuracy of earnings forecasts.

In addition, under the current institutional environment, even if the effect of agency problems is not considered, the wider use of fair value accounting does not necessarily

produce positive effects; rather, it may lead to more difficulties in terms of analysts' earnings forecasts. There are at least two reasons for this. First, over the past 10 years, although China's capital market has achieved great success, there is still a wide gap in terms of overall market efficiency when compared with developed capital markets. The phenomena of sector co-movement, the large-cap leading effect, and stock price synchronicity are prevalent in the Chinese capital market. Both Li (2005) and Zhu *et al*. (2007) find that the stock price synchronicity in the Chinese capital market is clearly higher than it is in developed capital markets, although it is showing an obvious declining trend in recent years, and this may lead to greater noise in the measurement of fair value, which is based on stock prices. Especially as stock prices in China's capital market have fluctuated greatly recently, it is very difficult to predict the effects of fair value accounting, which is based on stock prices (e.g. financial assets), on earnings, and this also increases the difficulty of forecasting earnings for analysts, resulting in lower forecast accuracy. Secondly, Fan *et al*. (2006) point out that although China has achieved great success in the process of marketisation during the past several decades, with rapid developments in the commodity, factor, and property rights markets, the extent of these developments is very imbalanced. In some provinces, especially provinces in the eastern coastal area, marketisation has achieved decisive progress, while in others, non-market factors still play an important role in the economy. The proportion of government-directed or government-guided pricing is high in some provinces due to the constraints of the industrial structure (Fan *et al*., 2006). Therefore, fair value accounting can hardly reflect real fairness in some areas and industries, and this may have a negative influence on the whole implementation effect of fair value accounting. The Ministry of Finance has pointed out in *Guidance for Debt Restructuring Standards* issued in 2001 that "As China's production market and property rights market are being established, fair value can hardly reflect real fairness, and thus this influences the truth and reliability of the profits generated from debt restructuring. Consequently, fair value is no longer used in the modified standards of debt restructuring."[5] Therefore, even if earnings management is not considered, the wider use of fair value accounting may make it more difficult for analysts to forecast earnings and thus forecast errors may increase. Based on the above analysis, we suggest that the second possible channel through which the adoption of the new CAS influences analysts' earnings forecast errors is as follows:

New CAS → **Wider use of fair value accounting**

①Related to incentives of earnings management
──────────────────────→ **Forecast errors increase**
②Unrelated to incentives of earnings management

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[5]   The revision here refers to the *Debt Restructuring Standards* issued by the Ministry of Finance in 1998. The modified standards are not the final version. The new accounting standards implemented in 2007 have also made revision to the debt restructuring standards.

Based on the above analysis, we put forward the first hypothesis of this paper:

Hypothesis 1: Analysts' earnings forecast errors increase after the adoption of the new accounting standards.

In addition, according to the analysis on the two possible channels through which the adoption of the new CAS influences analysts' earnings forecast errors, we further put forward a second hypothesis:

Hypothesis 2a: After the adoption of the new accounting standards, the increase in analysts' earnings forecast errors is greater for firms using accounting policies that involve more management judgements.

Hypothesis 2b: After the adoption of the new accounting standards, the increase in analysts' earnings forecast errors is greater for firms that use fair value accounting more widely.

Moreover, the effects of the adoption of the new CAS on analysts' forecast errors may depend on the institutional environment of the regions in which the firms are located. Many empirical studies suggest that the institutional environment is a key explanatory variable for a series of economic phenomena in China as it may have a great influence on firm value (Xia *et al*., 2005), capital structure (Sun *et al*., 2005), pyramid structure (Fan *et al*., 2010), auditor selection (Wang *et al*., 2008), related-party transactions (Jian and Wong, 2010), and the consideration of split share structure reform (Xu and Xin, 2007). As far as accounting standards are concerned, a good legal environment, sound regulation, and enforcement efficiency could increase the cost of earnings management for managers and insiders, thereby increasing the quality and transparency of accounting information, especially for firms using accounting policies that involve more management judgements. In addition, the degree of the development of the market will also directly influence the implementation effect of fair value accounting. In developed markets, the valuation basis of fair value accounting may be easier to obtain with fewer noises and greater accuracy. Therefore, based on Hypothesis 2, we put forward our third hypothesis:

Hypothesis 3: The adoption of the new accounting standards, which gives rise to more management judgements and the wider use of fair value in accounting treatments, generates a negative impact on the accuracy of analysts' earnings forecasts. The magnitude of the negative impact is greater for firms located in regions with a poor institutional environment.

III. Sample Selection and Research Design

3.1 Sample Selection and Data Source

All of the data in this paper are obtained from the China Stock Market and Accounting Research (CSMAR) database. Our sample period covers the pre-new CAS period (2004-2006) and the post-new CAS period (2007-2009). Meanwhile, we apply the following process to refine our sample. First, the analysts' earnings forecast must be issued between the last announcement date and the announcement date of the forecasted year. Second, when analysts have made several forecasts in the same year, the earnings forecast closest to the announcement date of the forecasted year should be selected. Third, we exclude firms in the financial industry and firms with incomplete data. We obtain 4,290 observations after the above data selection process. In addition, to reduce the effect of potential outliers, we winsorise all of the continuous variables at the 5th and 95th percentiles.[6]

3.2 Research Design

Following Ashbaugh and Pincus (2001), Byard *et al.* (2011), Horton *et al.* (2008), Lang *et al.* (2003), and Bae *et al.* (2008), we use the following Model (1) to test Hypothesis 1 that analysts' earnings forecast errors clearly increase after the adoption of the new CAS.

$$FERROR = \alpha_0 + \beta_1 NEWCAS + \beta_2 ASSET + \beta_3 NUM + \beta_4 HORIZON \\ + \beta_5 UE + \beta_6 RETSTD + \beta_7 CORR + INDUSTRY + \varepsilon \tag{1}$$

The dependent variable *FERROR* measures analyst forecast error, which is calculated using the following formula:

$$FERROR = |EPS - MedianAnalystForecast|/|EPS|.$$

$|EPS|$ is the absolute value of a firm's actual earnings per share (net income divided by total shares at the end of the fiscal year). *MedianAnalystForecast* is defined as the median of earnings per share forecasts issued by all analysts following the same company. *FERROR* is used to measure the accuracy of analysts' earnings forecasts. The higher the value, the lower the accuracy of analysts' earnings forecasts, and vice versa. It should be noted that we have standardised the earnings forecast errors by current *EPS* in the main tests (divided by $|EPS|$). We believe that because of the great fluctuation of stock

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[6] We standardise the analyst' earnings forecast errors by $|EPS|$ at the end of the fiscal year and find that the variance and extreme value are very great. To guarantee the reliability of the conclusions, we winsorise all of the continuous variables at the 5th and 95th percentiles.

prices in China's capital market in these years, this measure is better than standardising the earnings forecast errors by stock prices.

The other variables in this model are defined as follows:

NEWCAS is a dummy variable, which equals 1 for the sample period between 2007 and 2009 (new CAS period) and 0 for the sample period between 2004 and 2006 (old CAS period).

ASSET and *NUM* are respectively the natural logarithm of a company's total assets at the end of the fiscal year and the number of analysts following the firm and are used to control for the size effect and the influence of analyst following on the accuracy of earnings forecasts.

HORIZON is the natural logarithm of the interval between the forecast's issue date and the earnings announcement date and is used to control for the influence of time span of forecast on the accuracy of forecasts. Obviously, when the forecast's issue date is closer to the earnings announcement date, analysts can obtain more abundant information and make fewer errors in their earnings forecasts (Clement, 1999; Horton *et al*., 2008). Therefore, we expect that this variable will be positively associated with forecast error.

UE measures unexpected earnings, defined as the absolute value of the difference between current *EPS* and *EPS* for the prior year divided by the absolute value of *EPS* for the prior year. Prior studies have documented that *UE* is positively correlated with analysts' earnings forecast errors (Land and Lundholm, 1996).

RETSTD and *CORR* respectively measure the volatility of stock returns and the correlation between returns and earnings. *RETSTD* is defined as the standard deviation of monthly returns over the previous 3 years, and *CORR* is defined as the correlation between quarterly returns and quarterly earnings over the previous 3 years. Moreover, we also include industry dummies to control for industry-specific factors.

A significant and positive coefficient of *NEWCAS* in the above model would indicate that the adoption of the new CAS increases analysts' earnings forecast errors and hence deteriorates the firm's information environment, and vice versa.

To investigate whether the increase in analysts' earnings forecast errors is greater in firms using accounting policies that involve more management judgements (Hypothesis 2a in this paper), we divide the samples into two groups according to the degree of management judgement on accounting policies and employ Model (1) in each group. Specifically, we use the variable *ACC* to measure the degree of management judgement, which is calculated using the following formula: $ACC=|Accrual|/|EPS|$, where *Accrual* represents the total accruals per share, defined as the difference between net income and net operating cash flow divided by total shares at the end of year. Firms with an *ACC* higher than the median value of the sample are classified as the "more management judgement" group, and the rest of the companies are classified as the "less management judgement" group. If the coefficient of *NEWCAS* for the more management judgement group is significantly higher than that for the less management judgement group, it

indicates that analyst forecast errors increase more for firms using accounting policies that involve more management judgements after the adoption of the new CAS, and vice versa.

Similarly, in order to investigate whether the increase in analysts' earnings forecast errors is greater in firms that use fair value accounting more widely after the adoption of the new CAS, (Hypothesis 2b), we divide the samples into two groups according to the level of use of fair value accounting (*FV*), which is calculated using the following formula: *FV*=|*FairValueGain*|/|*EPS*|, where *FairValueGain* represents the net profit and loss from fair value changes per share. Firms with a *FV* higher than the 90th percentile of the sample are classified as the "high fair value" group, and the rest of the companies are classified as the "low fair value" group. If the coefficient of *NEWCAS* for the high fair value group is significantly higher than that for the low fair value group, it indicates that analyst forecast errors increase more for firms that use fair value accounting more widely after the adoption of the new CAS, and vice versa.

Finally, we employ Models (2) and (3) below to examine Hypothesis 3: the adoption of new accounting standards, which gives rise to more management judgements and the wider use of fair value in accounting treatments, generates negative impacts on the accuracy of analyst earnings forecasts. The magnitude of the negative impacts is greater for firms located in regions with a poor institutional environment.

$$
\begin{aligned}
FERROR = {} & \alpha_0 + \beta_1 NEWCAS + \beta_2 ACC + \beta_3 NEWCAS*ACC \\
& + \beta_4 ASSET + \beta_5 NUM + \beta_6 HORIZON + \beta_7 UE \\
& + \beta_8 RETSTD + \beta_9 CORR + INDUSTRY + \varepsilon
\end{aligned} \tag{2}
$$

$$
\begin{aligned}
FERROR = {} & \alpha_0 + \beta_1 NEWCAS + \beta_2 FV + \beta_3 NEWCAS*FV \\
& + \beta_4 ASSET + \beta_5 NUM + \beta_6 HORIZON + \beta_7 UE \\
& + \beta_8 RETSTD + \beta_9 CORR + INDUSTRY + \varepsilon
\end{aligned} \tag{3}
$$

We use the legal environment index (*LEGAL*) formulated by Fan *et al*. (2006) to proxy for the institutional environment: the higher the value, the better the institutional environment. We divide the sample into two groups according to the median value of the legal environment index. Firms located in regions with a legal environment index higher than the median value of the sample are classified as the "good institutional environment" group while the others are classified as the "poor institutional environment" group. Next, we estimate Models (2) and (3) in each group, respectively. *ACC* and *FV* are defined as in Model (1), and we use the mean value of *ACC* and the mean value of *FV* for 3 years after the adoption of the new CAS to measure the *ACC* and *FV* of firms before the adoption of the new CAS, respectively. If the coefficients of *NEWCAS*FV* and *NEWCAS*ACC* for the poor institutional environment group are significantly higher than those for the good institutional environment group, it will indicate that the magnitude

of the negative impacts is greater for firms located in regions with a poor institutional environment.

IV Empirical Results

4.1 Descriptive Statistics

Table 1 reports the sample selection process and the distribution of the final sample. Specifically, Panel A illustrates the sample selection process and the distribution of the sample by year, and Panel B reports the distribution of the sample by industry.

Table 1: Sample Selection and Distribution

Panel A: Sample Selection and Distribution by Year							
Year	2004	2005	2006	2007	2008	2009	Total
Number of Listed Companies	1,352	1,357	1,411	1,527	1,602	1,660	8,909
– Excluding samples without analyst earnings forecast	565	721	863	1,053	1,194	1,433	5,829
– Excluding samples with the issue date of analyst earnings forecast not within the period between two yearly announcement dates of annual reports	364	597	665	804	996	1,279	4,705
– Excluding firms in the financial industry and firms with incomplete data	333	530	639	723	877	1,188	4,290

Panel B: Sample Distribution by Industry					
Industry	Num.	%	Industry	Num.	%
A. Farming, Forestry, Animal Husbandry, and Fishing	66	1.54%	D. Electricity, Gas, and Water Production and Supply	205	4.78%
B. Mining	115	2.68%	E. Construction	59	1.38%
C. Manufacturing	2,629	61.28%	F. Transportation and Warehousing	255	5.94%
– C0. Food and Beverages	193	4.50%	G. Information Technology	193	4.50%
– C1. Textile, Apparel, and Fur	111	2.59%	H. Wholesale and Retail Trades	262	6.11%
– C2. Lumber and Furniture	26	0.61%	J. Real Estate	262	6.11%
– C3. Paper and Printing	67	1.56%	K. Social services	119	2.77%
– C4. Petroleum, Chemicals, Rubber, and Plastics	471	10.98%	L. Communications	20	0.47%
– C5. Electricals	169	3.94%	M. Miscellaneous	105	2.45%
– C6. Metals and Non-metals	458	10.68%			
– C7. Machinery, Equipment, and Instruments	791	18.44%			
– C8. Medicine and Biological Products	325	7.58%			
– C9. Other Manufacturing	18	0.42%	Total	4,290	100%

Table 2 reports the descriptive statistics for the main variables. We find that the mean (median) value of *FERROR* is 0.4773 (0.1996) and the standard deviation is 0.7719, which indicates that the accuracy of analysts' earnings forecasts is very volatile across firms. The mean (median) of *NUM* is 6.6457 (4.0000). In addition, the minimum and maximum of *NUM* are 1 and 56, respectively. The average interval between the forecast's issue date and the earnings announcement date is 168 days ($e^{5.121}$). The means (median) of *UE* and *RETSTD* are 0.8383 (0.3966) and 0.1393 (0.1335), respectively. The mean (median) of *CORR* is 0.0671 (0.0859), which suggests that the value relevance of earnings in listed companies is very low in China. The mean (median) of *FV* is 0.0140 (0.0000), and the proportion of the sample with a *FV* > 0 is about 38 per cent. The mean (median) of *ACC* is 2.5613 (1.3184).

Table 2: Descriptive Statistics

	N	Mean	Median	Std.	Min.	Q1	Q3	Max.
FERROR	4290	0.4773	0.1996	0.7719	0.0121	0.0772	0.4850	4.9341
SIZE	4290	22.500	22.408	0.9750	20.604	21.759	23.139	24.957
NUM	4290	6.6457	4.0000	7.2869	1.0000	2.0000	9.0000	56.000
HORIZON	4290	5.1210	5.2311	0.5639	0.0000	4.9593	5.4375	6.1247
UE	4290	0.8383	0.3966	1.2532	0.0220	0.1765	0.8796	7.0528
RETSTD	4290	0.1393	0.1335	0.0513	0.0522	0.0954	0.1769	0.2680
CORR	4290	0.0671	0.0859	0.3396	-0.9171	-0.1759	0.3166	0.7449
FV	4290	0.0140	0.0000	0.0336	0.0000	0.0000	0.0034	0.1350
ACC	4290	2.5613	1.3184	3.1531	0.2641	0.6376	2.9769	17.110
LEGAL	4290	6.6575	5.5200	3.1425	1.4900	3.8200	9.3300	13.070

4.2 Main Results

Table 3 reports the result of the tests for Hypothesis 1. We find that the coefficient of *NEWCAS* is 0.1139 (t-value 3.36), which is significant at the 1 per cent level, after controlling for *SIZE*, *NUM*, *HORIZON*, *UE*, *RETSTD*, and *CORR*. This suggests that forecast errors increase by 24 per cent (0.1139/0.4773) after the adoption of the new CAS. These results support Hypothesis 1 that analysts' earnings forecast errors increase significantly after the adoption of the new CAS. Moreover, as we expected, the coefficients of *HORIZON* and *UE* are positive and are both significant at the 1 per cent level.

Table 3: Results of Tests for Hypothesis 1

	Predicted sign	Coeff.	t-value
Constant	?	1.2232***	(3.50)
NEWCAS	+	0.1139***	(3.36)
SIZE	?	-0.1018***	(-6.92)
NUM	?	-0.0093***	(-4.97)
HORIZON	+	0.2703***	(13.42)
UE	+	0.0631***	(6.85)
RETSTD	+	1.3742***	(4.46)
CORR	?	0.0422	(1.26)
INDUSTRY		Control	
Adj.R^2		0.1042	
F		19.47***	
N		4,290	

Notes: *, **, and *** represent significance at the 10%, 5%, and 1% levels, respectively.

Table 4 reports the result of the tests for Hypothesis 2a. It shows that the coefficient of *NEWCAS* for the less management judgement group is -0.0125, which is not significant. However, the coefficient of *NEWCAS* for the more management judgement group is 0.2408, which is significant at the 1 per cent level. This suggests that the negative effect of the adoption of the new CAS on analysts' earnings forecasts is mainly concentrated in firms that need more management judgements. Furthermore, to examine the difference in the coefficients of *NEWCAS* between the two groups, we set a dummy variable *H*, which equals 1 for firms in the more management judgement group and 0 for firms in the less management judgement group. The dummy variable *H* and the interaction variable *H*NEWCAS* are added into Model (1).[7] The empirical results show that the coefficient of *NEWCAS* for the more management judgement group is significantly greater than that for the less management judgement group at the 1 per cent level (p-value <0.0001). These results suggest that the increase in analysts' earnings forecast errors is greater in firms using accounting policies that involve more management judgements after the adoption of the new accounting standards, and this supports Hypothesis 2a.

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[7] Please refer to the following for specific methods: "Introduction to SAS". UCLA: Academic Technology Services, Statistical Consulting Group from http://www.ats.ucla.edu/stat/sas/notes2/ (accessed 24 November 2007).

Table 4: Results of Tests for Hypothesis 2a

	Predicted Sign	Less management judgement		More management judgement	
		Coeff.	t-value	Coeff.	t-value
Constant	?	0.5092*	(1.77)	2.5194***	(4.03)
NEWCAS	+	-0.0125	(-0.45)	0.2408***	(3.96)
SIZE	?	-0.0386***	(-3.25)	-0.1832***	(-6.85)
NUM	?	-0.0060***	(-4.14)	-0.0010	(-0.26)
HORIZON	+	0.1403***	(7.88)	0.3597***	(10.83)
UE	+	0.0643***	(6.16)	0.0281**	(2.04)
RETSTD	+	0.9441***	(3.75)	1.5532***	(2.82)
CORR	?	-0.0350	(-1.32)	0.1220**	(1.97)
INDUSTRY		Controlled		Controlled	
Adj.R^2		0.0901		0.1079	
F		8.86***		10.60***	
N		2,146		2,144	
Test the difference in coefficients					
of NEWCAS between two groups		p-value < 0.0001			

Notes: *, **, and *** represent significance at the 10%, 5%, and 1% levels, respectively.

Table 5 reports the result of the tests for Hypothesis 2b. We apply a similar method to investigate the effects of the wider use of fair value accounting on the relation between the adoption of the new CAS and analyst forecast errors. Specifically, companies with a mean value of *FV* higher than the 90th percentile of the sample for the 3 years after the adoption of the new CAS are classified as the high fair value group and the others are classified as the low fair value group.[8] The results reported in Table 5 show that the coefficients of *NEWCAS* for the low fair value group and the high fair value group are 0.0933 and 0.2885, respectively, which are both significant. Furthermore, the result of the test of the difference in the coefficients of *NEWCAS* between the two groups shows that the coefficient for the high fair value group is significantly greater than that for the low fair value group at the 1 per cent level (p-value 0.0056). These results indicate that the increase in analysts' earnings forecast errors is greater for firms that use fair value accounting more widely after the adoption of the new accounting standards, which supports Hypothesis 2b.

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[8] We are grateful to two anonymous referees for providing valuable suggestions. Meanwhile, we also perform the sensitivity analysis through different grouping methods and find that the results are qualitatively the same.

Table 5: Results of Tests for Hypothesis 2b

	Predicted	Low fair value		High fair value	
	Sign	Coeff.	t-value	Coeff.	t-value
Constant	?	1.1491***	(3.22)	3.2932**	(2.15)
NEWCAS	+	0.0933***	(2.68)	0.2885**	(2.19)
SIZE	?	-0.0964***	(-6.42)	-0.2132***	(-3.30)
NUM	?	-0.0100***	(-5.23)	0.0047	(0.58)
HORIZON	+	0.2651***	(12.75)	0.3114***	(4.28)
UE	+	0.0679***	(7.09)	0.0022	(0.07)
RETSTD	+	1.3375***	(4.27)	2.5005*	(1.83)
CORR	?	0.0419	(1.24)	-0.0444	(-0.29)
INDUSTRY		Controlled		Controlled	
Adj.R²		0.1092		0.1044	
F		18.53***		2.91***	
N		3,862		428	
Test the difference in coefficients					
of *NEWCAS* between two groups		p-value = 0.0056			

Notes: *, **, and *** represent significance at the 10%, 5%, and 1% levels, respectively.

Table 6 reports the result of tests for Hypothesis 3. We divide the sample into the good institutional environment group (companies in areas with a good institutional environment) and the poor institutional environment group (companies in areas with a bad institutional environment) according to whether the legal environment index in the region where the company is located is greater than the median value of all companies.

First, we examine whether the negative effect of accounting policies that involve more management judgements on analysts' earnings forecast is more serious for firms located in a region with a poor institutional environment. Panel A reports the corresponding results. We find that the coefficients of *NEWCAS*ACC* are significantly positive for both the poor institutional environment group and the good institutional environment group and that the coefficient for the former group is significantly greater than that for the latter group (p-value 0.0093). This suggests that the negative effect of accounting policies that involve more management judgements on analysts' earnings forecast is more serious for firms located in a region with a poor institutional environment.

Second, we examine whether the negative effect of the wider use of fair value accounting on analysts' earnings forecast is more serious for firms located in region with a poor institutional environment. Panel B reports the corresponding results. We find that the coefficients of *NEWCAS*FV* are positive for both the poor institutional environment group and the good institutional environment group and significant at the 1 per cent level. Furthermore, the result for the test on the difference in the coefficients of the two groups shows that the coefficient of *NEWCAS*FV* for the poor institutional environment group

is significantly greater than that for the good institutional environment group (p-value 0.0776). These results suggest that after the adoption of the new CAS, the negative effect of the wider use of fair value accounting on analysts' earnings forecasts is more serious for firms located in a region with a poor institutional environment.

Table 6: Results of Tests for Hypothesis 3

Panel A: *ACC*	Predicted sign	Poor institutional environment		Good institutional environment	
		Coeff.	t-value	Coeff.	t-value
Constant	?	2.0422***	(4.37)	0.4382	(0.97)
NEWCAS	+	-0.0515	(-1.00)	-0.0636	(-1.42)
ACC	?	0.0196***	(2.95)	0.0269***	(4.07)
*NEWCAS*ACC*	+	0.1265***	(14.00)	0.0936***	(10.73)
SIZE	?	-0.1313***	(-6.56)	-0.0668***	(-3.67)
NUM	?	-0.0005	(-0.20)	-0.0047**	(-2.06)
HORIZON	+	0.2429***	(9.36)	0.2382***	(9.24)
UE	+	0.0694***	(5.57)	0.0586***	(5.25)
RETSTD	+	0.2729	(0.66)	0.3647	(0.95)
CORR	?	-0.0117	(-0.26)	0.0570	(1.41)
INDUSTRY		Controlled		Controlled	
Adj.R^2		0.2835		0.2497	
F		30.56***		25.35***	
N		2,167		2,123	
Test of the difference in the coefficients of *NEWCAS*ACC* between the two groups		p-value = 0.0093			

Panel B: *FV*	Predicted sign	Poor institutional environment		Good institutional environment	
		Coeff.	t-value	Coeff.	t-value
Constant	?	1.5990***	(3.10)	0.6488	(1.32)
NEWCAS	+	0.0938*	(1.77)	0.0379	(0.83)
FV	?	-0.9909	(-1.03)	0.5281	(0.82)
*NEWCAS*FV*	+	6.1288***	(5.15)	3.5984***	(4.35)
SIZE	?	-0.1199***	(-5.43)	-0.0823***	(-4.17)
NUM	?	-0.0082***	(-2.94)	-0.0099***	(-3.98)
HORIZON	+	0.2791***	(9.78)	0.2551***	(9.13)
UE	+	0.0643***	(4.68)	0.0589***	(4.87)
RETSTD	+	1.4113***	(3.13)	1.2873***	(3.13)
CORR	?	0.0063	(0.12)	0.0472	(1.08)
INDUSTRY		Controlled		Controlled	
Adj.R^2		0.1294		0.1188	
F		12.11***		10.87***	
N		2,167		2,123	
Test of the difference in the coefficients of *NEWCAS*FV* between the two groups		p-value = 0.0776			

Notes: *, **, and *** represent significance at the 10%, 5%, and 1% levels, respectively.

V. Additional Analysis and Sensitivity Tests

5.1 Additional Analysis

Apart from earnings forecast errors, the dispersion of analyst forecasts is another important measure for the degree of information asymmetry between firms and investors which is frequently used in prior studies. Therefore, we also use the dispersion of analyst forecasts as another measurement to investigate the effects of the adoption of the new CAS on firms' information environment. In general, the better the firms' information environment, namely higher transparency, the greater the amount of public information incorporated in analysts' forecasts and the higher the consensus of analysts' forecasts. Otherwise, when a firm's transparency is low, analysts have to formulate their forecasts using more subjective judgements and private information and hence analysts' consensus decreases and forecast dispersion increases. As mentioned earlier, management and ultimate shareholders have a great incentive to manipulate accounting information in China, and this may reduce information quality and transparency. Meanwhile, as accounting policies involve more management judgements, great differences may exist due to different judgement standards among different people even if earnings management is not considered, thus making it more difficult for analysts to make earnings forecasts. This will further result in more subjective judgements and private information being incorporated in analysts' forecasts and hence forecast dispersion will increase. In addition, the great fluctuation of stock prices in the capital markets will make it more difficult for analysts to forecast the earnings component, the measurement of which is based on stock prices, thus resulting in a greater dispersion of analyst forecasts. We therefore employ the following Model (4) to investigate this prediction:

$$
\begin{aligned}
DISPERSION \; = \; & \alpha_0 + \beta_1 NEWCAS + \beta_2 ASSET + \beta_3 NUM \\
& + \beta_4 HORIZON + \beta_5 UE + \beta_6 RETSTD \\
& + \beta_7 CORR + INDUSTRY + \varepsilon,
\end{aligned}
\tag{4}
$$

where the dependent variable *DISPERSION* measures the dispersion of analyst forecasts, defined as the standard deviation of all earnings forecasts that are issued by all of the analysts following the firm. All of the other variables are as defined in Model (1). If the coefficient of *NEWCAS* in the above model is positively significant, it indicates that the adoption of the new CAS increases the dispersion of analyst forecasts.

Table 7 reports the corresponding results. We find that the coefficient of *NEWCAS* is significantly positive, which indicates that the adoption of the new CAS increases the dispersion of analyst forecasts.[9] This result further supports the main conclusion of

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[9]   The main reason for the decrease in the sample is that at least two analysts' earnings forecast records should be included when the dispersion of analyst forecasts is calculated. In addition, in the sensitivity test, we also replicate Model (4) by excluding companies with fewer than three following financial analysts. Similar to the results in Table 7, the coefficient of *NEWCAS* is 0.0170 (t-value 3.16), which is significant at the 1 per cent level.

this study, namely that the adoption of the new CAS has a negative effect on, instead of improving, the information environment of capital markets.

Table 7: Effect of the Adoption of the New CAS on the Dispersion of Analysts' Forecasts

	Predicted sign	Coeff.	t-value
Constant	?	-0.3233***	(-6.34)
NEWCAS	+	0.0110**	(2.32)
SIZE	?	0.0066***	(3.34)
NUM	?	0.0025***	(10.17)
HORIZON	+	0.0382***	(9.45)
UE	+	0.0102***	(7.57)
RETSTD	+	0.1268***	(3.03)
CORR	?	0.0066	(1.44)
INDUSTRY		Controlled	
Adj.R^2		0.1537	
F		22.50***	
N		3198	

Notes: *, **, and *** represent significance at the 10%, 5%, and 1% levels, respectively.

5.2 Sensitivity Tests

To provide additional assurance of the robustness of our results, we also perform the following sensitivity tests:

1. The change in analysts' earnings forecast errors around 2007 may have been caused by changes in the accounting standards or other macro-economic factors. If the latter explanation dominates, then we should find that analysts' earnings forecast errors clearly increase in the sample not or less affected by the changes in accounting standards. To exclude the possibility that the results in this paper are driven by macro factors, we replicate our tests using the sample firms with B shares or H shares. As firms with B shares or H shares adopted the IFRS before 2007, the influence of the adoption of the new CAS on those companies should be slight. If the changes in macro factors are the main reason for the increase in the errors in analysts' earnings forecasts, we can still find that errors in analysts' forecasts on firms with B shares or H shares increase after 2007. Otherwise, we can document that the adoption of the new CAS is one of the major reasons for the increase in analysts' earnings forecast errors. Therefore, we investigate the changes in analysts' earnings forecast errors for firms with B shares or H shares before and after the adoption of the new CAS. The results show that analysts' earnings forecast errors do not increase significantly for firms with B shares or H shares. We argue that this result suggests, to some degree, that the adoption of the new CAS may be one

major reason for the increase in analysts' forecast errors and that the conclusion of this study cannot be fully explained by changes in other market factors.

2. To address the possible concern that our results are driven by the change in the sample before and after the new CAS period, we replicate our main tests using a sample of companies which are followed by analysts both before and after the adoption of the new CAS. The results are qualitatively the same.

3. As the financial industry is very different from other industries in various respects, including firm size, regulatory environment, and accounting treatment, we exclude this industry from the sample in our main tests. However, fair value accounting is usually adopted more widely in the financial industry, and so we also perform a sensitivity analysis on a sample including the financial industry. We find that the results are qualitatively the same.

4. The analysts' earnings forecast errors in the main tests are standardised by |*EPS*|. However, some companies' |*EPS*| is very small and the standardised forecast errors will be very great, especially when |*EPS*| is close to 0, which leads to a high standard deviation of forecast errors and extreme value. To reduce the effect of potential outliers, we winsorise all of the continuous variables at the 5th and 95th percentiles. To make the results more robust, we also perform the following sensitivity analysis: (1) winsorise *FERROR* at the 5th and 95th percentiles and the other variables at the 1st and 99th percentiles, respectively; (2) delete the samples with an |*EPS*| close to 0 to avoid the potential problem caused by a small denominator. Specifically, we exclude companies with the smallest |*EPS*| at the bottom 5 per cent of the sample. We find that the results are qualitatively the same as our main results.

5. We also control for the size of the brokerage to which each analyst belongs in the base model. Specifically, we measure, in respect of a specific company, the size of the brokerage using the mean value of the total assets or sales of the brokerage to which following analysts belong.[10] We find that there is no material change in the main results after controlling for brokerage size.

6. To control for the effect of the individual characteristics of analysts, we use a stricter process to select the final sample. Specifically, we require that financial analysts are unchanged before and after the adoption of the new CAS. This sample selection process ensures that our tests have compared the change in earnings forecast errors made by the same analyst group and hence control for the effect of the individual characteristics of analysts (i.e. individual experience) as far as possible. We find that except for the difference in the coefficients of *NEWCAS* between the low fair value group and the high fair value group (p-value 0.4531), which is insignificant,[11] the other results remain unchanged.

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[10] As there is no financial data of brokerages before 2007, we use the mean of the total assets or sales of brokerages during the period between 2007 and 2009 to measure the size of brokerages. We also eliminate a few samples due to missing data and obtain 4,002 observations in the final sample.

[11] One possible reason may be that the samples are fewer than those used in the main analysis of this paper (only 1,225 observations left after the sample selection process).

7. The positive and negative values of the variable *FV* in various classification items may offset each other. To exclude the influence of this situation, we hand collect detailed profit and loss information from the fair value changes of firms during the period from 2007 to 2009 and redefine *FV* as the summarised absolute value of various classification items. The results remain unchanged.

8. We also perform the following sensitivity tests for Hypothesis 2b. First, divide the sample into three groups. Specifically, companies with a mean value of *FV* higher than the 90th percentile of the sample in the 3 years after the adoption of the new CAS are classified as the high fair value group, while those with $FV > 0$ are classified as the low fair value group and the rest, with a FV equal to 0, are classified as the "zero fair value" group. The results show that the coefficients of *NEWCAS* are significantly positive in all of the groups. Moreover, the coefficient is highest in the high fair value group. We also find that the differences in coefficients between the zero fair value group and high fair value group and between the low fair value group and the high fair value group are both significant, while that between the zero fair value group and the low fair value group is not significant. Second, companies with a mean value of *FV* higher than the 80th percentile of the sample in the 3 years after the adoption of the new CAS are classified as the high fair value group and the rest are classified as the low fair value group. The results show that the coefficient of *NEWCAS* in the high fair value group is significantly greater than that in the low fair value group at the 10 per cent level.

9. As 2007 was the first year that the new CAS was implemented, analysts may not have been familiar with it. As a result, we exclude the 2007 sample to perform a sensitivity test. The results remain unchanged.

10. Our main sample only includes analysts' last earnings forecasts before the earnings announcement date in the forecast year. As a robustness check, we also replicate our test with the sample including all analysts' earnings forecasts in the forecast year. The results remain unchanged.

VI. Conclusion and Limitation

6.1 Conclusion

This paper examines the effects of the adoption of the new CAS on firms' information environment in China by investigating the changes in the properties of analysts' earnings forecasts. We find that analysts' earnings forecast errors increase after the adoption of the new CAS, especially for firms using accounting policies that involve more management judgements and for firms that use fair value accounting more widely. Furthermore, we find that the magnitude of the increase in forecast errors after the adoption of the new CAS is larger for firms located in regions with a poor institutional environment. Additional tests reveal that the dispersion of analyst forecasts also increases

after the adoption of the new CAS.

The results of this paper indicate that, to some degree, the information environment of companies worsens and information transparency decreases after the adoption of the new CAS. This conclusion is opposite to similar studies based on mature capital markets. We document that there are several possible explanations for this phenomenon. The application of the new CAS offers management more subjective discretion in their judgements on accounting policies under China's institutional environment. Larger shareholders and management may use this opportunity to manipulate earnings, resulting in a decrease in the reliability of accounting information. Besides, if accounting policies involve more management judgements, it is more difficult for analysts to forecast earnings due to the great differences in judgement standards between different people, even if earnings management is not considered. In addition, with the great fluctuation in stock prices in Chinese capital markets in these years, it is difficult to predict the earnings components relevant to fair value accounting, the measurement of which is based on stock prices (i.e. financial assets), and this also increases analysts' forecast errors.

The results of this paper highlight the important roles of institutional environment and firm-level reporting incentives in determining the impact of the adoption of the new CAS. The new CAS is a strong weapon as it introduces more management judgements on accounting policies and the wider use of fair value accounting. If protection is given from a good legal system and sound market environment, more transparent and reliable information can be offered to investors and the information environment of the capital market can be improved. However, without such protection, the adoption of the new CAS may have a negative effect on earnings quality and firms' information environment. Therefore, in order to improve the effect of implementing the new CAS, efforts should not only be made at the specific technical level (including training on the new CAS), but also at the more fundamental level by improving the legal environment, the relevant punishment system, and the external environment of the whole capital market. With these efforts, the implementation of the new CAS could achieve fundamentally better results.

6.2 Limitations

The two caveats of this paper are as follows:

First, although we try to exclude the influence of changes in the macro environment on analysts' forecast errors as far as possible in our research design and robustness test, we realise that it is impossible to completely get rid of the influence of this factor due to the complexity and great difficulty of quantifying the macro environment.

Second, the samples in this paper only account for 50 per cent of all of the listed firms between 2004 and 2009. Owing to this limitation, we caution that our results may lack representativeness or may only be relevant to certain companies. It is found that the distributions of industries are similar between samples with analyst following and samples without analyst following. However, the firm size and accounting performance

of companies with analyst following are larger and better than those without analyst following, respectively. Meanwhile, state-owned companies have a greater analyst following than private firms. Therefore, due to the limitations of the data, the conclusions in this paper may be more appropriate for larger size companies with better performance.

References

Please refer to pp. 137-140.