

The Effects of the Existence and Financial Expertise of Audit Committees on Firms' Controversial Activities—Evidence From IPOs

Ji Yu

Yang Xu

*Joseph H. Zhang**

I. Introduction

Regulators and major stock exchanges have been increasingly concerned with the role of the audit committee in an initial public offering (hereafter IPO). However, due to different views on the benefit and cost of the audit committee, there are inconsistencies in the rules mandating the audit committee for the IPO. The extant research focuses on the role of audit committees in mature firms (e.g., Klein, 2002a, 2002b; Abbott et al., 2003, 2004; Zhang et al., 2007). Few studies investigate its role in newly listed firms. Nevertheless, firms in the IPO process behave differently when they become mature firms (Gertner and Kaplan, 1996; Cecchini et al., 2012), which calls for more studies to develop a deeper understanding of the audit committee's role in the IPO process. We aim to shed light on how the audit committee functions in the IPO setting by examining the relationship between the composition of an audit committee and the IPO firm's ethical behaviors.

Our study also aims to directly address regulators' concerns toward the necessity of requiring IPOs to have audit committees when they are first listed on the exchange. On August 22, 2013, the SEC approved the proposed rule changes by the NYSE to provide a one-year transition period for IPOs to establish a fully independent audit committee. In fact, the passage of the new rule in the NYSE also caused controversial arguments. On one hand, the NYSE believes that providing a one year transitional period for IPOs to establish their internal audit function would benefit investors by making companies' internal audit function more effective. More importantly, proponents of this transitional period rule expect a reduced initial accounting cost in its first year as a public company. On the other hand, authorities such as the Institute of Internal Auditors (hereafter IIA) express concerns regarding the detrimental effect of relaxed regulations, as the IIA did in its comment letter to the SEC.^{1,2} In conclusion, these inconsistent beliefs call for further studies to develop a thorough understanding of the audit committee's role in the IPO setting.

* The authors are, respectively, Assistant Professor at State University of New York at New Paltz, University of Colorado at Colorado Springs, and University of Memphis.

¹ IIA opposed the Exchanges' "one year transition" rule change because it will relax an important governance requirement. In addition, IIA stated that since IPOs typically upgrade their accounting systems and internal controls and hire additional staff to meet the greater demands placed on public companies, an internal audit function would assist the board and senior management in assessing these critical systems and internal controls.

² NASDAQ had previously proposed to require listed companies to have an internal audit function similar to NYSE's requirement prior to the change being approved in this order. However, on May 7, 2013 NASDAQ withdrew its proposal. NASDAQ stated it was withdrawing its proposal so that it may fully consider the comments submitted on it, but that it "...remains committed to the underlying goal of the proposal, to help ensure that listed companies have appropriate processes in place to assess risks and the system of internal controls, and intends to file a revised proposal."

Prior studies mainly focus on studying the audit committee's role in a financial reporting setting. In this article, we are interested in studying the audit committee's impact in a non-financial setting—corporate social responsibility (hereafter CSR) activities. More specifically, our research motivation (answering regulatory concerns about IPOs) leads us to study the IPO market. Starting from the past decade, investors and regulators have placed an increasing value on firms' non-financial performance toward the environment and on the integral relationship between business and society. In response, firms have initiated many CSR activities. For example, by 2004 about ninety percent of the Fortune 500 companies had explicit CSR initiatives (Kotler and Lee, 2004). This trend is seen in new firms as they seek capital. The majority of IPOs have some level of disclosure in S-1 filings related to CSR activities.³ For IPOs, not only has disclosure of CSR activities become the trend, practitioners such as PwC advocate the importance of CSR performance of IPOs. They further indicate that leadership's CSR agenda can significantly boost investor confidence in the company's overall plan in the IPO roadshow, that IPOs can optimize their capital-raising efforts by identifying and mitigating CSR-related risks.

Practitioners' observations of the importance of CSR activities are consistent with academic research. Dhaliwal et al., 2011, show that firms initiating CSR disclosure with superior performance attract dedicated institutional investors and financial analysts. Those attentions then translate to a higher likelihood of seasoned equity offerings (hereafter SEOs) and a larger amount of SEOs proceeds. Consistently, Chong and Liu (2014) show that equity demand (including IPOs and SEOs) is positively associated with CSR strengths and negatively associated with CSR concerns. Moreover, Lys et al., 2015, show that CSR performance or expenditures is an informational signal and contains unique information that other signals cannot represent. They indicate that it is management's private information regarding the firms' future prospects. Their logic is that managers who are more optimistic about recent future firms' financial conditions are more likely to invest more in current CSR activities. Thus, the level of current period's CSR activities represents managers' judgment about firms' future prospects.

In the IPO setting, the unique private information contained in CSR activities would signal to future stock offerings. Thus, the potential positive effect of CSR performance on future capital provision leads management to pay special attention to the IPOs' CSR performance. Moreover, board oversight is implemented through its committees, mainly the audit committee (Chahine and Filatotchev, 2011). Thus, the audit committee is the intermediary and executor to assure board management's policies on CSR implementation. This logic becomes even more persuasive when other committees are not fully established and the audit committee is primarily in charge of risk management, which is more likely in IPO market.⁴ We thus expect that the audit committee would play an important role in impacting IPOs' CSR performance.

To summarize: there are two links that connect the audit committee with IPOs' CSR performance. The first link is the audit committee's "compliance" role. In practice, many firms' audit committees have the principal responsibility for monitoring compliance with internal regulations (including CSR policies) and ensuring the overall effectiveness of firms' internal controls. In the IPO setting, very few IPOs have other corporate governance committees established while the majority of IPOs have audit committees. We argue that the audit committee for a new listed firm plays an extension or complimentary role at the early stage of the firm to assure managers' compliance with the internal CSR policies, regulations, and laws.

The second link is the audit committee's "gaining attention" role. The KPMG Sustainability and Corporate Social Responsibility (2008) report argues that an audit committee not only serves as a safeguard of firms' financial reporting quality, but such a committee also ensures that CSR issues receive

³ According to PwC (2011), eighty-four percent of the new IPOs have some level of disclosure in S-1 filings related to sustainability and corporate social responsibility.

⁴ The majority of IPOs (89.7% of IPOs in our sample) have audit committees. Other committees are much less likely to be established for IPOs. For example, a PwC 2013 report "Governance for companies Going Public" shows that only two percent of the IPOs have CSR committees when they are first listed on the exchange.

enough attention from board members and management.⁵ KPMG suggests that “corporate responsibility is better integrated into governance and risk management functions,” which fall into the domain of audit committees’ authority. Similarly, Ernst & Young recently conducted a global survey of 163 institutional investors where more than half of the respondents expressed that a company’s non-financial performance should have audit committee oversight.⁶ Thus, the “gaining attention” role of audit committee renders the relationship between audit committee and CSR activities.

We further expect that the audit committee would differentiate its role on controversial activities from CSR strengths. The audit committee is more concerned with downside risk than establishing a reputation due to its risk-averse nature. The high litigation cost in the post-IPO period also leads to the audit committee’s asymmetric focus on controversial activities (Lowry and Shu, 2002; Chahine and Filatotchev, 2011; Lin et al., 2013). Alternatively, this asymmetric role of the audit committee may exist because of asymmetric cost and benefit of “bad activity” and “good activity”. It usually takes longer to establish a favorable CSR strengths image, while controversial activities can ruin a firm’s reputation immediately. We thus expect that the audit committee is more efficient at constraining IPOs’ controversial activities than improving IPO’s public image.

We examine the relation between IPO firms’ CSR activities and the audit committee’s characteristics at IPOs from two perspectives: 1) the existence of the audit committee; and 2) the financial expertise (FE) on the audit committee (broadly-defined FE or narrowly-defined FE). Our sample includes 281 U.S. IPO firms during the period of 2001–2010. We hand-collect audit committee information from the offering prospectus (S-1 files). In our sample, 89.7% of IPO firms have an audit committee at the time of IPOs, fifty-seven percent of the sample has narrowly defined audit committee FE, and eighty-nine percent of the sample has broadly defined audit committee FE. The CSR information is collected from the KLD database. We constitute CSR scores—our dependent variable, from three dimensions: 1) the CSR net score is a proxy for firms’ net reputation for CSR activities; 2) the controversial activities are the proxy for firms’ engagement in unethical behaviors which will impair firms’ reputation; and 3) the positive public image is a proxy for firms’ engagement in positive and ethical behaviors which will improve firms’ reputation.

We find that the existence and FE of the audit committee have a positive impact on IPO firm’s social performance. First, our results show that audit committee existence and FE at IPOs are positively associated with the net CSR score. Second, we find a strongly negative relation between IPOs’ controversial activities and both the existence and FE of audit committee, suggesting that the existence and strength of audit committees can restrain IPO firms’ unethical behaviors. However, our additional test shows that the relation between the audit committee and IPO’s public image is weaker. We conclude that the asymmetric role of the audit committee in constraining controversial activities and improving public image is due to the audit committee’s risk-averse nature and the payoff difference of “good activities” and “bad activities”.

The extant literature focuses on studying the audit committee’s role in more established firms (e.g., Klein, 2002a, 2002b; DeFond et al., 2005). Very little research examines the audit committee’s role in the IPO market. Among those “very few” studies, most of them investigate the financial benefit of the audit committee. For example, Bédard et al., 2008, show that audit committee FE is related to lower IPO first day initial return. Our study aims to document the non-financial impact of the audit committee in the IPO market. To the best of our knowledge, our paper is the first study to document the CSR performance benefit of the audit committee in the IPO market. By filling this research gap, we develop a deeper understanding of the audit committee’s non-financial role in the IPO market. We show the evidence that

⁵ http://www.kpmg.com/EU/en/Documents/KPMG_International_survey_Corporate_responsibility_Survey_Reporting_2008.pdf

⁶ http://www.ey.com/GL/en/Services/Specialty-Services/Climate-Change-and-Sustainability-Services/EY-Tomorrows-investment-rules-a-global-survey#.VBcl9xY8_JM

audit committees play a beneficial role in impacting IPOs' CSR activities. More importantly, we show that audit committees are concerned more by the downside risk of IPOs than the upside reputation. Our results also render policy implications when regulators such as NYSE and NASDAQ consider the cost and benefit related to mandating an audit committee for IPOs.

The remainder of this paper is organized as follows. Section II reviews the literature and develops hypotheses. Section III demonstrates the research design. Section IV describes the sample and presents empirical results, and Section V concludes.

II. Literature Review and Hypothesis Development

A. Relation to the Existing Literature

1. Corporate Social Responsibility

There is a growing body of literature on corporate social responsibility. Ethical and political theories argue that managers have incentives to “do the right things” (Matten and Crane, 2005). Trusting, cooperative, and altruistic behaviors give a firm a competitive advantage, and firms engaging in these behaviors survive and usually thrive in an industry (Jones, 1995). Kim et al., 2012, find that socially responsible firms are less likely to manage earnings or manipulate real operating activities, and less likely to be subject to SEC investigations. Koh and Tong (2013) find that clients with more controversial corporate activities are perceived to be more risky and thus are associated with higher audit risk. They also show that firms that engage in controversial activities tend to incur higher levels of abnormal accruals and are more likely to receive going-concern audit opinions. Cho et al., 2013, show that CSR performance is related to a lower level of information asymmetry. Dhaliwal et al., 2014, find a negative association between CSR disclosure and the cost of equity capital. Elliot et al., 2014, observe a positive effect of CSR performance on investors' estimate of fundamental value. They show that the effect is attenuated if investors do a thorough financial statement analysis.

Another stream of research, such as instrumental approach in the stakeholder theory, indicates that managers consider other stakeholders' benefits because they consider it as an instrument to increase financial performance (Donaldson and Preston, 1995; Berman et al., 1999). For example, McWilliams et al., 2006, argue that managers use CSR to achieve their personal career goals and self-interested benefits. Petrovits (2006) suggests that managers strategically use contributions to philanthropy to meet financial reporting objectives. Prior et al., 2008, find that regulated firms with high CSR are associated with higher earnings management. Both streams of research document the consequences of CSR activities, whilst we have limited knowledge about the impact of firms' CSR activities, particularly in the IPO setting.

Recently, practitioners have begun to pay attention to the importance of CSR activities for IPOs. For example, PwC's report (2011) shows that eighty-four percent of the new IPOs have some level of disclosure in S-1 filings related to sustainability and CSR activities.⁷ PwC further suggests that “In the IPO roadshow, leadership's preparation around the sustainability agenda can significantly boost investor confidence in the company's overall plan. Companies can optimize their capital-raising efforts by identifying and mitigating sustainability-related risks and unlocking the value of sustainability-related opportunities.” The increasing importance of CSR activities in the IPO market calls for more studies on this topic.

2. The Audit Committee and IPO Research

Prior research generally concludes that the audit committee's monitoring role improves financial reporting quality and generates positive public perceptions. For example, Klein (2002a) shows that the audit committee FE is effective in reducing earnings management. Bédard et al., 2004, find a significant

⁷From PwC “Factoring Sustainability into IPO planning” (2011). See link at: http://www.sustainablebrands.com/digital_learning/research/factoring-sustainability-ipo-planning

relationship between earnings management and audit committee expertise and independence. DeFond et al., 2005, find that there is a positive market reaction to the appointment of accounting experts to audit committees (i.e., three-day abnormal returns around the appointment). Bryan et al., 2013, further show that only optimal choices of accounting expertise on audit committees can improve earnings quality. They argue that suboptimal choices of accounting expertise on audit committees cannot improve earnings quality but may reduce it.

Other studies examine the audit committee's impact from an auditing practice perspective. Carcello and Neal (2003) find that audit committees with greater independence, greater governance expertise, and a lower percentage of stockholdings are more effective at protecting auditors from dismissal following the issuance of new going-concern reports. Abbott et al., 2004, show that audit committee characteristics generally are negatively associated with financial reporting restatements. They systematically examine the efficacy of certain Blue Ribbon Committee recommendations, and find that the independence and the number of meetings of audit committee are negatively associated with the occurrence of financial restatements. In addition, they find that audit committees with less financial expertise tend to have higher occurrence of financial restatements. Aier et al., 2005, find a negative relation between the incidence of financial restatements and the CFO's financial expertise (such as working experience of CFO, MBA degree, and CPA certification). Their results support Blue Ribbon Committee (BRC)'s recommendation that NYSE and NASDAQ should require first time listed firms to have audit committee FE. Zhang et al., 2007, find a negative relation between accounting financial expertise and internal control weakness by examining matching samples in the post-SOX period. Vefas and Waegelein (2007) show that audit committee size, committee member expertise, and committee member independence are positively associated with audit fee levels, and that the audit committee serves as a complement to external auditors in monitoring management. Overall, the above studies document the positive impact of the audit committee FE on auditing.

In general, researchers have focused on studying the "monitoring" role of mature firms' audit committees, while few studies investigate the role of audit committees for start-up firms (such as IPOs). Researchers know little about the role of audit committees when firms are new to the capital market. Two papers are most relevant to our topic. Bédard et al., 2008, find a negative relationship between audit committee FE and IPO underpricing by examining Canadian IPOs.⁸ They suggest that audit committee FE is a signal of good corporate governance to the market and thus reduces the information asymmetry during the IPO process. Their results also show that audit committee FE can increase the accuracy of managers' earnings forecasts. Agrawal and Cooper (2010) document that directors' FE, such as CPA or CFA, can reduce the occurrence of earnings restatements for IPO firms. Our study diverges from prior studies by investigating the non-financial impact of the audit committee in the IPO context. Particularly, we choose to study the CSR performance of IPOs, as CSR performance is gaining popularity as a criterion among investors.

B. Hypothesis Development

Most prior studies document the positive effect of the audit committee on improving firms' financial reporting quality (Klein, 2002a, 2002b; DeFond et al., 2005; Kim et al., 2012). We extend its positive effect from a financial reporting context to a non-financial reporting context. We argue that there are two major roles that the audit committee can play to increase IPOs' CSR performance.

The first role is the audit committee's "compliance" role. The audit committee plays a "watchdog" role, overseeing the overall risk management of the company, and its oversight boundary is not limited to financial reporting. A recent discussion of the audit committee's role indicates a trend of role expansion among audit committees. Regulators such as the Institute of Internal Auditor (IIA) indicate that internal audit's function should include reviews of both the financial and non-financial risk of the firms. A survey

⁸ IPO underpricing refers to the phenomenon that the IPO first day closing price is usually higher than the initial price listed in prospectus S-1 file (Beatty and Ritter, 1986).

from Ernst & Young echoes this trend by showing that majority of audit committee chairs think the audit committee's risk management role as a broad process should be extended to the non-financial areas, such as customer relations, health, safety, and environmental protection, etc. In practice, many firms' audit committees have the principal responsibility for monitoring compliance with internal regulations and assuring the overall effectiveness of the firms' internal controls. For instance, a NYSE-based company, British American Tobacco, specifically requires that the audit committee's role include monitoring compliance with the firm's CSR and sustainability protocols. Likewise, Hewlett-Packard requires its audit committee to supervise the ethics committee's compliance activities. Few IPOs have CSR committees, while the majority of IPOs have audit committees when they are first listed on the exchange.⁹ We argue that the audit committee for a newly listed firm plays an extension or complimentary role at the early stage of the firm to ensure managers' compliance with the internal CSR policies, regulations, and laws.¹⁰ Hence, favorable attributes of the audit committee lead to higher IPOs' CSR performance.

The second role bridging the audit committee and IPO controversial activities is the audit committee's "gaining attention" role. A 2008 KPMG report shows that the audit committee ensures CSR issues receive significant attention from board members and management. Specifically, the report argues that "ecological, social, and reputational risks need to be viewed as potentially important elements of risk assessment in a company. The audit committee can be a catalyst in helping to ensure that these issues are getting sufficient agenda time and attention by the company." This "gaining attention" role thus leads favorable actions toward the firms' compliance with ethical corporate social activities. Likewise, Ernst & Young's recent global survey shows that the most respondents express that a company's non-financial performance should have audit committee oversight. In addition, Chong and Liu (2014) show that equity demand is positively associated with CSR strengths and negatively associated with CSR concerns. Dhaliwal et al., 2011, show that firms initiating CSR disclosure with superior performance attract dedicated institutional investors and analyst coverage. For the board and top management, the possible easiness of future SEOs is an important factor that they may consider when they direct the audit committee to oversee the IPO's CSR performance. Because of the positive effect of CSR performance on future capital raising, audit committee would have even stronger incentives to improve IPOs' CSR performance. Taken together, we expect that the existence of the audit committee at IPO is associated with higher IPO's CSR performance.

The literature generally shows that the financial expertise of committee members makes the audit committee's monitoring role more effective in providing assurance on financial reporting rules and regulations (Abbott et al., 2003, 2004; Aier et al., 2005).¹¹ The financial expertise of committee members

⁹ The CSR committee is designed as the major regulation body to ensure that public firms comply with sustainability standards. However, the 2013 PwC report "Governance for Companies Going Public" shows that only two percent of the IPOs have CSR committee when they are first listed on the exchange. Compared with the high percentage of audit committee establishment in the IPO, we believe that audit committee's expansion role of monitoring CSR activities is important for public firms' CSR performance.

¹⁰ Note that we do not argue that the strength of this extension or complimentary role will always be constant. On the contrary, we expect that the role may (or may not) decrease when IPOs become mature and other governance committees (e.g., the CSR committee) are established. Restricting our sample within two years in the post-IPO period allows us to keep our sample neat and differentiate the audit committee's "special" roles in the IPO period from the later post-IPO period.

¹¹ The literature finds different results about the role of broadly defined financial expertise and narrowly defined financial expertise in the capital market. A number of studies demonstrate that firms with narrowly defined FE serving on the audit committee increase financial reporting integrity (Abbot et al., 2004; Farber, 2005; Dhaliwal et al., 2010). However, research provides inconsistent evidence on the effectiveness of broadly defined FE in improving financial reporting quality (Carcello and Neal, 2003; Park and Shin, 2004; DeFond et al., 2005; Goh, 2009). Although Goh (2009) finds that audit committees with greater non-accounting FE remediate internal control material weakness more rapidly, several other studies fail to provide evidence that FE under the broad definition

equips them with more experience and skills to assure compliance with internal rules and regulations, and makes them more effective in assuring compliance with the CSR policies. We expect that the financial expertise of audit committees in IPO firms can serve a better monitoring role by further increasing the CSR. We form our first hypothesis as follows:

H_{1a}: The existence of a designated audit committee at an IPO is positively associated with the IPO firm's CSR performance.

H_{1b}: Financial expertise of the audit committee at an IPO is positively associated with the IPO firm's CSR performance.

The audit committee's innate nature is risk management ruler and risk-averse "financial police," which make the audit committee sensitive to the downside risk, particularly the involvement of controversial activities, during the IPO and in the post-IPO period. Anecdotal evidence shows that controversial issuers pay a high price for involvement in the controversial activities. The Toys 'R' Us IPO was delayed five times over a period of two years by CSR concerns about the firm's sale of toxic PVC toys. Since the firm first filed its S-1 registration with SEC in 2010, various special interest groups have campaigned vigorously against Toys 'R' Us and discourage the investing groups from participating in the firm's IPO. Not only does the downside risk in pre-IPO matter for issuers, prior literature also shows that downside risk in the post-IPO period is an important concern for issuers and the related third certified parties such as external auditors and investment banks. Lowry and Shu (2002) show that litigation issues have prohibitively high costs. Close to six percent of new issuers were sued for violations related to IPOs' financial reporting information during the period of 1988 to 1995, with the cost of 13.3% of IPO proceeds. Chahine and Filatotchev (2011) conclude that an active audit committee is able to monitor the quality of information provided in the IPO prospectus and reduce the litigation-related concerns. Lin et al., 2013, show that issuers are willing to engage in intentional IPO underpricing in order to reduce the likelihood and magnitude of legal liability claims in the post-IPO period. The high price of engagement in controversial activities would lead management to pay special attention to the downside risk of the IPO. A firm's engagement in controversial activities is considered one of the typical downside risks by external auditors (Koh and Tong, 2013). Thus, the audit committee would have a strong incentive to restrain the downside risk of the issuers. Consistently, we expect that a competent and well-structured audit committee is effective in constraining controversial activities in the post-IPO period.

We also expect that the audit committee's positive role is more effective in restraining controversial activities while relatively less effective in increasing IPOs' public image. This asymmetric role is due to the fact that a favorable image takes much longer to establish or due to the asymmetric innate risk-averse nature of the audit committee, or both. Similar with H_{1b}, we expect that the financial expertise of the audit committee plays a more effective role in monitoring IPOs' controversial activities than simply establishing an audit committee. Financial expertise background of committee members makes them more effective in assuring the IPOs' compliance with the CSR policies and receiving sufficient attention to controversial activities from top management. Consistent with the logic in H_{1b}, we expect that the financial expertise of audit committee helps restrain IPO's controversial activities. Thus, we make our second hypothesis as follows:

H_{2a}: The existence of a designated audit committee at an IPO is negatively associated with the IPO firm's controversial activities.

H_{2b}: Financial expertise of the audit committee at an IPO is negatively associated with the IPO firm's controversial activities.

positively influences audit committee effectiveness (Carcello and Neal, 2003; DeFond et al., 2005; Krishnan and Visvanathan, 2008).`

III. Research Design and Variables

A. Measures of Main Variables

Koh and Tong (2013) use total concerns score from Kinder, Lydenberg, and Domini Research and Analytics (KLD) to identify firms' involvement in controversial activities. KLD rates each firm's social actions along broad dimensions: community relations, diversity, employee relations, environmental issues, product, corporate governance, alcohol, gambling, military contracting, nuclear power, and tobacco. Kim et al., 2012, identify five dimensions of CSR that are considered highly correlated with firms' manipulated financial reporting and misconduct. Following Kim et al., 2012, and Koh and Tong (2013), we identify firms' controversial activities through the following five dimensions: community relations, diversity, employee relations, environmental issues, and product. We do not consider the remaining dimensions since these dimensions are less likely related to audit committee's responsibilities. Specifically, we measure the involvement in controversial activities by aggregating the binary ratings of each measure in the five given dimensions.

Following Kim et al., 2012, our controversial activities also do not include the corporate governance dimension, since we aim to disentangle and separate the effect of corporate governance. Instead, we add corporate governance as a control variable in regression models.¹² We capture the involvement in controversial activities by cumulating the binary ratings of each measure in the five given dimensions. The total concerns (*Tconcerns*) can take on values from zero to five for each firm-year observation. The public image measures and CSR score include the same five dimensions from KLD as our controversial activity measures. Total strengths (*Tstrengths*) is a proxy for a firm's good public image.¹³ We construct the CSR score as total strengths minus total concerns (e.g., Johnson and Greening, 1999; Kim et al., 2012).

We follow Naiker and Sharma (2009) and Ettredge et al., 2014, to measure variables related to audit committees. For audit committees existing at IPOs, we code audit committee existence (*AC Existence*) equal to one if the IPO firm has a designated audit committee when it is first listed on a stock exchange, and zero otherwise. Audit committee members' financial expertise falls into one of the following categories: 1- specific accounting experience as a CPA or in public accounting; 2- work experience as a chief financial officer, vice-president of finance, or controller; 3- work experience as an investment banker, financial analyst, venture capitalist, or any other financial management roles; and 4- work experience as a chief executive officer or company president.

We code a narrow definition of accounting financial expertise (*AC Expertise_N*) equal to one if an audit committee member has experience in either category 1 or 2, and zero otherwise. While the SOX originally proposed a narrow definition of financial expertise for audit committee members (Krishnan, 2005; Krishnan and Visvanathan, 2008), the SEC and major U.S. stock exchanges chose a broader definition of financial expertise. The broader definition includes accounting expertise, any experience in supervising employees with financial responsibilities, or experience overseeing the performance of companies. We code the broad definition of financial expertise (*AC Expertise_B*) equal to one if an audit committee member has experience in categories 1, 2, 3 or 4.

¹² Koh and Tong (2013) document that good corporate governance has a negative association with controversial activities. Following Kim et al., 2012, we measure corporate governance using a net score of KLD's corporate governance ratings.

¹³ KLD provides ratings (either a zero or one) for a number of "strengths" (positive CSR policies) and "concerns" (negative CSR policies). For example, in the area of "employee relations", KLD assigns one for the "Health and Safety Strength" if a firm has strong health and safety programs, and zero otherwise. In the area of "environment", KLD assigns one for the "Regulatory Problems Concern" if a company has paid fines or civil penalties for violations of air, water, or other environmental regulations, and zero otherwise.

B. Models and Control Variables

Accounting and management research have documented a variety of determinants of firms' CSR performance. Corporate governance quality is considered an important determinant of CSR performance. Walls et al., 2012, find that firms with stronger corporate governance tend to have better environmental performance. We thus include a corporate governance control measured by KLD's corporate governance net score rating in our model. Management literature has heavily documented that CEO characteristics, specific board characteristics, and institutional ownership are associated with firms' CSR performance (e.g., Coffey and Fryxell, 1991; Graves and Waddock, 1994; Ibrahim et al., 2003; Webb, 2004). For instance, Webb (2004) shows that firms with better CSR performance are associated with better corporate governance practices such as a higher proportion of independent directors and a lower probability of CEO-chairman duality. In addition, Coffey and Fryxell (1991), and Graves and Waddock (1994) show that a higher level of institutional ownership is associated with better CSR performance. Studies find contradictory results about the impact of board size. Kassinis and Vafeas (2002) find that board size is positively associated with environmental litigation, while Brown et al., 2006, show that it is positively associated with corporate philanthropy. Taken together, we include CEO power, board size, board independence, and institutional ownership as controls in our model. Specifically, CEO power is measured as the sum of four CEO-related indicator variables: CEO shareholding, CEO tenure, CEO duality, and CEO as a founder or not.¹⁴ Board size is the number of board members at the IPO. Board independence is measured as the percentage of independent board members at the IPO. Institutional ownership is measured as the percentage of shares held by institutional investors at the IPO.

With regard to other control variables, we include Altman's Z-score in regression models to represent a firm's operational risk (Agrawal and Cooper, 2010). Altman's Z-score is a measure of the probability of bankruptcy, with a lower value indicating greater financial distress. We calculate it for manufacturing firms following Hillegeist et al., 2004, and for non-manufacturing firms following Altman (2000), respectively. Agrawal and Cooper (2010) examine the probability of financial restatement by newly public firms, and they indicate that a study of IPO firms that restate earnings soon after going public provides a different type of evidence that complements prior studies of earnings management in IPO firms. Hence, we add restatement as a dummy that equals one if the IPO firm announces restatements within three years of their IPOs, and zero otherwise. Prior research suggests that newly public firms tend to have more difficulties in meeting the SEC's financial reporting requirement (Beasley, 1996; Teoh et al., 1998; Abbott et al., 2004). Thus, we include firm age (in logged value) as a control variable that could affect controversial activities or public image.

We further expect that less independent audit committees are related to ineffective governance, and poor governance is associated with firms' increasing moral problems or controversial activities. Klein (2002b) shows that firms reporting consecutive losses tend to have less independent audit committees. Thus, we include an indicator variable (*Loss*) as one additional control. *Loss* equals one if income before extraordinary items is negative, and zero otherwise. Top accounting firms are expected to perform more thorough audits in IPOs, on average, than smaller accounting firms (Venkataraman et al., 2008; Agrawal and Cooper, 2010). In addition, Chen et al., 2004, document that auditors charge lower fees and reduce the propensity to issue going-concern qualifications to client firms with superior CSR performance, but increase audit fees for clients with significant CSR concerns. Therefore, we include a Big-N indicator variable in regression models. Big 4/5 equals one if the IPO firm's external auditor is one of the brand name Big 4/5 auditors, and zero otherwise. We use the SDC data to identify each sample firm's auditor. Morsfield et al., 2006, and Agrawal and Cooper (2010) suggest that venture capital's and underwriters'

¹⁴ The percentage of CEO shareholdings and CEO tenure in years are defined as one if they exceed sample medians and zero otherwise. CEO duality is defined as one if the CEO is the chair of the board and zero otherwise. CEO founder is defined as one if the CEO is the founder of the IPO firm and zero otherwise. We cumulate the binary ratings for the given four dimensions of the CEO construct, thus the value of CEO power ranges from zero to four.

reputations are possibly related to IPO firms' accounting scandals. Thus, we include two indicator variables for underwriter reputation and venture capital (VC) reputation as controls. Underwriter reputation is defined to be one if the lead underwriter's Carter and Manaster (1990) rank is greater than or equal to eight. We use Loughran and Ritter's (2004)'s updated version of Carter and Manaster (1990) underwriter ranking to assign an underwriter reputation score. VC reputation is defined to be one if the IPO firms have venture capital banking, and zero otherwise.

Following prior literature, we include a number of additional control variables (e.g., King and Lenox, 2002; Agrawal and Chadha, 2005; Walls et al., 2012). We control firm size and financial leverage, measured as a firm's market capitalization (in logged value) at the fiscal year of IPO and long-term debt scaled by total assets, respectively. We control firms' growth rate measured as market-to-book ratio (*MTB*) as in the model. All the variables entering regression models are described in detail in Table I. To test Hypothesis 1, we construct the model equation (1) for firm-level regression as follows:

$$(1) \text{ CSR} = \beta_0 + \beta_1 \text{AC Existence or AC Expertise} + \beta_2 \text{CEO Power} + \beta_3 \text{Board Size} + \beta_4 \text{Board Independence} + \beta_5 \text{Restatement} + \beta_6 \text{Altman} + \beta_7 \text{Loss} + \beta_8 \text{Underwriter Reputation} + \beta_9 \text{VC Reputation} + \beta_{10} \text{Big4/5} + \beta_{11} \text{Institution Owner} + \beta_{12} \text{Firm Size} + \beta_{13} \text{Firm Age} + \beta_{14} \text{MTB} + \beta_{15} \text{Leverage} + \beta_{16} \text{Governance} + \text{Industry Dummies} + \varepsilon$$

The dependent variable is the CSR net score from KLD to proxy for IPO firms' corporate social responsibility performance. The key independent variable is audit committee existence (*AC Existence*) or audit committee financial expertise (*AC Expertise*), either narrowly or broadly defined. The industry dummies are created following the Fama-French 12-industry classification to control for industry variation. Our test window is either at the IPO year, or the IPO year *plus* one year post-IPO. Two years after the IPO, all public firms shall have audit committees as required, and they will no longer be subject to the experimental treatment.

To test Hypothesis 2, we construct the model equation (2) as follows:

$$(2) \text{ Tconcerns} = \beta_0 + \beta_1 \text{AC Existence or AC Expertise} + \beta_2 \text{CEO Power} + \beta_3 \text{Board Size} + \beta_4 \text{Board Independence} + \beta_5 \text{Restatement} + \beta_6 \text{Altman} + \beta_7 \text{Loss} + \beta_8 \text{Underwriter Reputation} + \beta_9 \text{VC Reputation} + \beta_{10} \text{Big4/5} + \beta_{11} \text{Institution Owner} + \beta_{12} \text{Firm Size} + \beta_{13} \text{Firm Age} + \beta_{14} \text{MTB} + \beta_{15} \text{Leverage} + \beta_{16} \text{Governance} + \text{Industry Dummies} + \varepsilon$$

The dependent variable is the total concerns (*Tconcerns*) from KLD to proxy for IPOs' controversial activities. The key independent variables are audit committee existence (*AC Existence*) or audit committee financial expertise (*AC Expertise*), either narrowly or broadly defined FE. [See Table I, pg 415]

IV. Sample and Empirical Results

A. Sample Selection

We initiate the sample including all common equity IPO firms reported in the SDC/Platinum New Issues database during the period between 2001 and 2010. We eliminate IPOs not listed on the U.S. public marketplaces, foreign firms, and firms not covered by Compustat. We then delete REITs, closed-end funds, unit offerings, financial firms (SIC codes between 6000 and 6999) and utility firms (SIC codes between 4900 and 4949), leveraged buyouts (LBOs), roll-ups, and IPOs having an offer price less than five dollars. We then merge our IPO sample with the KLD database. From 2001, the KLD database covers the largest 1,000 U.S. companies by market capitalization. Starting in 2003, KLD database expanded its coverage to the largest 3,000 U.S. companies by market capitalization.¹⁵ We omit sample firms that have missing Compustat records, missing prospectuses, and missing board and CEO

¹⁵ Ideally, we would like to include both large IPOs and small IPOs in our sample. As the KLD database generally follows larger companies, selection bias can arise.

information. Our final sample includes 281 unique IPO firm-year observations during the period of 2001 to 2010.

We also consider that the audit committee may have a lagged effect on firms' controversial activities or good public image. In an alternative test, we include observations at the IPO year and one year after IPO in our sample (the IPO year t and one year post-IPO $t+1$, a two-year window). As a result, the alternative test sample includes 562 firm-year observations. When our tests are for two-year sample, we apply the clustering technique in models for the sample to avoid the impact of first-year observations on that of the second year. We hand-collect data on audit committees, CEOs, and the boards' information from IPO firms' prospectus (S-1files). The prospectuses are obtained from the SEC's Edgar database. Table II describes our sample selection procedure. [see Table II, pg 417]

B. Descriptive Statistics

Table III shows the descriptive statistics of our sample firms at the IPO year, with a sample size of 281 observations. 89.7% of the U.S. IPOs have created audit committees, i.e., 10.3% of IPOs do not form audit committees. 56.6% of IPOs have narrowly defined audit committee financial expertise. For the broadly defined audit committee financial expertise, eighty-nine percent of IPOs possess it. For the monitoring control variables, on average, there are seven board members on IPO firms' boards and sixty-four percent of them are outside directors. Almost half (49.8%) of the IPO firms are backed by venture capitalists. Also, 60.9% of the IPOs are underwritten by a top tier underwriter. The CEO power index (*CEO Power*) is 1.488 on average. 88.3% of the IPOs hire a Big 4/5 auditor at time of their IPOs. For the risk control variables, Altman's Z-score (*Altman*) is 7.120 on average. The *Loss* indicator variable has an average value of 0.167. For the financial characteristics control variables, the median of market capitalization (i.e., IPO size) is 500 million dollars (pre-logged) and is comparable to other IPO studies (e.g., Agrawal and Cooper, 2010). The mean of financial leverage is 0.602 for IPOs. The sample IPOs are on average nine years old (the pre-logged value). [see Table III, pg 418]

C. Multivariate Tests

Table IV presents the results testing Hypothesis 1. The dependent variable is CSR performance score (*CSR*) and the independent variable of interest is audit committee existence (*AC Existence*). In Model (1), the coefficient on audit committee existence is insignificant when we include observations of CSR performance only at the IPO year. In Model (2), the coefficient on audit committee existence is positive and significant at the ten percent level (coefficient on *AC Existence* = 0.067, t-value = 1.91) after we include observations of CSR performance from both the IPO year and one year post-IPO. A comparison of Model (1) and Model (2) suggests that audit committee existence has a lagged effect on improving CSR performance. In other words, although audit committee existence does not significantly increase CSR score in the IPO year, it probably increases the IPO firm's CSR performance in the subsequent year after the IPO. The lagged beneficial role of audit committee on CSR performance shows that it takes time for the audit committee's monitoring behavior to be translated to final benefits—the actual increased CSR performance. Overall, the positive association between audit committee existence and IPOs' CSR score suggests that audit committee existence has a beneficial effect during an IPO.

From Table IV, we also find some interesting results in the control variables. In Model (2), coefficients on restatement are negatively significant (coefficient = -0.192, t-value = -2.14), suggesting that IPOs with accounting irregularities are likely related to low CSR performance. The Altman Z-score is positively significant in Model (2) (coefficient = 0.022, t-value = 3.52), suggesting that IPOs with greater financial distress probability tend to have lower CSR performance. Venture capital reputation and institutional ownership are positively significant, suggesting that external monitoring parties help increase IPOs' CSR performance. Firm size is positively significant in both models, suggesting that larger companies are more concerned with their reputation and thus are associated with higher CSR performance. Market to book ratio (*MTB*) is positively significant in both models, suggesting that growth firms are more likely to

be involved in CSR since they are probably more concerned with the future impact of being associated with these activities. Leverage is negatively significant in both models, suggesting that more risky IPOs are less likely to be involved in high CSR performance. Corporate governance is positively significant in both models, suggesting that good corporate governance is beneficial for helping IPOs maintain a high level of CSR performance. [see Table IV, pg 419]

In Table V, Models (1) and (2) include the IPO-year observations (one-year window). Models (3) and (4) include both the IPO-year and one year post-IPO (two-year window). The dependent variable is again CSR, and the independent variables of interest are narrowly defined audit committee financial expertise in Models (1) and (3) or broadly defined audit committee financial expertise in Models (2) and (4). The coefficients on *AC Expertise* are significantly positive in Models (1) and (3), suggesting that narrowly defined *AC expertise* is significantly positively associated with IPO high CSR performance. We observe a more significant result in Model (3) than in Model (1), suggesting that the effect of narrowly defined *AC expertise* on CSR performance also has a time lag. In Models (2) and (4), we observe a marginal positive association between the broadly defined *AC expertise* and IPOs' CSR performance (t-value = 1.56 in Model (2) and t-value = 1.53 in Model (4), respectively). Overall, the results in Table V show that narrowly defined *AC expertise* is more likely to be associated with better CSR performance of IPO firms than broadly defined *AC expertise*. This result may be due to that narrowly defined *AC expertise* includes more experience and skills to assure IPOs' compliance with regulations and internal policies.

With regard to control variables, restatement occurrence and leverage are negatively significant. Financial distress (*Altman*), institutional ownership, firm size, firm age, market to book ratio (*MTB*), and corporate governance are positively significant. Interpretation of these control variables is virtually the same as for those in Table IV.¹⁶ Hence, we omit further explanation for brevity. Overall, our results in Table IV (and Table V) support Hypothesis 1 that the existence and (financial expertise) of a designated audit committee at the IPO stage is positively associated with the IPO firm's CSR performance. [see Table V, pg 420]

Table VI and Table VII present the results regarding Hypothesis 2. In Table VI, the dependent variable is *Tconcerns*, a proxy for firms' involvement in controversial activities. The explanatory variable of interest is audit committee existence. Model (1) only includes the IPO year's observations, while Model (2) includes observations at both IPO year and one year post-IPO (i.e., two-year window). The existence of the audit committee is negatively significant in both models (coefficient on *AC Existence* = -0.093, t-value = -1.67 in Model (1); coefficient = -0.121, t-value = -2.08 in Model (2), respectively), suggesting that audit committee existence is strongly associated with less controversial activities of IPOs. With regard to the control variables in Table VI, CEO power is positively significant in Model (2), suggesting that excessive CEO power decreases audit committee's monitoring role and thus, is associated with more controversial activities. Restatement is positively significant in both models, suggesting that accounting irregularities increase IPOs' involvement in controversial activities. Leverage is positively significant in both models, suggesting that risky IPOs tend to have a higher level of controversial activities. Institutional ownership and venture capital reputation (*VC Reputation*) are negatively significant, suggesting that the external parties' monitoring role helps constrain IPOs' controversial activities. Board independence and corporate governance are negatively significant in both models, suggesting that well-structured governance IPOs tend to have less controversial activities. Firm size and firm age are negatively significant, suggesting that bigger IPOs and long-history IPOs are less likely to be associated with controversial activities. Firms' growth opportunity (*MTB*) is negatively associated with controversial activities, suggesting that high developing companies are less likely to put themselves in the risk of involvement in controversial activities. [see Table VI, pg 421]

¹⁶ Unlike the insignificant coefficient on firm age in Table IV, firm age is positively significant in Table V, suggesting that long-history IPOs worry more about their reputation and tend to have better CSR performance.

In Table VII, Models (1) and (2) include observations at IPO year only. Models (3) and (4) include observations of both IPO year and one year post-IPO (i.e., two-year window). The dependent variable is *Tconcerns*, which represents controversial activities. The key independent variable is narrowly defined audit committee financial expertise or broadly defined audit committee financial expertise. From Model (1) to Model (4), we generally find a negative relationship between audit committee financial expertise and IPO firms' controversial activities. Our results show that narrowly defined FE tends to be more effective in restraining IPOs' controversial activities than broadly defined FE. Specifically, narrowly defined FE is negatively significant at the five percent level in Models (1) and (3) (t-values are -2.31 and -2.45, respectively), while broadly defined FE is only negatively significant at the ten percent level in Models (2) and (4) (t-values are -1.93 and -1.96, respectively). The interpretation of the control variables is similar to that of Table VI; hence, we omit it for brevity. In conclusion, the results in Table VI and Table VII show that both audit committee existence and FE are strongly associated with IPOs' lower level of controversial activities, which supports out Hypothesis 2.

Taken together, we find that the audit committee is more effective in constraining controversial activities than improving IPOs' CSR performance, evidenced by the fact that model specifications in Table VI and Table VII are more significant than those in Table IV and Table V. We reason that CSR performance is a net score based on summation of total concerns and total strengths. We consider this summation as a mediation process that blends the effect of controversial activities and public image. Theoretically, we consider that the audit committee is more concerned with controversial activities than with public image because of its risk-averse nature. We infer that the audit committee has an asymmetric role, restraining IPOs' downside risk (such as involvement in controversial activities) more than improving upside premium (such as involvement in a good public image). [see Table VII, pg 422]

D. Additional Tests

To validate our argument on the possible asymmetric role of audit committee concerning controversial activities and public image, we examine the relationship between the audit committee and CSR strengths. Though ideally the audit committee in the IPO setting is presumed to prevent controversial activities and encourage the establishment of a better public image at the same time, the actual situation could be quite different. The audit committee's innate nature is of a risk-averse "financial police" who concerns itself more with the downside risk more than the upside premium. The asymmetric effect could be translated into the phenomenon that audit committees are more effective in constraining controversial activities than improving the IPOs' public image. Researchers consistently find this asymmetric effect of CSR concerns and strengths. For instance, Chong and Liu (2014) indicate that CSR concerns play a more important role in impacting the demand of equity offering and valuation than CSR strengths. Chatterji et al., 2009, find that CSR concerns are effective for predicting firms' future environmental violations, while the CSR strengths are less effective in predicting firms' future performance.

Moreover, the asymmetric effect may be due to the fact that one-time engagement in controversial activities will cause firms to pay a costly price, but it takes many years to establish a better image. In other words, the penalty for engagement in controversial activities is extremely high, while the reward is relatively low. This asymmetric penalty and reward situation may become more obvious in a short period of time during an IPO. The unbalanced penalty and reward may rationalize that audit committee worries about an IPO's controversial activities more than its good public image. Lastly, the audit committee's extension or complimentary role of monitoring CSR performance may diminish when applied to public image. It is highly possible that the audit committee prioritizes its various responsibilities and delegates the task of establishment of strategic reputational public image to other committees (e.g., CSR committee) when the IPO firm become more mature and developed. Taken together, we expect that audit committee's attributes are less effective in impacting IPOs' CSR strengths. We implement the test based on the model equation (3) as follows:

$$(3) \text{ } Tstrengths = \beta_0 + \beta_1 \text{AC Existence or AC Expertise} + \beta_2 \text{CEO Power} + \beta_3 \text{Board Size} + \beta_4 \text{Board Independence} + \beta_5 \text{Restatement} + \beta_6 \text{Altman} + \beta_7 \text{Loss} + \beta_8 \text{Underwriter Reputation} + \beta_9 \text{VC Reputation} + \beta_{10} \text{Big4/5} + \beta_{11} \text{Institution Owner} + \beta_{12} \text{Firm Size} + \beta_{13} \text{Firm Age} + \beta_{14} \text{MTB} + \beta_{15} \text{Leverage} + \beta_{16} \text{Governance} + \text{Industry Dummies} + \varepsilon$$

The dependent variable is *Tstrengths*, which represents the IPOs' public image. Table VIII presents the empirical results of equation (3). In Models (1) and (2), the key independent variable is a dummy of the existence of audit committee. From Model (3) to Model (6), the key independent variables are narrowly defined FE and broadly defined FE. Among those models, Models (1), (3), and (4) include observations at the IPO year only. Models (2), (5), and (6) include observations at both IPO year and one year post-IPO. We observe positive but insignificant coefficients on audit committee existence, suggesting that the existence of the audit committee does not help improve IPOs' public image. For Models (3)-(6), the signs for both narrowly defined FE and broadly defined FE are consistently positive. However, only narrowly defined FE in Model (5) is positively significant (coefficient = 0.065, t-value = 1.90), suggesting that narrowly defined audit committee FE is effective in improving an IPO's public image.

With regard to the control variables, coefficients on restatement are negatively significant in Models (4), (5), and (6), suggesting that IPOs with accounting irregularities are less likely related to good public image. Altman Z-score is positively significant in Models (4), (5), and (6), suggesting that IPOs with greater financial distress tend to have a worse public image. Venture capital reputation and institutional ownership are positively significant, suggesting that external monitoring parties help increase IPOs' public image. Firm size is positively significant in Models (4), (5), and (6), suggesting that larger companies are more concerned with their reputation and thus associated with better public image. Market to book ratio (*MTB*) is positively significant in all models, suggesting that growth firms are more likely to be involved in better public image since they probably are more concerned with the future impact of being associated with these activities. Leverage is negatively significant in Models (4), (5), and (6), suggesting that more risky IPOs are less likely to be related to good public image. Corporate governance is positively significant in Models (2), (4), and (6), suggesting that good corporate governance is beneficial to help IPOs maintain good public image.

In conclusion, we find a weak relationship between audit committee FE and an IPO's public image, evidenced by the fact that only one model is positively significant among all six models in Table VIII. These results suggest that the effect of the audit committee on improving an IPO's public image is limited compared to the effect of the audit committee on constraining controversial activities. The finding echoes our previous expectation that the audit committee's risk-averse nature leads to its asymmetric role of constraining IPOs' controversial activities versus improving the IPO's public image. [see Table VIII, pg 423]

E. Supplemental Tests

We conduct additional tests, and results are suppressed for simplicity. We add an indicator variable about whether the IPOs are issued a going-concern report by auditors or not, and an indicator variable about whether the IPOs have large foreign operations (ten percent of sales revenue from export sales). Koh and Tong (2013) argue that controversial activities are positively related to the firms' likelihood of being issued a going-concern audit report. Ettredge et al., 2014, show that firms with multinational business operations are associated with a higher level of audit committee financial expertise. Taken together, going-concern audit opinion and foreign operations can be possible omitted correlated variables in our models. To address these concerns, in equations (1) and (2) we add the two indicator variables. Our main results are robust after we add these two control variables.

Second, prior studies examine the effectiveness of the audit committee under the SOX regime. Zhang et al., 2007, find that firms are more likely to be identified with an internal control weakness if their audit committees have less financial expertise or, more specifically, have less accounting financial expertise

and non-accounting financial expertise. Goh (2009) finds that the audit committee and the board play an important role in monitoring the remediation of material weaknesses. We add an indicator variable, SOX, that equals one if IPOs are initiated after 2003, and zero otherwise. The SOX indicator variable is positively significant in our main tests, suggesting that IPOs tend to have higher corporate social responsibility after the SOX.

Third, we use alternative measures of the dependent variables by replacing the three continuous variables—*CSR* score, *Tconcerns*, and *Tstrengths* with indicator variables, following Koh and Tong (2013). Specially, the indicator variable of corporate social responsibility equals one if the net score of CSR is greater than the sample median of all the U.S. companies covered by KLD in the same industry by Fama-French 12-industry classification. The indicator variable of controversial activities equals one if the total concerns score is greater than the sample median. The indicator variable of good public image equals one if the total strengths score is greater than the sample median. The significances on variables of interest from alternative tests keep quantitatively similar as those in the previous tests.

V. Conclusions

Prior research focuses on studying the audit committee's role in mature firms, while few researchers examine the audit committee's role in the IPO setting. Evidence about the audit committee's existence and characteristics in the IPO is important since regulators are still considering the cost and benefit of the mandatory requirement of an audit committee when a firm is first listed on stock exchanges. For example, on August 22, 2013, NYSE made a policy change that allows IPOs to have a one year transition period to establish a fully independent audit committee. However, NASDAQ is considering whether to resubmit its requirement of audit committee for IPOs. Our study aims to shed light on this issue by investigating the relation between audit committee and corporate social responsibility for IPOs.

Our results show that the audit committee existence and committee members' financial expertise are associated with fewer controversial activities and higher corporate social responsibility of IPOs. Furthermore, narrowly defined audit committee financial expertise helps improve IPOs' corporate social responsibility more than broadly defined financial expertise. Our additional tests show that the relationship between the audit committee and an IPO's public image is weaker. We conclude that the asymmetric role of the audit committee in constraining controversial activities and improving public image may due to the audit committee's risk-averse nature and the payoff difference of "good activities" and "bad activities".

Albeit the supporting results, we acknowledge that our findings are subject to the limits of the tests performed, and the statistical power may be low due to the small sample size and bias. We admit that our findings are more applicable to larger IPOs, since the KLD database generally includes performance ratings of large U.S. companies. Endogenously, IPO firms that are interested in best practices have both CSR and audit committees. Additionally, we deem our test results as of association, not causation. Our empirical evidence should, therefore, be interpreted with caution.

Table I: Variable Definitions

Research Variables	
<i>Tconcerns</i>	= Total concerns score in KLD dataset based on five social rating categories of KLD ratings data: community, diversity, employee relations, environment, and product.
<i>Tstrengths</i>	= Total strengths score in KLD dataset based on five social rating categories of KLD ratings data: community, diversity, employee relations, environment, and product.
<i>CSR</i>	= Total strengths minus total concerns, based on five social rating categories of KLD ratings data: community, diversity, employee relations, environment, and product.
<i>AC Existence</i>	= A dummy variable of 1 if the firm at the IPO has an audit committee, 0 otherwise.
<i>AC Expertise_N</i>	= A dummy variable of 1 if at least one narrowly defined financial expert on a designated audit committee, 0 otherwise.
<i>AC Expertise_B</i>	= A dummy variable of 1 if at least one broadly defined financial expert on a designated audit committee, 0 otherwise.
<i>CEO Power</i>	= The sum of four CEO related dummy variables (CEO shareholding, CEO tenure, CEO duality, and CEO founder).
<i>CEO Shareholding</i>	= A dummy variable of 1 if the percentage of CEO shareholdings exceeds the sample medians, 0 otherwise.
<i>CEO Tenure</i>	= A dummy variable of 1 if CEO tenure in years exceeds the sample medians, 0 otherwise.
<i>CEO Duality</i>	= A dummy variable of 1 if the CEO is the chair of board, 0 otherwise.
<i>CEO Founder</i>	= A dummy variable of 1 if the CEO is a founder (or co-founder) of the firm, 0 otherwise.
Control Variables	
<i>Board Size</i>	= The number of board members at the IPO year.
<i>Board Independence</i>	= The percentage of independent members on the board at the IPO year.
<i>Restatement</i>	= A dummy variable of 1 if the IPO firm announced restatements within 3 years of their IPOs, and 0 otherwise.
<i>Altman</i>	= Altman's Z-score, measure of the probability of bankruptcy, with a lower value indicating greater financial distress. We calculate Z-score for manufacturing firms following Hillegeist et al. (2004), and for non-manufacturing firms following Altman (2000), respectively.
<i>Loss</i>	= A dummy variable of 1 if net income before extraordinary items is negative, and 0 otherwise.

<i>Underwriter Reputation</i>	=	A dummy variable of 1 if the lead underwriter's Carter and Manaster (1990) rank is greater than or equal to eight.
<i>VC Reputation</i>	=	A dummy variable of 1 if the IPO firm has venture capital backing.
<i>Big 4/5</i>	=	An indicator variable, 1 if the IPO firm is audited by Big-N auditor, 0 otherwise.
<i>Institution Owner</i>	=	The percentage of institutional shareholder ownership (number of shares held by institutions divided by common shares outstanding) during the IPO year, calculated as $\log(1 + \text{ownership percentage})$.
<i>Firm Size</i>	=	The natural logarithm of a firm's market capitalization at the IPO year.
<i>Firm Age</i>	=	The natural logarithm of firm's age since the IPO firm is founded.
<i>MTB</i>	=	The natural logarithm of market-to-book ratio, measured as market value of equity (at the fiscal year end) scaled by book value of equity.
<i>Leverage</i>	=	Financial leverage, calculated as long-term debt scaled by total assets.
<i>Governance</i>	=	Net score of corporate governance score in KLD database.

Table II: Sample Selection Procedure

Sample Selection	Number of Observations
IPOs issued in the U.S. based on SDC dataset (year 2001-2010)	2,155
Exclude:	
Financial and utility firms (SIC code: 6000-6999 and 4900-4949)	692
Closed-end fund/trusts, Unit Issues and Spinoff (equity carve-out)	85
Non-U.S. public marketplace, Foreign firms	240
Offer price	77
Not covered by Compustat, Prospectus missing, Board and CEO information missing, and Financial data missing	420
Not covered by KLD	360
Final sample	281

Table III: Descriptive Statistics

Variables	Mean	Std Dev	Q1	Median	Q3
<i>Tconcerns</i>	0.872	0.951	0.000	1.000	2.000
<i>Tstrengths</i>	0.199	0.558	0.000	0.000	0.000
<i>CSR</i>	-0.690	1.165	-1.000	-1.000	0.000
<i>AC Existence</i>	0.897	0.295	1.000	1.000	1.000
<i>AC Expertise_N</i>	0.566	0.497	0.000	1.000	1.000
<i>AC Expertise_B</i>	0.890	0.158	1.000	1.000	1.000
<i>CEO Power</i>	1.488	1.282	0.000	1.000	2.000
<i>Board Size</i>	7.053	1.988	6.000	7.000	8.000
<i>Board Independence</i>	0.641	0.359	0.251	0.590	0.756
<i>Restatement</i>	0.164	0.310	0.000	0.000	0.000
<i>Altman</i>	7.120	9.746	2.020	4.044	8.657
<i>Loss</i>	0.167	0.561	0.000	0.000	0.000
<i>Underwriter Reputation</i>	0.609	0.489	0.000	1.000	1.000
<i>VC Reputation</i>	0.498	0.501	0.000	0.000	1.000
<i>Big 4/5</i>	0.883	0.323	1.000	1.000	1.000
<i>Institution Owner</i>	0.322	0.146	0.218	0.292	0.386
<i>Firm Size</i>	6.256	1.024	5.531	6.216	6.911
<i>Firm Age</i>	2.521	0.951	1.946	2.197	3.091
<i>MTB</i>	1.048	0.806	0.548	1.062	1.519
<i>Leverage</i>	0.602	0.587	0.403	0.587	0.771
<i>Governance</i>	0.321	0.236	0.215	0.318	0.406

This table summarizes descriptive statistics for final sample of 281 U.S. IPOs firms during 2001-2010. Refer to Table 1 for variable definitions.

Table IV: Regression of CSR on Audit Committee Existence

Variables	Model (1)	Model (2)
<i>AC Existence</i>	0.052 (0.86)	0.067* (1.91)
<i>CEO Power</i>	-0.050 (-0.85)	0.036 (0.71)
<i>Board Size</i>	-0.044 (-1.13)	-0.024 (-0.76)
<i>Board Independence</i>	0.191 (0.76)	0.300 (1.55)
<i>Restatement</i>	-0.174 (-1.65)	-0.192** (-2.14)
<i>Altman</i>	0.010 (1.19)	0.022*** (3.52)
<i>Loss</i>	-0.068 (-0.92)	-0.151 (-1.40)
<i>Underwriter Reputation</i>	0.017 (0.21)	-0.061 (-0.84)
<i>VC Reputation</i>	0.103* (1.75)	0.125* (1.86)
<i>Big 4/5</i>	-0.019 (-0.31)	0.033 (0.62)
<i>Institution Owner</i>	0.208 (1.53)	0.267** (2.28)
<i>Firm Size</i>	0.047* (1.89)	0.050* (1.94)
<i>Firm Age</i>	-0.038 (-0.74)	-0.076 (-1.10)
<i>MTB</i>	0.105** (2.21)	0.116*** (3.48)
<i>Leverage</i>	-0.111* (-1.74)	-0.159** (-2.50)
<i>Governance</i>	0.171* (1.83)	0.190** (2.54)
Intercept and Industry Dummies	Included	Included
Observations	281	562
Adj.R ²	10.3%	15.2%

This table presents the regression results of CSR on audit committee existence. Column (1) uses CSR scores in KLD at the IPO year. Column (2) uses CSR scores in KLD at both the IPO year and one year after IPO (two-year window), clustering (by firm and by year) technique in the model. T-statistics are presented in parentheses. ***, ** and * separately refer to significance (two tailed) at the one, five, and ten percent level. Refer to Table 1 for variable definitions.

Table V: Regression of CSR on Audit Committee Financial Expertise

Variables	Model (1)	Model (2)	Model (3)	Model (4)
<i>AC Expertise_N</i>	0.068* (1.87)		0.073** (2.49)	
<i>AC Expertise_B</i>		0.055 (1.56)		0.060 (1.53)
<i>CEO Power</i>	-0.054 (-0.95)	-0.031 (-0.49)	0.025 (0.58)	0.047 (0.90)
<i>Board Size</i>	-0.055 (-1.41)	-0.033 (-0.80)	-0.027 (-0.80)	0.015 (0.29)
<i>Board Independence</i>	0.134 (0.58)	0.200 (0.77)	0.235 (1.48)	0.260 (1.28)
<i>Restatement</i>	-0.185 (-1.64)	-0.171 (-1.58)	-0.180** (-1.99)	-0.134** (-2.16)
<i>Altman</i>	0.012 (1.29)	0.013 (1.34)	-0.018** (-2.16)	-0.014* (-1.85)
<i>Loss</i>	-0.052 (-0.75)	-0.061 (-0.94)	-0.154 (-1.29)	-0.151 (-1.15)
<i>Underwriter Reputation</i>	-0.034 (-0.29)	0.040 (0.37)	-0.073 (-0.62)	-0.074 (-0.66)
<i>VC Reputation</i>	0.084 (0.80)	0.070 (0.76)	0.125* (1.84)	0.068 (1.55)
<i>Big 4/5</i>	0.016 (0.14)	0.021 (0.30)	0.035 (0.49)	-0.090 (-0.52)
<i>Institution Owner</i>	0.206* (1.82)	0.278* (1.91)	0.301** (2.36)	0.312*** (2.81)
<i>Firm Size</i>	0.040 (1.36)	0.039 (1.42)	0.052** (2.15)	0.056** (2.28)
<i>Firm Age</i>	-0.029 (-0.58)	-0.043 (-1.10)	-0.078* (-1.84)	-0.096* (-1.92)
<i>MTB</i>	0.101*** (2.89)	0.106** (2.23)	0.131** (2.26)	0.138** (2.13)
<i>Leverage</i>	-0.121 (-1.62)	-0.127 (-1.45)	-0.155** (-2.36)	-0.159** (-2.31)
<i>Governance</i>	0.171* (1.83)	0.190* (1.86)	0.182* (1.79)	0.195** (2.33)
Intercept and Industry Dummies	Included	Included	Included	Included
Observations	281	281	562	562
Adj.R ²	10.3%	10.3%	15.2%	15.2%

This table presents the regression results of CSR on audit committee financial expertise. Column (1) and (2) use CSR scores in KLD at the IPO year. Column (3) and (4) use CSR scores in KLD at both the IPO year and one year after IPO, clustering (by firm and by year) technique in models. T-statistics are presented in parentheses. ***, ** and * separately refer to significance (two tailed) at the one, five, and ten percent level. Refer to Table 1 for variable definitions.

Table VI: Regression of Controversial Activities on Audit Committee Existence

Variables	Model (1)	Model (2)
<i>AC Existence</i>	-0.093* (-1.67)	-0.121** (-2.08)
<i>CEO Power</i>	0.072 (1.53)	0.104** (2.31)
<i>Board Size</i>	0.025 (0.79)	0.029 (0.88)
<i>Board Independence</i>	-0.153* (-1.82)	-0.190** (-2.21)
<i>Restatement</i>	0.135** (2.30)	0.144*** (2.81)
<i>Altman</i>	-0.009 (-1.38)	0.006 (0.75)
<i>Loss</i>	0.019 (0.30)	0.028 (0.46)
<i>Underwriter Reputation</i>	-0.063 (-0.57)	-0.053 (-0.49)
<i>VC Reputation</i>	-0.082** (-2.13)	-0.076** (-2.08)
<i>Big 4/5</i>	0.078 (1.44)	0.045 (1.23)
<i>Institution Owner</i>	-0.123 (-0.81)	-0.257** (-2.41)
<i>Firm Size</i>	-0.041** (-2.02)	-0.056** (-2.34)
<i>Firm Age</i>	0.068 (0.75)	-0.086** (-1.99)
<i>MTB</i>	-0.103** (-2.32)	-0.108** (-2.17)
<i>Leverage</i>	0.171* (1.86)	0.192** (2.50)
<i>Governance</i>	-0.126* (-1.84)	-0.131** (-2.01)
Intercept and Industry Dummies	Included	Included
Observations	281	562
Adj.R ²	10.3%	15.6%

This table presents the regression results of controversial activities on audit committee existence. Column (1) uses total concern scores in KLD at the IPO year. Column (2) uses total concern scores in KLD at both the IPO year and one year after IPO, clustering (by firm and by year) technique in the model. T-statistics are presented in parentheses. ***, ** and * separately refer to significance (two tailed) at the one, five, and ten percent level. Refer to Table 1 for variable definitions.

Table VII: Regression of Controversial Activities on Audit Committee Financial Expertise

Variables	Model (1)	Model (2)	Model (3)	Model (4)
<i>AC Expertise_N</i>	-0.062** (-2.31)		-0.064** (-2.45)	
<i>AC Expertise_B</i>		-0.057* (-1.93)		-0.059* (-1.96)
<i>CEO Power</i>	0.072 (1.66)	0.053 (1.41)	0.042 (1.15)	0.052 (1.64)
<i>Board Size</i>	0.031 (1.00)	0.025 (0.48)	0.012 (0.39)	0.016 (0.57)
<i>Board Independence</i>	-0.136 (-0.66)	-0.145 (-0.78)	-0.206* (-1.81)	-0.194* (-1.86)
<i>Restatement</i>	0.151** (2.32)	0.153** (2.37)	0.149** (2.56)	0.155*** (3.10)
<i>Altman</i>	-0.016 (-1.45)	-0.016 (-1.47)	-0.006 (-1.20)	-0.007 (-1.43)
<i>Loss</i>	0.060 (0.75)	0.049 (0.66)	0.079 (0.98)	0.080 (1.01)
<i>Underwriter Reputation</i>	-0.048 (-0.46)	-0.062 (-0.48)	0.012 (0.14)	0.028 (0.31)
<i>VC Reputation</i>	-0.078 (-0.95)	-0.076 (-0.91)	-0.106* (-1.88)	-0.123* (-1.94)
<i>Big 4/5</i>	0.073 (0.49)	0.078 (0.50)	0.142 (1.07)	0.208 (1.13)
<i>Institution Owner</i>	-0.102* (-1.86)	-0.130* (-1.85)	-0.163*** (-2.90)	-0.165*** (-3.69)
<i>Firm Size</i>	-0.042** (-2.09)	-0.040*** (-4.39)	-0.049*** (-3.52)	-0.054*** (-3.68)
<i>Firm Age</i>	0.036 (0.77)	0.074 (1.38)	0.061 (1.29)	0.072 (1.61)
<i>MTB</i>	-0.156** (-2.23)	-0.151** (-2.03)	-0.125** (-2.67)	-0.120* (-1.93)
<i>Leverage</i>	0.160 (1.42)	0.163 (1.45)	0.116 (0.89)	0.167** (2.22)
<i>Governance</i>	-0.078 (-1.55)	-0.134* (-1.71)	-0.125** (-2.12)	-0.117** (-2.43)
Intercept and Industry Dummies	Included	Included	Included	Included
Observations	281	281	562	562
Adj. R ²	10.3%	10.4%	15.7%	15.7%

This table presents the regression results of controversial activities on audit committee financial expertise. Column (1) and (2) use total concern scores at the IPO year. Column (3) and (4) use total concern scores at both the IPO year and one year after IPO, clustering (by firm and by year) technique in models. T-statistics are presented in parentheses. ***, ** and * separately refer to significance (two tailed) at the one, five, and ten percent level. Refer to Table 1 for variable definitions.

Table VIII: Regression of KLD Strengths on Audit Committee Existence and Financial Expertise

Variables	Model (1)	Model (2)	Model (3)	Model (4)	Model (5)	Model (6)
<i>AC Existence</i>	0.051 (0.89)	0.064 (1.06)				
<i>AC Expertise_N</i>			0.060 (1.47)		0.065* (1.90)	
<i>AC Expertise_B</i>				0.054 (1.59)		0.057 (1.60)
<i>CEO Power</i>	-0.049 (-0.83)	-0.055 (-0.93)	-0.029 (-0.47)	0.024 (0.50)	0.024 (0.51)	0.046 (0.93)
<i>Board Size</i>	0.043 (1.09)	0.056 (1.46)	0.016 (0.36)	0.023 (0.73)	0.026 (0.82)	0.008 (0.23)
<i>Board Independence</i>	0.193 (0.78)	0.137 (0.55)	0.202 (0.78)	0.303 (1.50)	0.289 (1.44)	0.266 (1.27)
<i>Restatement</i>	-0.178 (-1.64)	-0.186 (-1.65)	-0.179 (-1.57)	-0.196** (-2.11)	-0.181** (-2.02)	-0.135** (-2.24)
<i>Altman</i>	0.009 (1.13)	0.010 (1.24)	0.013 (1.37)	0.022*** (3.07)	0.018** (2.24)	0.013* (1.79)
<i>Loss</i>	-0.064 (-0.42)	-0.054 (-0.35)	-0.097 (-0.59)	-0.154 (-1.23)	-0.157 (-1.26)	-0.155 (-1.17)
<i>Underwriter Reputation</i>	0.017 (0.11)	-0.014 (-0.09)	0.044 (0.27)	-0.069 (-0.56)	-0.073 (-0.59)	-0.076 (-0.54)
<i>VC Reputation</i>	0.103 (0.82)	0.084* (1.72)	0.071 (0.75)	0.129* (1.84)	0.123* (1.82)	0.067 (1.49)
<i>Big 4/5</i>	-0.002 (-0.01)	0.009 (0.04)	0.026 (0.11)	0.026 (0.13)	0.032 (0.16)	-0.091 (-0.46)
<i>Institution Owner</i>	0.222 (1.02)	0.217 (1.09)	0.359* (1.79)	0.313** (2.42)	0.308** (2.42)	0.315*** (2.77)
<i>Firm Size</i>	0.038 (1.38)	0.039 (1.38)	0.037 (1.46)	0.051* (1.92)	0.052* (1.86)	0.056** (2.05)
<i>Firm Age</i>	0.034 (0.39)	0.027 (0.32)	0.077 (1.16)	0.081 (1.13)	0.078 (1.16)	0.113 (1.45)
<i>MTB</i>	0.105*** (2.77)	0.101*** (2.73)	0.126*** (2.76)	0.105*** (3.42)	0.106*** (3.41)	0.108*** (3.23)
<i>Leverage</i>	-0.114 (-1.34)	-0.111 (-1.32)	-0.124 (-1.28)	-0.166** (-2.72)	-0.162** (-2.43)	-0.155** (-2.06)
<i>Governance</i>	0.122 (1.06)	0.148* (1.82)	0.116 (1.25)	0.159* (1.73)	0.164 (0.92)	0.178** (2.03)
Intercept and Industry Dummies	Included	Included	Included	Included	Included	Included
Observations	281	562	281	281	562	562
Adj. R ²	9.5%	13.7%	9.6%	9.6%	13.8%	13.8%

This table presents the regression results of KLD strengths on audit committee existence and audit committee financial expertise. Column (1), (3), and (4) use *Tstrengths* at the IPO year. Column (2), (5) and (6) use *Tstrengths* at both the IPO year and one year after IPO, clustering (by firm and by year) technique in models. T-statistics are presented in parentheses. ***, ** and * separately refer to significance (two tailed) at the one, five, and ten percent level. Refer to Table 1 for variable definitions.

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