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# Are Auditor and Audit Committee Report Changes Useful to Investors? Evidence from the United Kingdom

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To the Graduate Council:

I am submitting herewith a dissertation written by Lauren Carse Reid entitled "Are Auditor and Audit Committee Report Changes Useful to Investors? Evidence from the United Kingdom." I have examined the final electronic copy of this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy, with a major in Business Administration.

Joseph V. Carcello, Major Professor

We have read this dissertation and recommend its acceptance:

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(Original signatures are on file with official student records.)

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**Are Auditor and Audit Committee Report Changes Useful to Investors?  
Evidence from the United Kingdom**

A Dissertation Presented for the  
Doctor of Philosophy  
Degree  
The University of Tennessee, Knoxville

Lauren Carse Reid  
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## **ABSTRACT**

Recently, U.S. and international regulators have proposed significant changes to auditor and audit committee reporting with the stated intention of delivering more useful information to stakeholders. Whether new disclosure requirements achieve this intended benefit, however, is unknown. Exploiting the exogenous shock of the recent changes to auditor and audit committee reports in the United Kingdom, I find that information asymmetry significantly decreased following the implementation of the new disclosure regime. Furthermore, I find that reductions in information asymmetry are greater for firms with weaker information environments, suggesting that the new disclosure requirements particularly benefit investors in these firms. Additionally, I find some evidence that companies employing auditors that tend to provide more (less) detailed audit reports under the new regime experience more (less) significant reductions in information asymmetry. Overall, it appears that additional required disclosures from audit committees and auditors provide new and useful information to investors and serve to reduce information asymmetry. The results of this study provide important information to regulators, auditors, audit committees, public companies, and capital markets worldwide.

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## I. INTRODUCTION

The external auditor plays a critical role in the capital markets by monitoring management and protecting shareholders' interests through an independent attestation of a public company's financial statements. As an additional monitoring mechanism, the audit committee oversees the financial reporting process, including the appointment and performance of the external auditor. Despite the important functions of both the auditor and the audit committee, the only communication they provide to investors, regulators, and other stakeholders are standardized reports. In the United States and many other countries, the audit report follows a "pass/fail" model that varies little between companies and offers minimal insight into the audit process. Similarly, the audit committee report is typically boilerplate and presents limited information on the committee's oversight of the external auditor.

Many stakeholders have expressed concern that the current reports provide little informational value and desire a revision to existing standards (Blake et al. 2011; Turner et al. 2010). In response to these concerns, regulators worldwide have taken action to improve the transparency of the audit report as well as the audit committee report (IAASB 2013b; Cohn 2014). Of particular interest to this study, the Public Company Accounting Oversight Board (PCAOB) issued a proposed rule on August 13, 2013 that would require a discussion of critical audit matters ("CAMs"), auditor independence, and tenure in the auditor report (PCAOB 2013). Additionally, the Securities and Exchange Commission (SEC) plans to issue a concept release in early 2015 with the aim of enhancing the work of audit committees and more specifically, improving the audit committee report to make it more useful to investors (White 2014; Heller 2014; Whitehouse 2014). The effects of these reporting changes, however, are unknown ex-ante. Proponents believe that enhancing the audit report and the audit committee report will deliver

new and useful information to investors by providing insights into the valuable perspective that these external monitors have on companies and increasing investors' trust in the work performed by auditors and audit committees (Buller 2013; IAASB 2013a; Melvin 2013; Touche 2014). Opponents, however, argue that revising reporting requirements will be fruitless as additional information will provide little, if any, incremental value to stakeholders given that investors may find the disclosures unnecessary, uninteresting, or too daunting to process in their trading decisions (Cardiff 2013; Cates 2013; Goff 2013). While some researchers have conducted experiments, focus groups, and interviews to gain insight into potential avenues for report improvements (Gray et al. 2011; Vanstraelen et al. 2012; Christensen et al. 2014; Kachelmeier et al. 2014), the lack of actual regulatory change has been a major limitation in the examination of the effects of these reforms on financial statement users.

As former Financial Accounting Standards Board (FASB) Chairman Dennis Beresford stated in his comment letter to the PCAOB, "once you have real world examples...then, it should be imperative to test how users would react to those disclosures and see if they would actually find them beneficial" (Beresford 2013). This study uses the "real world examples" provided by the United Kingdom's reporting changes to examine the impact of additional disclosures on financial statement users. Specifically, I examine the Financial Reporting Council's (FRC) issuance of changes to the U.K. Corporate Governance Code, its Guidance for Audit Committees, and the International Standards on Auditing (U.K. and Ireland). The regulatory changes, which became effective for financial statement years beginning on or after October 1, 2012, stipulate that audit committees must include in their report, among other disclosures, the significant financial statement issues that the committee considered and how they addressed

these issues (FRC 2012b).<sup>1</sup> Additionally, the FRC's revisions to the International Standard on Auditing 700 (U.K. and Ireland) instruct auditors to include the following important items in their reports: (1) a discussion of assessed risks of material misstatement, (2) information on the materiality threshold applied in the engagement, and (3) a description of the scope of the audit (FRC 2013).

In this study, I empirically examine whether new audit committee and auditor reporting requirements fulfill the intended benefit of delivering more information to stakeholders by exploiting the exogenous shock created by the U.K. reporting changes. Prior literature finds that greater overall disclosure requirements as well as more specific disclosures in annual reports are associated with decreases in information asymmetry (Botosan 1997; Leuz and Verrecchia 2000; Hail and Leuz 2006; De Franco et al. 2011; Lang et al. 2012; Campbell et al. 2014). Based on this research, it is feasible that enhanced audit committee and auditor disclosures could reduce information asymmetry by providing new and useful information to investors.<sup>2,3</sup> It, however, is also possible that investors could view the new disclosures as unnecessary in their evaluation of a company or suffer from "information overload" and decide not to process the disclosures (You and Zhang 2008; Miller 2010; Cardiff 2013; Cates 2013; Goff 2013; White 2013). Given the call from investors for increased disclosures from auditors and audit committees (Carcello et al. 2011a; CFA 2011; Gray et al. 2011; Mock et al. 2013; PCAOB 2014), I predict that investors will find the new reports more useful and the greater transparency will serve to reduce information asymmetry.

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<sup>1</sup> Please refer to Section II for more information regarding the specifics of the new disclosure requirements.

<sup>2</sup> In this paper, I use common proxies for information asymmetry to test the degree to which enhanced auditor and audit committee reports provide new and useful information to investors. As decreases in information asymmetry should result from the release of decision useful information to investors, these proxies are appropriate to determine whether the reports contain decision useful "information content".

<sup>3</sup> As discussed in Leuz and Verrecchia (2000), theory does not distinguish between information asymmetry that arises between a firm and its shareholders and information asymmetry that is present among investors.

Following prior literature, I measure information asymmetry using two proxies: abnormal trading volume and abnormal bid-ask spreads (Leuz and Verrecchia 2000; DeFond et al. 2007; Bushee et al. 2010; Landsman et al. 2012; Blankespoor et al. 2014).<sup>4</sup> A reduction in information asymmetry would be indicated by an increase in abnormal trading volume and a decrease in abnormal bid-ask spreads. In the U.K., earnings announcements are typically released several weeks before the annual report and include substantially the same information as the annual report with the exception of the audit committee and auditor reports.<sup>5</sup> I therefore compare abnormal trading volume and bid-ask spreads around the annual report issuance from the period prior to the regulatory reform to the initial implementation year for each firm. This design allows for the isolation of the change in information asymmetry attributable to the new audit committee and auditor disclosures.

In an analysis of U.K. firms mandated to comply with the new reporting requirements, I find that abnormal trading volume significantly increases while abnormal bid-ask spreads significantly decrease from the year prior to the reporting changes to the first year the additional disclosures are required. These results are also economically significant as I document a 13.7 percent increase in the ratio of annual report trading volume to estimation period trading volume following the implementation of the new reporting regime. I also document that abnormal bid-ask spreads are, on average, 0.126 lower in the post-period relative to the pre-period, which is economically significant as the mean abnormal bid-ask spread of the sample in the pre-period is 0.138. Taken together, these results provide statistically and economically significant evidence that enhanced auditor and audit committee reports are associated with a reduction in information asymmetry.

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<sup>4</sup> Note that Leuz and Verrecchia (2000) do not use an “abnormal” measure of trading volume and bid-ask spreads.

<sup>5</sup> Please refer to Section III for more information.

As the reporting changes are unlikely to affect all firms equally, I also perform cross-sectional analyses to exploit the potential variation in the usefulness of the new disclosures. Specifically, I expect firms with weaker information environments (as proxied by lower analyst coverage) to benefit more from the enhanced auditor and audit committee reports. In line with this prediction, I find greater reductions in information asymmetry as the number of analysts following the firm decreases. Additionally, I perform an analysis of the differences in the usefulness of the new reports based upon the degree of detail that tends to be included in certain auditors' reports under the new regime. A recent study of the new U.K. audit reports published by Citigroup concludes that new audit reports issued by KPMG provide the most useful disclosures among the Big 4 firms while the new EY reports provide the least useful information among the Big 4 auditors (Fisher and Deans 2014). Based on this observation, I find some evidence that information asymmetry decreased more (less) for firms audited by KPMG (EY) compared to the remaining three Big 4 firms.

In the analyses described above, I employ a balanced panel by requiring each sample firm to be present in both the pre and post periods. This technique uses each company as its own control, which alleviates the threat of time-invariant, firm-level correlated omitted variables (Carcello and Li 2013).<sup>6</sup> It is also important to note that the information asymmetry measures employed (i.e., abnormal trading volume and abnormal bid-ask spreads) capture the event period volume and bid-ask spreads *relative* to estimation period values of these proxies. This design mitigates the concern that other events occurring within a short time period before the annual report release for each company are driving the results.<sup>7</sup> As in any event study, however, there is

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<sup>6</sup> In untabulated analyses, I use firm fixed effects and my results remain quantitatively and qualitatively unchanged.

<sup>7</sup> The cross-sectional analyses also help mitigate the correlated omitted variable problem because the omitted variable would need to affect the groups differently to remain a concern.

still a concern that contemporaneous events may confound the analysis. To alleviate the concern that global changes and events could influence the degree of information asymmetry present in the market, I re-perform the analysis using two control groups. The first control group is comprised of U.S. companies. These firms are affected by global events that also impact U.K. firms, but they are not subject to the new U.K. reporting regime. In a full sample of U.K. and U.S. firms as well as a propensity score matched sample, I find that abnormal trading volume (abnormal bid-ask spreads) increase (decrease) more for U.K. firms compared to U.S. firms from the pre-period to the post-period. The second control group consists of firms listed on the Alternative Investment Market (AIM), which is a sub-market of the London Stock Exchange. These firms are not subject to the revised auditor and audit committee report requirements, but are affected by other U.K. specific events. The results indicate that compared to AIM firms, firms complying with the new reporting requirements experience a greater decrease in information asymmetry. Thus, these additional analyses continue to reveal the significant impact enhanced auditor and audit committee disclosures have on the degree of information asymmetry present and mitigate the threat that contemporaneous events are confounding the results of this study.

Furthermore, to account for temporal changes within firms that are not associated with the revised reporting requirements, I re-perform the tests using a strict change analysis. I find that the increase (decrease) in abnormal trading volume (abnormal bid-ask spreads) is significantly greater from the year prior ( $t-1$ ) to the implementation year ( $t$ ) than the change in these measures from the two years prior ( $t-2$ ) to the prior year ( $t-1$ ). These results provide further evidence of a decrease in information asymmetry due to the new auditor and audit committee disclosures and provide comfort that the results are not driven by other factors that change over

time.

Finally, I perform two additional analyses to mitigate the concern that the results are driven by changes in management disclosure practices that may have occurred around the same time as the implementation of the new auditor and audit committee reports. The only management disclosure regulatory change that occurred during this timeframe was the formal requirement of a strategic review in the annual report. I randomly select a sample of firms and compare each company's strategic report in the current year annual report to its business review in the prior year annual report. Confirming the commonly held sentiment that the strategic report requirement did not materially change management's disclosures, I do not find any significant differences in the primary disclosures. Therefore, the formal implementation of strategic reports is unlikely to impact my analysis. In addition, I perform a falsification test by examining changes in abnormal trading volume and abnormal bid-ask spreads around the earnings announcement dates for the sample firms. Since the audit committee and auditor reports are not released to the market until the annual report date, I do not expect to find significant changes around earnings releases. Consistent with this expectation, I fail to find evidence of a reduction in information asymmetry around earnings announcement dates. The lack of results assists in alleviating the concern that the findings of this study are due to a change in management disclosure practices.

By examining the effect of the United Kingdom's recent reporting regime changes on investors, this study provides relevant and timely information about a highly debated regulatory issue. I find that additional mandated auditor and audit committee disclosures provide investors with new and useful information that impacts their trading decisions. This reduction in information asymmetry affects public companies, investors, regulators, other financial statement users, and the overall capital markets. In addition to commenting on the effect of these changes

in the United Kingdom (an important market to examine in isolation), this setting informs the debates occurring globally.<sup>8</sup> Regulatory bodies, including the Public Company Accounting Oversight Board (PCAOB), the Securities and Exchange Commission (SEC), the International Auditing and Assurance Standards Board (IAASB), and the European Parliament, are also deliberating the enhancement of audit committee and auditor reporting. In particular, given the legal and cultural similarities between the United Kingdom and the United States, the examination of the U.K.'s revised regulations presents important considerations for the evaluation of the standards proposed by regulators in the United States.

The remainder of the paper is organized as follows. Section II provides background on auditor and audit committee reporting and develops the primary hypothesis. Section III outlines the research method and discusses the sample. Section IV presents the results of the study and Section V describes additional analyses. The final section concludes.

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<sup>8</sup> The United Kingdom ranked fourth in market capitalization of all countries with over \$3 trillion in market capitalization in 2012 behind the United States, China, and Japan (WorldBank 2014).

## II. BACKGROUND AND HYPOTHESIS DEVELOPMENT

### Background on the U.S. Audit Report

“Audits of public companies can involve scores of auditors, thousands of hours, and millions in fees. The documentation in support of the auditor’s opinion is voluminous. Indeed, with the possible exception of senior financial management, in most cases, the auditor knows more about the financial statements and financial reporting risk of the audited company than other individuals, both inside and outside the company (including members of the audit committee). Notwithstanding this significant accumulated knowledge, the only communication between the auditor and investors is typically a boilerplate three-paragraph letter (hardly a “report,” despite the commonly used title) that is essentially identical for the overwhelming majority of all public companies” (Blake et al. 2011).

As described in the above quote, some stakeholders are frustrated with the limited information provided by the audit report despite the substantial work performed and insight obtained by the external auditor. While several groups have recommended changes to the standardized “pass/fail” model (AICPA 1978; NCFRR 1987), the U.S. audit report has only been revised twice since its initial adoption in the United States during the 1940s: (1) the inclusion of a scope paragraph per SAS No. 58 in 1988 and (2) the requirement to report on internal control over financial reporting per Section 404 of the Sarbanes-Oxley Act of 2002.<sup>9</sup> Studies that examine these previous changes to the U.S. auditor’s report find mixed evidence as to whether the revised reports provide incremental value to financial statement users. Some surveys of investors, bankers, and loan officers document that additional communication from auditors enhances the users’ understanding of the audit and impacts their investment decisions while other empirical research fails to find a significant impact of the “new” reports (Beneish et al. 2008; Kelly and Mohrweis 1989; Miller et al. 1993).

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<sup>9</sup> The American Institute of Accountants (AIA) and the New York Stock Exchange worked together to improve financial reporting and out of this cooperation, published a recommended audit report format in 1934. A standard audit report, however, was not formally adopted until the AIA’s members approved the adoption of auditing standards in 1948 (Carmichael and Winters 1982).

Studies examining the current U.S. audit report conclude that the report has some “symbolic value, but conveys little communicative value” due to its standardized nature (Church et al. 2008). Prior research also reveals that users sometimes misinterpret the terminology included in the report as well as the level of assurance provided by the auditor (Asare and Wright 2012; Gray et al. 2011). Participants in a focus group conducted by Gray et al. (2011) suggest that audit reports would provide more meaningful information if client-specific content was included rather than the boilerplate report currently issued.<sup>10</sup> Furthermore, a survey of sophisticated financial statement users reports that 79 percent of the participants want more informative audit report disclosures regarding management’s significant judgments and estimates (Carcello et al. 2011a). Additionally, 77 percent of the respondents desire auditor disclosures of the greatest financial statement and audit risks as well as the audit procedures performed to address the risks (Carcello et al. 2011a).<sup>11</sup>

In response to stakeholder dissatisfaction with the current auditor report, regulators have taken action to improve the transparency of the audit report. Most notably, the PCAOB proposed a new audit reporting model on August 13, 2013 (PCAOB 2013). The proposed changes are aimed at providing more insight into the audit process and creating a report that is entity and engagement specific. The revisions, if passed, would require a discussion of critical audit matters (“CAMs”) in order to increase transparency in the areas that were the most significant and/or most difficult in the audit.<sup>12</sup> The PCAOB’s proposal also requires additional information on the

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<sup>10</sup> Similarly, Turner et al. (2010) recommend an expanded audit report that varies from client to client and discusses several items including materiality, auditor independence, financial statement and reporting system quality, and business sustainability. Furthermore, Mock et al. (2013) determine that stakeholders “desire more information about the auditor, the audit, and the financial statements”.

<sup>11</sup> Also refer to the CFA Institute’s 2011 survey of its members. 58 percent of the respondents indicated that the auditor’s report should provide more specific information about how the auditors reached their opinion (CFA 2011).

<sup>12</sup> In particular, the proposed rule defines critical audit matters as “those matters addressed during the audit that (1) involved the most difficult, subjective, or complex auditor judgments; (2) posed the most difficulty to the auditor in

auditor's independence, tenure, and responsibilities for fraud and financial statement notes (PCAOB 2013).<sup>13</sup>

Recent experimental studies reveal potential benefits and consequences of the PCAOB's proposed rule. Christensen et al. (2014) examine the relevance of the PCAOB's critical audit matter proposed rule by performing an experiment with nonprofessional investors. The authors find that investors are more likely to alter their investment decision when the standard audit report contains a discussion of critical audit matters compared to investors that were provided with the standard audit report (Christensen et al. 2014). Kachelmeier et al. (2014), however, reveal a potential unintended consequence of the PCAOB's proposal as their experiment suggests that the disclosure of a CAM is viewed as a "partial disclaimer of auditor responsibility for the area identified as a CAM".

### **Background on the U.S. Audit Committee Report**

Audit committees are recognized as integral components of a well functioning financial reporting environment. They are responsible for overseeing managements' financial reporting processes as well as the audit processes of public companies (Beasley et al. 2009). While the importance of audit committees has been widely accepted and documented (see Carcello et al. (2011b) for a literature review), the communication between these committees and stakeholders is fairly limited. In the United States, the preparation of an audit committee report was voluntary until the SEC adopted a rule in 2000 that requires publicly listed companies to include a report in

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obtaining sufficient appropriate evidence; or (3) posed the most difficulty to the auditor in forming the opinion on the financial statements" (PCAOB 2013).

<sup>13</sup> Audit reporting changes have also been proposed by the IAASB and the European Parliament. The IAASB proposed an audit report model in July of 2013 that requires auditors to include key audit matters ("KAMs"), which are similar to the PCAOB's "CAMs" (IAASB 2013b). In addition, in April 2014, the European Parliament endorsed a draft agreement that requires audit reports to provide an assessment of the firm's overall financial statements as well as detailed information of the audit process that allowed the auditor to appropriately make the assessment (Cohn 2014).

its annual proxy statement that states whether the committee fulfilled its responsibilities (SEC 2000).<sup>14</sup> This rule was enacted with the intention of promoting investor confidence in the financial reporting process (SEC 2000). While studies find that most listed companies properly adopted the newly mandated audit committee disclosures (Pandit et al. 2006; Rezaee et al. 2003), the level of voluntary disclosures is variable (Carcello et al. 2002; Pandit et al. 2006).

In recent years, the value of audit committee disclosures has been questioned. The National Association of Corporate Directors (NACD) reports that the audit committees' disclosures are minimalistic and do not adequately communicate the work performed by audit committees (NACD 2013). In its review of voluntary audit committee disclosures, Ernst & Young finds that only eight percent of the sample companies disclosed specific matters discussed by audit committees and auditors (EY 2013a). Given the limited information provided by audit committee reports, various groups have called for greater audit committee transparency. For instance, in response to the PCAOB's Concept Release on mandatory audit firm rotation issued on August 16, 2011, many comment letters opposed rotation but suggested increasing audit committee disclosures regarding its role in the external audit process in order to improve audit independence without the potential costs of rotation (EY 2013b). Even some audit committee members desire the expansion of audit committee disclosure as one delegate at the 2013 NACD meeting stated: "Frankly we don't do a good job of communicating what we do. The public doesn't see all the work we do, quarter after quarter" (NACD 2013).

Professional governance advocates have formally discussed audit committee report improvements in the United States. For example, on November 20, 2013 the Center for Audit

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<sup>14</sup> Prior studies find that very few firms included a separate audit committee report in their annual report and, of the companies that did voluntarily provide an audit committee report, Turpin and DeZoort (1998) document that the reports were boilerplate.

Quality (CAQ) issued a powerful “call to action” to “encourage all public company audit committees to thoughtfully reassess their reporting and communication with stakeholders and, if need be, to strengthen them in the future” (CAQ 2013). The Investor Advisory Group (IAG) of the PCAOB presented a report at a board meeting held on October 20, 2014 that evaluated the current state of audit committee regulation and noted the need for more transparency from audit committees in the United States (IAG 2014).<sup>15</sup> These requests from governance advocates and the IAG have prompted regulatory action. The SEC plans to issue a concept release in early 2015 that will explore possible changes to the audit committee report in order to provide more useful information to investors (Heller 2014; White 2014; Whitehouse 2014).

### **United Kingdom Reporting Regime Changes**

In the fall of 2012, the FRC issued changes to the U.K. Corporate Governance Code, its Guidance for Audit Committees, and the International Standards on Auditing (U.K. and Ireland). Effective for financial years ending on or after September 30, 2013, this regulatory reform requires additional disclosures in the audit committee report as well as additional language in the auditor’s report. Specifically, the FRC issued revised governance policies instructing audit committees to include in their report “the significant issues that the committee considered in relation to the financial statements and how these issues were addressed, having regard to matters communicated to it by the auditors” (FRC 2012b). Furthermore, if the auditor is not satisfied with the audit committee’s reporting of the matters communicated by the auditor to the audit committee, then the auditor is obligated to include such information in the auditor’s report (FRC 2012a). The revised standard also added the requirement to discuss the evaluation of the external audit as well as the process by which the external auditor is appointed or reappointed

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<sup>15</sup> Also, in April 2013, the Council of Institutional Investors revised its policies on audit committee reporting to include more information about the committee’s role and operations (CII 2013).

(FRC 2012b). In addition, the audit committee report must include information on audit firm tenure and state the timing of the most recent tendering of the audit contract (FRC 2012b).<sup>16</sup>

The FRC implemented further changes to the auditor's report when it issued revisions to the International Standard on Auditing (U.K. and Ireland) 700 in June 2013. These reforms also take effect for financial years ending on or after September 30, 2013 and instruct auditors to include a discussion of assessed risks of material misstatement, materiality, and the scope of the audit in their report (FRC 2013). Specifically, the auditor is required to describe risks that had the "greatest effect on the overall audit strategy, the allocation of resources in the audit, and directing the efforts of the engagement team" (FRC 2013). With regard to materiality, the audit report should now include an explanation of how materiality was applied during the planning and performance of the audit as well as a disclosure of the specific materiality threshold employed in the audit (FRC 2013). Finally, the auditor is directed to provide information about how the scope of the audit addressed the assessed risks of material misstatement as well as how the auditor's materiality determination influenced the scope of the audit (FRC 2013).<sup>17</sup>

The study of the United Kingdom's new reporting regime is critical to inform the debates occurring internationally. While investors have requested more disclosures from both auditors and audit committees, it is unknown ex-ante whether the new information will be useful to investors. The evidence thus far has been limited to surveys, focus groups, and experiments given that reporting reforms have not been implemented in the United States or a similar country

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<sup>16</sup> An additional piece of the regulation requires audit committees of FTSE 350 companies to retender the audit contract at least every 10 years on a "comply or explain" basis.

<sup>17</sup> For an example of the new audit committee and auditor reports, please refer to pages 44 – 46 and 130 – 135, respectively, of the Rolls-Royce 2013 annual report found at [http://www.rolls-royce.com/Images/RR\\_Full%20Annual%20Report\\_tcm92-55530.pdf](http://www.rolls-royce.com/Images/RR_Full%20Annual%20Report_tcm92-55530.pdf).

until recently.<sup>18</sup> This study uses the U.K.'s reporting changes as a “quasi-natural experiment” to determine if investors did in fact find the new reports useful. My analysis is particularly relevant to the reporting debate occurring in the United States as these two countries share similar levels of disclosure and securities regulation as well comparable cultures and accounting traditions (Hail and Leuz 2006; La Porta et al. 1997). Furthermore, as highlighted in the above discussion, the audit committee and auditor report changes being considered in the United States are similar to those recently implemented in the United Kingdom.

### **Hypothesis Development**

Prior literature examining overall disclosure environments generally finds that greater disclosure requirements are associated with benefits to capital markets in the form of decreased information asymmetry. Hail and Leuz (2006), for instance, find that firms in countries with greater disclosure requirements are associated with a significantly lower cost of capital. Similarly, Leuz and Verrecchia (2000) document that German firms switching to a higher standard of disclosure are associated with decreased information asymmetry as proxied by lower bid-ask spreads and higher trading volume. Lang et al. (2012) also reveal lower transaction costs and increased liquidity for companies with greater transparency. Furthermore, Blankespoor et al. (2014) find that voluntary disclosure of firm news through Twitter is associated with lower abnormal bid-ask spreads and greater liquidity.

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<sup>18</sup> To my knowledge, the only country that previously introduced additional language in a standard audit report is France. As part of its Financial Security Act effective August 1, 2003, France requires auditors to make “justifications of assessments” related to accounting policy choice, significant accounting estimates, financial statement presentation, and internal controls (CNCC 2011). France’s Financial Security Act is similar to the Sarbanes-Oxley Act. It was designed to improve investor confidence in the French capital markets by reinforcing investor protection, improving the supervision of financial activities, modernizing the external audit function, and improving corporate transparency. Given this broad range of issues, I do not use this regulatory change in France as a setting for testing the auditor’s report. In addition, the study of the French auditor’s report would limit the generalizability to the U.S. due to the significant differences between the two countries. For example, France operates under civil law while the U.S. operates under common law (La Porta et al. 1997).

In addition, academic studies have examined the information content of specific documents, including 10-K reports and audit opinions. Botosan (1997), for example, finds that greater voluntary disclosure in a firm's annual report is associated with a lower cost of equity capital for firms with low analyst coverage. By examining stock returns around 10-K filings, De Franco et al. (2011) determine that detailed footnote information can enhance the usefulness of annual reports. Campbell et al. (2014) examine the SEC mandate to include a risk factor section in 10-K filings and find that the disclosures provide valuable information to users as evidenced by the consideration of the risk factors in investor assessments of firm value. More specifically related to the audit environment, Gassen and Skaife (2009) find that mandating disclosure of going concern issues increased the information content of audit reports in Germany as measured by significant negative abnormal returns after the reforms compared to no market reaction prior.

Based on this prior disclosure research, it seems feasible that enhanced audit committee and auditor disclosure requirements could decrease information asymmetry by providing new and useful information to investors in several ways. For one, the increased disclosures could provide investors an opportunity to gain a glimpse at the valuable perspective that auditors and audit committees have on companies, which would aid in investment decisions. In particular, the inclusion of critical financial statement risks in the audit committee and auditor reports could focus the attention of investors on "issues that would be pertinent to understanding the financial statements" (Buller 2013). Furthermore, increased knowledge of the audit process and the audit committee's oversight of the auditor may better equip investors in their evaluation of these monitors, which could impact the informational value investors assign to their reports. In addition, insight into the work performed by audit committees and auditors could build greater public trust and confidence in the entire financial reporting process (Touche 2014). Specifically

related to the audit reporting enhancements, global asset manager Hermes stated in its comment letter to the FRC that “disclosing this information will provide shareholders with fuller insights into the audit process, potentially instilling greater confidence in the quality of the audit and the value added by the process, and so also instilling greater confidence in the quality of corporate reporting” (Melvin 2013). Similarly, clearer communication of the audit committee’s activities and responsibilities should enhance “users’ perceptions of audit quality” as it provides confirmation of the “active involvement of a high-quality, transparent audit committee” (IAASB 2013a). If the new reports do serve to increase investors’ trust in the audit committee’s oversight and the auditor’s procedures, then investors are likely to rely more on the information in their trading decisions.

It, however, is possible that the additional disclosures required in the audit committee and auditor reports may not be useful to investors for several reasons. First, the information provided may simply be of little interest to financial statement users. For example, even though KPMG UK has been in favor of enhancing the audit report, the firm’s comment letter to the FRC stated they do not “expect shareholders would find descriptions of just the audit process of great interest – as, for example, car drivers do not normally want a long description of an electronic diagnostic process when their car is serviced” (Cates 2013). It is therefore possible that investors may not view information provided about the auditor’s process and the audit committee’s work as relevant to their trading decisions. Furthermore, the additional information may not add any real substance as the disclosures do not alter the overall opinion of the auditors and audit committees (Cardiff 2013). In the case of the audit report, for instance, the main objective of the report is the pass/fail opinion, which remains unchanged by the inclusion of the additional audit process information. Second, there have been numerous regulatory and standard setting

enhancements over the past decade that have “increased the investing public’s confidence in the quality of a registrants’ financial statements” (e.g., management certification of the financial statements in the U.S. and the audit partner signature requirement in the U.K.) (Goff 2013; Carcello and Li 2013). Additional disclosures in the audit committee and auditor reports may not provide any “meaningful benefit” given the insight investors currently have in the firms in which they invest (Goff 2013). Third, it is possible that investors may suffer from “information overload – a phenomenon in which ever-increasing amounts of disclosure make it difficult for an investor to wade through the volume of information she receives to ferret out the information that is most relevant” (White 2013). Prior literature examining the complexity of annual report disclosures have found some evidence of an “information overload” effect as they report that greater complexity is associated with users opting out of processing the disclosures (Miller 2010; You and Zhang 2008). It is therefore possible that investors may not find the additional disclosures valuable in their trading decisions if they view them as uninteresting, unnecessary, or too daunting to process.

Given the call from investors for increased disclosures from auditors and audit committees (Carcello et al. 2011a; CFA 2011; Gray et al. 2011; Mock et al. 2013; PCAOB 2014), I predict that investors will find the new reports more useful and the greater transparency will serve to reduce information asymmetry. I thus state the following hypothesis in alternative form:

***H1: Additional required disclosures in audit committee and auditor reports reduce information asymmetry.***

### III. RESEARCH METHOD

#### Information Asymmetry Analysis

To test *HI*, I utilize two proxies for information asymmetry: abnormal trading volume (Asthana et al. 2004; DeFond et al. 2007; Landsman et al. 2012) and abnormal bid-ask spreads (Bushee et al. 2010; Blankespoor et al. 2014). A reduction in information asymmetry, as predicted in *HI*, would be indicated by an increase in abnormal trading volume and a decrease in abnormal bid-ask spreads. I focus on these measures as prior literature contends that volume is the “most visible indicator of investors’ response to public disclosures” (Miller 2010) and the bid-ask spread is “commonly thought to measure information asymmetry explicitly” (Leuz and Verrecchia 2000). More specifically, trading volume captures liquidity and the willingness of investors to sell and others to buy. Therefore, the greater the willingness of market participants to transact in firm shares, the less information asymmetry present (Leuz and Verrecchia 2000). Similarly, bid-ask spreads represent the cost arising from the presence of asymmetrically informed investors in the market and the more narrow the spread, the fewer information asymmetries (Leuz and Verrecchia 2000).

These proxies also have the benefit of being calculated over a short time horizon, which allows me to take advantage of the unique relation between earnings announcements and annual report filings in the United Kingdom. Specifically, earnings announcements are released several weeks before the annual report, but contain largely the same information as the annual report.<sup>19,20</sup>

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<sup>19</sup>I randomly selected 40 companies and examined the earnings releases for each. The documents contain an average of 42 pages with many reports over 75 pages (maximum length: 132 pages). Furthermore, all of them contained a discussion of the business strategy/results, financial statements, and condensed footnotes. It is also important to note that earnings were announced prior to the release of the annual report for each firm-year observation included in the sample.

<sup>20</sup>The Financial Conduct Authority (FCA) states that a preliminary statement of annual results (i.e., the earnings announcement) must show financial results consistent with the presentation to be adopted in the annual report, must include any significant additional information necessary to assess the reported results, and must give details of any

The primary difference between the two filings in the United Kingdom is the inclusion of the audit report and the audit committee report.<sup>21</sup> Therefore, by examining differences in abnormal trading volume and abnormal bid-ask spreads around the annual reports before and after the reporting revisions, I am able to isolate the change in information asymmetry attributable to the additional audit committee and auditor disclosures. I employ the following regression models to do so:

$$AVOL_{it} = \beta_0 + \beta_1 POST_{it} + \beta_2 LN\_MVE_{it} + \beta_3 NUM\_ANALYST_{it} + \beta_4 SD\_CFO_{it} + \beta_5 DISP_{it} + \beta_6 LOSS_{it} + \beta_7 UE_{it} + \beta_8 LAG_{it} + IND\_FE + \varepsilon_{it} \quad (1)$$

$$ASPREAD_{it} = \beta_0 + \beta_1 POST_{it} + \beta_2 LN\_MVE_{it} + \beta_3 NUM\_ANALYST_{it} + \beta_4 SD\_CFO_{it} + \beta_5 DISP_{it} + \beta_6 LOSS_{it} + \beta_7 UE_{it} + \beta_8 LAG_{it} + IND\_FE + \varepsilon_{it} \quad (2)$$

Abnormal trading volume (*AVOL*) equals the natural logarithm of the ratio of a firm's mean event-period volume to the firm's average estimation-period volume (DeFond et al. 2007; Landsman et al. 2012).<sup>22</sup> The event-period volume is the daily volume for a firm on the two-day window beginning on the firm's event date scaled by its shares outstanding during the event period (DeFond et al. 2007). The estimation-period volume is measured over the trading period beginning 61 days before the earnings announcement date and ending 40 days later (i.e., 21 days before the earnings release) (DeFond et al. 2007; Miller 2010).<sup>23</sup> The abnormal bid-ask spread (*ASPREAD*) is calculated as a firm's average event-period daily percent spread less the firm's mean estimation-period daily percent spread (Blankespoor et al. 2014; Bushee et al. 2010). The

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likely modification of the auditor report to be included in the annual report (FCA 2012).

<sup>21</sup> Other governance reports, such as the nomination committee, ethics committee, and risk committee reports, would also be "new" information in the annual report compared to the earnings announcement. These reports, however, have not systematically changed across companies in the period examined in this study.

<sup>22</sup> As in Landsman et al. (2012), *AVOL* is highly skewed prior to taking the natural logarithm. The skewness coefficient before taking the natural log is 45.26 compared to a skewness coefficient of -0.29 after.

<sup>23</sup> Note that the estimation-period is measured relative to the earnings announcement date when calculating *AVOL*. This is done to ensure that the estimation period for the annual report date does not include the filing of the earnings release.

daily percent spread equals the bid-ask spread divided by the midpoint of the bid and ask price, all multiplied by 100.<sup>24</sup> To ensure consistency, the same event-period and estimation-period are used to compute *ASPREAD* and *AVOL*. The variable of interest, *POST*, equals one if the fiscal year is the first year of the new reporting regime and zero otherwise. In line with *H1*, I expect the coefficient on *POST* ( $\beta_i$ ) to be positive and significant in model (1) and negative and significant in model (2) as I predict that the new audit committee and auditor reports will be more useful to investors compared to the previously required reports and serve to reduce information asymmetry.

Following prior literature (DeFond et al. 2007; Landsman et al. 2012; Blankespoor et al. 2014), I include several controls in the model that may impact a firm's abnormal trading volume and bid-ask spread.<sup>25,26</sup> Firm size (*LN\_MVE*) is measured as the natural logarithm of the market value of equity at the firm's fiscal year-end. Since prior research reports mixed results for the association between firm size and abnormal trading activity (i.e., volume and bid-ask spreads), I do not make a prediction for this coefficient (Bamber et al. 2011). I also control for other aspects of a firm's information environment, including the number of analysts following the firm (*NUM\_ANALYST*), the reporting lag between the earnings announcement and the issuance of the annual report (*LAG*), the firm's cash flow volatility (*SD\_CFO*), and the standard deviation of analysts' earnings forecasts scaled by stock price (*DISP*).<sup>27</sup> Following prior literature, I expect

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<sup>24</sup> As in Blankespoor et al. (2014), I remove spreads greater than 90 percent of the midpoint price. Results remain quantitatively and qualitatively unchanged if this restriction is not imposed.

<sup>25</sup> Following prior literature, equations (1) and (2) do not include a control for the type of auditor employed by the firm. In untabulated tests, the results remain quantitatively and qualitatively unchanged by the inclusion of an indicator for Big 4 auditors. I also eliminate six firms from the analysis that experienced an auditor switch and results remain unchanged in untabulated tests. Please refer to Section V for an additional analysis of auditor type.

<sup>26</sup> In untabulated tests, I control for the abnormal trading volume and abnormal bid-ask spread around the firm's earnings announcement date. Results remain quantitatively and qualitatively unchanged. Please refer to Section V for more information on earnings announcement tests.

<sup>27</sup> In untabulated tests, I replace *LAG* with (1) the time between the fiscal year-end and the earnings announcement

analyst coverage to be related to a decrease in information asymmetry while reporting lag is predicted to be associated with an increase in information asymmetry (DeFond et al. 2007; Landsman et al. 2012). Furthermore, abnormal trading activity during this time period could be attributed to the earnings reported by the firm. I therefore include an indicator for negative earnings (*LOSS*) and the absolute value of unexpected earnings (*UE*). As in DeFond et al. (2007) and Landsman et al. (2012), I predict that *LOSS* will be associated with an increase in information asymmetry. In addition, I employ industry fixed effects (*IND\_FE*) to take into account the likely differences in trading volume and bid-ask spreads across industries. Refer to Appendix B for complete variable definitions.

### **Sample**

The regulatory changes in the United Kingdom apply to firms that are required to comply with the U.K. Corporate Governance Code. Only entities with a Premium listing of equity shares on the London Stock Exchange are subject to the Governance Code (FRC 2012b, 2013). I therefore obtain a record of all companies with a Premium listing on the London Stock Exchange from the exchange's website (N=937). Of these Premium listings, 428 observations relate to investment funds. Given the unique characteristics of investment funds, I exclude these listings and focus the analysis on commercial equity companies (N=509).

As the regulatory changes became effective for financial years beginning on or after October 1, 2012, I obtain data related to the first annual report issued under the new regime (*t*) as well as the last annual report filed under the previous standards (*t-1*).<sup>28</sup> I employ a balanced panel

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and (2) the time between the fiscal year-end and the issuance of the annual report. The results of the analysis are unchanged using these alternate definitions of *LAG*.

<sup>28</sup> Only three companies, to my knowledge, voluntarily adopted these requirements in the prior reporting period: Vodafone Group, British Sky Broadcasting Group PLC, and Ashmore Group PLC. These observations are excluded from my analysis. In untabulated tests, I include data for these firms related to their voluntary adoption year and the

by requiring the necessary data for each firm in both time periods. This approach allows the comparison of firms in the pre-period to the same firms in the post-period, which reduces the threat of firm-level correlated omitted variables (Doyle and Magilke 2013). I hand collect the annual report dates from Bloomberg for  $t$  and  $t-1$ , which results in the loss of 101 firms missing an annual report date for one or both periods. I gather daily volume, daily bid and ask prices, and relevant financial statement data for control variables from Datastream. In addition, I obtain analyst forecast data including earnings announcement dates from I/B/E/S on Datastream. After gathering all requisite data, the final sample is comprised of 291 firms (or 582 firm-year observations). Refer to Table 1 for more detail related to sample construction.

<Insert Table 1 Here>

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prior year and the results remain quantitatively and qualitatively unchanged.

## IV. RESULTS

### Univariate Results

Table 2 presents the comparison of the means of each dependent variable (*AVOL* and *ASPREAD*) as well as each control variable for the pre-period ( $POST=0$ ) and the post-period ( $POST=1$ ). Abnormal trading volume (*AVOL*) around the annual report release date significantly increased from -0.038 prior to the new reporting requirements to 0.096 during the first year of implementation of the new auditor and audit committee reports ( $p<0.05$ ).<sup>29</sup> Furthermore, abnormal bid-ask spreads (*ASPREAD*) significantly decreased from 0.138 in the pre-period to 0.002 in the post-period ( $p<0.01$ ).<sup>30</sup> These univariate results provide initial evidence in support of *H1*. Specifically, the preliminary findings indicate that the enhanced audit committee and auditor reports are associated with reductions in information asymmetry as measured by higher abnormal trading volume and lower abnormal bid-ask spreads.

It is important to note that there are no statistically significant differences in the control variables between the pre-period and the post-period, which suggests that the sample firms did not meaningfully change in the two time periods examined. Table 2 also reveals that the companies included in this study are large firms (mean *LN\_MVE* of 14.367 in the post period and 14.175 in the pre period) that are covered by 11 to 12 analysts on average (*NUM\_ANALYST*). The average lag between the earnings announcement and the issuance of the annual report (*LAG*) is around 27 days in both periods. The analyst forecast dispersion (*DISP*) of the sample firms is low with a mean dispersion of 0.009 in both the pre and post periods. Furthermore, only

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<sup>29</sup> I also compute *AVOL* without taking the natural logarithm to provide an easier interpretation of the abnormal trading volume ratio. This unlogged version has a mean of 1.45 in the pre-period and 2.07 in the post-period. The results using the unlogged version are quantitatively and qualitatively unchanged. It is also worth noting that negative means/medians of *AVOL* are common around annual report dates (Asthana et al. 2004; Miller 2010).

<sup>30</sup> The positive values for *ASPREAD* indicate that on average the issuance of the annual report does not lower information asymmetry relative to the estimation period. This is similar to prior studies that reveal that *ASPREAD* on average is positive around earnings announcements (Bushee et al. 2010).

14 – 15 percent of the firms record a loss (*LOSS*) in the pre and post periods, suggesting that the sample is comprised of profitable firms on average. Additionally, the mean unexpected earnings (*UE*) and cash flow volatility (*SD\_CFO*) of the sample firms in the post-period are 0.015 and 0.041, respectively.

<Insert Table 2 Here>

### **Multivariate Results**

Table 3 presents the findings from the estimation of equations (1) and (2). Column 1 reveals that *POST* is positively associated with *AVOL* ( $p < 0.05$ ), which suggests that abnormal trading volume significantly increased around the annual reports issued under the new reporting regime compared to the prior period. This result is also economically significant as I document a 13.7 percent increase in the ratio of annual report trading volume to estimation period trading volume from the pre-period to the post-period.<sup>31</sup> Similarly, column 2 of Table 3 indicates that *POST* is negatively associated with *ASPREAD* ( $p < 0.05$ ), suggesting that abnormal bid-ask spreads significantly decreased surrounding the release of the annual reports in the first year of implementation relative to the previous year. Economically, abnormal bid-ask spreads are, on average, 0.126 lower in the post-period relative to the pre-period. This is economically significant as the mean abnormal bid-ask spread of the sample in the pre-period is 0.138. Taken together, these results provide statistically and economically significant evidence that the enhanced auditor and audit committee reports are more useful to investors than the previously required reports. Thus, in support of *HI*, I find that the new reporting regime significantly decreased the degree of information asymmetry present.

<Insert Table 3 Here>

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<sup>31</sup> The increase is calculated as the percentage change in the dependent variable from the pre-period to the post-period. This percentage change is defined as  $e^z - 1$ , where  $z$  is the coefficient on the independent variable.

In regard to the control variables, the results tend to follow prior literature. As found in DeFond et al. (2007) and Landsman et al. (2012), the number of analysts (*NUM\_ANALYST*) is positively associated with abnormal trading volume whereas the reporting lag (*LAG*) is related to lower abnormal trading volume. These results indicate that the market on average views the annual reports of firms with greater analyst coverage and lower reporting lags as more useful and informative. I also find that the size of the company (*LN\_MVE*) is associated with lower bid-ask spreads, suggesting that larger firms on average experience less information asymmetry.

## V. ADDITIONAL ANALYSES

### Cross-Sectional Tests

In the main analysis, I find that revised audit committee and auditor report requirements are associated with a decrease in information asymmetry. The reporting changes, however, are unlikely to affect all firms equally. In this section, I identify sources of potential variation in the usefulness of the additional disclosures and perform cross-sectional analyses to exploit this heterogeneity.

#### *Analyst Coverage Analysis*

I expect the enhanced auditor and audit committee disclosures to have a greater impact on firms with weaker information environments. I use analyst coverage as a proxy for the amount of information disclosed and available to investors about the firm (Botosan 1997; Miller 2010; Blankespoor et al. 2014). The more communication provided to investors from the firm or through analysts, the less disclosures from other parties, including auditors and audit committees, will likely impact investor's trading decisions. I therefore expect that additional disclosures in auditor and audit committee reports to have a greater effect on investors in firms with lower analyst following. To test this prediction, I estimate equations (1) and (2) on subsamples divided at the median analyst coverage (median  $NUM\_ANALYST=10$ ). I also estimate the models on the full sample and include an interaction of  $POST$  and  $NUM\_ANALYST$ .

Panels A and B of Table 4 present the results of this analysis for  $AVOL$  and  $ASPREAD$ , respectively. Column 1 of Panel A (B) reveals that firms with a high analyst following do not experience a significant increase (decrease) in abnormal trading volume (abnormal bid-ask spreads) around the implementation of the auditor and audit committee report revisions. In column 2 of Panels A and B, however, I find that firms with low analyst coverage are associated with a significant increase in abnormal trading volume and a significant decrease in abnormal

bid-ask spreads from the pre-period to the post-period (both  $p < 0.05$ ). In the third column of each panel, I include the interaction of *POST* and *NUM\_ANALYST* and re-run the analysis on the full sample of firms. The negative (positive) coefficient on the interaction term in Panel A (B) suggests that as analyst coverage increases, the less information asymmetry is reduced from the year prior to the regulatory changes to the first year of implementation ( $p < 0.05$  and  $p < 0.10$ , respectively). In other words, as the information environment weakens (i.e., analyst following decreases), the greater the reduction in information asymmetry as a result of the additional auditor and audit committee disclosures.

<Insert Table 4 Here>

#### *Auditor Analysis*

Audit firms likely implemented the revised report requirements in their own fashions, and therefore, it is probable that the degree to which investors found a firm's new audit report useful varies by auditor.<sup>32,33</sup> In fact, a recent study published by Citigroup reveals meaningful differences among the new U.K. audit reports issued by the Big 4 firms (Fisher and Deans 2014). The researchers conclude that "KPMG [includes] the most useful analysis of risk, while the lack of detail provided means EY typically lags behind the other Big 4 in its discussion of risk" (Fisher and Deans 2014).<sup>34</sup> I explore whether investors responded to these differences in new

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<sup>32</sup> While not directly tested, it is also likely like that the information disclosed in the auditor's report influences the information contained in the audit committee report. In future tests, I will use hand collected data from both audit and audit committee reports to further explore the effects of reporting differences.

<sup>33</sup> In untabulated tests, I examine whether the impact of the auditor and audit committee report revisions on abnormal trading volume and bid-ask spreads varied between firms with a Big 4 auditor versus firms with a non-Big 4 auditor. However, since Big 4 firms audit over 92 percent of the companies in this study's main sample, it is not surprising that I do not document a differential impact based on whether the firm is audited by a Big 4 or non-Big 4 auditor.

<sup>34</sup> The Citigroup report appears to deem a report useful if the information provided is entity-specific and if there is a great degree of detail regarding risks, materiality, and scope. KPMG UK has also stated that they expect "shareholders to be more interested in matters like misstatements or disagreements with management identified during the audit and how these have been resolved" (Cates 2013). In fact, KPMG UK has now formally implemented an approach to reporting that goes further than the FRC's requirements (Collins and Cates 2014).

reports issued by KPMG and EY. Based on Citigroup's observation, I expect to find that information asymmetry decreased more (less) for firms audited by KPMG (EY) compared to the remaining Big 4 firms. To test this expectation, I create an indicator variable for firms audited by KPMG in the current year (*KPMG*) and another variable for firms audited by Ernst & Young in the current year (*EY*). I limit the sample to companies audited by a Big 4 firm in order to compare each of these audit firms to the remaining three. After eliminating six firms that switched auditors from the pre-period to the post-period, I estimate models (1) and (2) including one of the audit firm indicators (*EY* or *KPMG*) and the interaction of the auditor indicator and *POST*. In untabulated tests, I find that abnormal trading volume increased more (less) for firms audited by KPMG (EY) compared to the remaining three audit firms from the pre-period to the post-period ( $p < 0.10$  and  $p < 0.05$ , respectively). The abnormal bid-ask spread tests do not reveal significant differences between KPMG (EY) and the remaining Big 4 firms surrounding the implementation of the new report requirements, but the coefficient on *POST*  $\times$  *KPMG* is negative ( $p = 0.15$ ) and the coefficient on *POST*  $\times$  *EY* is positive ( $p = 0.19$ ) as expected. These tests provide some evidence in support of Citigroup's observation that the information contained in the reports issued by KPMG (EY) are more (less) useful than the reports issued by the other major audit firms under the new reporting regime.

### **Control Group Analysis**

#### *US Control Group*

While the use of a balanced sample reduces the threat of time-invariant firm-specific characteristics that may confound the analysis, it is possible that global changes and events occurring during the same timeframe as the revisions to the audit committee and auditor reporting standards could influence the degree of information asymmetry present in the market. I therefore re-perform the analysis using a control group of U.S. companies since these firms are

impacted by global events that also affect U.K. companies, but they are not subject to the new U.K. reporting regime. The use of this control group therefore mitigates the concern that global changes might be correlated omitted variables (Carcello and Li 2013).

I gather data for all firms listed on the New York Stock Exchange (NYSE) that are included in Compustat, I/B/E/S, Audit Analytics, and Datastream.<sup>35</sup> The final sample consists of 1,760 U.S. firm-year observations and 582 U.K. firm-year observations.<sup>36</sup> Using this sample, I estimate models (1) and (2) adding an indicator variable for the U.K. premium companies (*UK*) as well as an interaction of *POST* and *UK*. Since U.S. firms are not subject to the enhanced auditor and audit committee reporting requirements, I expect abnormal trading volume (abnormal bid-ask spreads) to increase (decrease) more for U.K. firms compared to U.S. firms from the pre-period to the post-period. As such, I predict that the coefficient on *POST x UK* will be positive in the estimation of model (1) and negative in the estimation of model (2). In line with these expectations, I find that *POST x UK* is significantly positive in column 1 of Table 5 ( $p < 0.10$ ) and significantly negative in column 2 ( $p < 0.01$ ).

Furthermore, to ensure these results are not due to fundamental observable differences in U.K. and U.S. firms, I create a propensity score matched sample and re-perform the analysis. The propensity score matching model employs *UK* as the dependent variable and uses all control variables from equations (1) and (2). Using the propensity scores generated from this model, I

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<sup>35</sup> Note that Datastream is used to gather trading volume and bid-ask spread data since CRSP data is only available through December 31, 2013.

<sup>36</sup> Twenty-one of the U.K. Premium equity companies in the sample are cross-listed on the NYSE. I perform two untabulated tests related to these firms. First, I exclude the cross-listed observations and the results remain quantitatively and qualitatively the same. Second, I restrict the U.K. sample to the 21 firms cross-listed in the U.S. and find that compared to U.S. firms, the U.K. cross-listed firms have a larger decrease in abnormal bid-ask spreads ( $p < 0.05$ ) from the pre-period to the post-period. The coefficient on *POST x UK* in the abnormal trading volume model is positive, but insignificant using this significantly reduced sample.

match U.K. firms to U.S. firms with the closest score.<sup>37</sup> Columns 3 and 4 of Table 5 indicate that the results hold using this matched sample. Specifically, the coefficient on *POST x UK* is significantly positive in the estimation of model (1) and significantly negative in the estimation of model (2) (both  $p < 0.05$ ). Taken together, these results continue to demonstrate the significant impact enhanced auditor and audit committee disclosures have on the degree of information asymmetry present in the firms required to comply with the regulatory changes.

<Insert Table 5 Here>

#### *AIM Control Group*

In untabulated tests, I use firms listed on the London Stock Exchange that are not subject to the revised auditor and audit committee report requirements as an alternate control group (i.e., non-Premium equity companies). These firms are listed on the Alternative Investment Market (AIM), which is a sub-market of the London Stock Exchange. I gather data from Datastream and hand collect annual report dates from Bloomberg, which results in a balanced sample of 100 AIM companies.<sup>38</sup> The AIM is designed for smaller, growing companies and thus consists of firms that are significantly different than the more established Premium equity companies.<sup>39</sup>

Given these significant differences, I generate a propensity score matched sample of Premium and AIM firms. The propensity score matched sample consists of 168 firm-year observations (42 Premium and 42 AIM firms). Using this significantly reduced sample, I estimate equations (1) and (2) adding an indicator variable to denote Premium listing companies

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<sup>37</sup> I employ a caliper of 3 percent within the matching process to ensure a reasonable level of matching. In addition, the matching process is performed without replacement – thus no observations are duplicated in the matched sample. It is important to note that untabulated tests confirm that there are no significant differences in the control variables of the U.K. and U.S. firms in the matched sample.

<sup>38</sup> Given the nature of firms listed on the AIM, the availability of data is limited for these companies, especially after imposing the balanced panel requirement.

<sup>39</sup> In untabulated tests, I confirm these differences and find that all control variables from equations (1) and (2) are significantly different between the AIM and Premium firms at the  $p < 0.01$  level except for *DISP*.

(*PREMIUM*) as well as interaction of *PREMIUM* and *POST*. In untabulated tests, I find that the coefficient on *POST*  $\times$  *PREMIUM* is positive and significant ( $p=0.08$ ) in equation (1) and negative and approaching significance ( $p=0.11$ ) in equation (2). This analysis provides some additional comfort that U.K. specific events (other than the new audit committee and auditor disclosures) are not confounding the results of the study.

### **Change Analysis**

To account for temporal changes within firms that are not associated with the revised reporting standards, I re-run the above tests using a strict change analysis. Specifically, I compare changes in the dependent variables from  $t-2$  to  $t-1$  with changes in these variables from  $t-1$  to  $t$  (as in the above analyses,  $t$  represents the year the new reporting regime is implemented). I replace *POST* with *CHG\_POST*, which equals one for observations associated with changes from year  $t-1$  to year  $t$ . All other variables in the models, including the respective dependent variables, are also transformed to change variables. Table 6 presents the results of this analysis.<sup>40</sup> Columns 1 and 2 reveal that *CHG\_POST* is associated with a highly significant increase in abnormal trading volume ( $p<0.01$ ) and a significant decrease in abnormal bid-ask spreads ( $p<0.05$ ), respectively. These results further support a reduction in information asymmetry after the revision of the auditor and audit committee report requirements. In addition, the examination provides comfort that the documented findings are not driven by other factors that change year to year for firms.

<Insert Table 6 Here>

### **Management Disclosure Analysis**

Finally, to alleviate concerns that the results are driven by changes in management

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<sup>40</sup> Note that the additional data requirements for  $t-2$  result in the loss of 132 firm-year observations.

disclosure practices, I perform two additional analyses described below.

#### *Strategic Reports Review*

While several measures are employed to mitigate the concern of confounding events (i.e. balanced panel design, control groups, and change analysis), it still may be possible that other changes occurring over the same timeframe that only apply to U.K. Premium listed companies could impact the results. The only such change that I am aware of is the requirement to replace the business review section of the annual report with a strategic report that includes information on the company's strategy, business model, human rights, and gender diversity of its employees and directors (Deloitte 2013). While the requirement went into effect for fiscal years ending on or after September 30, 2013, the U.K. Corporate Governance Code has recommended this reporting model on a 'comply or explain' basis since 2010 (Deloitte 2013). Furthermore, as KPMG Partner Tim Copnell states, "The requirement for a Strategic Report...is essentially the same as the Business Review it replaces...It is not clear how much a change in requirements this represents" (Copnell 2013). I randomly selected 40 Premium firms and compared the company's strategic report in the current year's annual report to its business review in the prior year's annual report. Each report contained the same primary disclosures. As I did not note any exceptions, this review supports the commonly held sentiment that the strategic reports did not materially change management's disclosures and therefore this regulatory change is unlikely to impact my analysis.

#### *Earnings Announcement Analysis*

I also perform a falsification test by estimating models (1) and (2) around the earnings announcement dates for the sample firms. Since the audit committee and auditor reports are not released to the market until the annual report is issued and the reporting requirements for earnings announcements did not change during this time period, I do not expect to find a reduction in information asymmetry surrounding the earnings announcements of the sample

firms. In support of this prediction, I fail to find evidence that abnormal trading volume and abnormal bid-ask spreads significantly changed from the pre-period to the post-period.<sup>41</sup> This analysis provides additional comfort that the main findings of this study are not due to changes in management disclosure practices or overall changes in the dependent variables over time for the sample firms.

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<sup>41</sup> While I did not expect to find changes in the abnormal trading volume and bid-ask spreads around the earnings announcement dates from the prior year to the first year of implementation of the reporting requirements, it is possible that the new audit committee and auditor report requirements could impact management's disclosure practices around earnings releases over time. Future research could examine whether the information contained in earnings announcements change over time as a result of the auditor and audit committee reporting changes.

## VI. CONCLUSION

While substantial revisions to audit committee and auditor reporting are being discussed worldwide, archival research has been unable to examine the impact of these reforms. I exploit the United Kingdom's recent regulatory changes to fill this void. Using a balanced sample of U.K. firms required to comply with the reporting revisions, I find that additional audit committee and auditor disclosures are associated with a significant reduction in information asymmetry as proxied by higher abnormal trading volume and lower abnormal bid-ask spreads. Furthermore, I find greater reductions in information asymmetry for firms with weaker information environments, suggesting that the new disclosures particularly benefit investors in these firms. I also find some evidence that companies employing auditors that tend to provide more (less) detailed audit reports experience more (less) significant reductions in information asymmetry. In addition, the results are robust to the use of control samples, a strict change analysis, and a falsification test using earnings announcement dates.

By examining the impact of the U.K.'s new audit committee and auditor reports, this study provides important information for public companies, audit firms, audit committees, investors, regulators, other financial statement users, and the overall capital markets. The results reveal that additional required auditor and audit committee disclosures can provide investors with useful information that impacts their trading decisions. My analysis not only reveals the effects of these regulatory changes in the United Kingdom, but also presents considerations for the evaluation of the standards proposed by regulators of other major capital markets internationally, particularly the PCAOB and the SEC.

In conclusion, I outline the following limitations and opportunities for future research. This study provides relevant and timely information to regulators, investors, professional groups,

and other stakeholders by examining the first year of implementation of the audit committee and audit reporting standards in the United Kingdom. Whether the documented effects persist in future years is unknown and would be an important research question in its own right. Additionally, while there are numerous regulatory and cultural commonalities between the United Kingdom and the United States, there are three differences in these countries that may be important to consider: (1) litigation tends to play a greater role in the development and enforcement of regulations in the U.S. than in the U.K., (2) U.S. financial accounting standards are ‘rules-based’ while the U.K.’s standards are ‘principles-based’, and (3) the U.K.’s FRC sets auditing, governance, and accounting standards while several regulatory bodies are responsible for setting these standards in the U.S., namely the PCAOB, SEC, and FASB. This last difference between the countries presents an additional challenge to the United States as more than one regulator would need to be involved to institute both audit committee and auditor reporting changes. The results of this paper therefore need to be interpreted with these considerations in mind and future research could illuminate the possible impact of these differences on audit committee and audit report reforms. Notwithstanding the above, this research informs a highly relevant regulatory debate on the effects of changing auditor and audit committee reports.

## **LIST OF REFERENCES**

- AICPA. 1978. *The Commission on Auditors' Responsibilities: Report, Conclusions, and Recommendations*. New York, NY.
- Asare, S. K., and A. M. Wright. 2012. Investors', Auditors', and Lenders' Understanding of the Message Conveyed by the Standard Audit Report on the Financial Statements. *Accounting Horizons* 26 (2):193-217.
- Asthana, S., S. Balsam, and S. Sankaraguruswamy. 2004. Differential Response of Small versus Large Investors to 10-K Filings on EDGAR. *The Accounting Review* 79 (3):571-589.
- Bamber, L. S., O. E. Barron, and D. E. Stevens. 2011. Trading Volume Around Earnings Announcements and Other Financial Reports: Theory, Research Design, Empirical Evidence, and Directions for Future Research. *Contemporary Accounting Research* 28 (2):431-471.
- Beasley, M. S., J. V. Carcello, D. R. Hermanson, and T. L. Neal. 2009. The Audit Committee Oversight Process. *Contemporary Accounting Research* 26 (1):65-122.
- Beneish, M. D., M. B. Billings, and L. D. Hodder. 2008. Internal Control Weaknesses and Information Uncertainty. *The Accounting Review* 83 (3):665-703.
- Beresford, D. R. 2013. Comment Letter on PCAOB Rule Making Docket Matter No. 34: Proposed Auditing Standards on the Auditor's Report and the Auditor's Responsibilities Regarding Other Information and Related Amendments.
- Blake, K., J. V. Carcello, N. J. Harrison, M. J. Head, B. E. Roper, A. Simpson, T. Sondhi, R. M. Tarola, L. E. Turner, M. Williams, and A. Yerger. 2011. Response of a Subgroup of the PCAOB's Investor Advisory Group to the PCAOB's Concept Release Concerning Reports on Audited Financial Statements and Related Amendments to PCAOB Standards. *Current Issues in Auditing* 5 (2):C21-C50.
- Blankespoor, E., G. S. Miller, and H. D. White. 2014. The Role of Dissemination in Market Liquidity: Evidence from Firms' Use of Twitter™. *Accounting Review* 89 (1):79-112.
- Botosan, C. A. 1997. Disclosure level and the cost of equity capital. *Accounting Review* 72 (3):323.
- Buller, S. E. 2013. BlackRock Comment Letter on PCAOB Rule Making Docket Matter No. 34: Proposed Auditing Standards on the Auditor's Report and the Auditor's Responsibilities Regarding Other Information and Related Amendments.
- Bushee, B. J., J. E. Core, W. Guay, and S. J. W. Hamm. 2010. The Role of the Business Press as an Information Intermediary. *Journal of Accounting Research* 48 (1):1-19.
- Campbell, J., H. Chen, D. Dhaliwal, H.-m. Lu, and L. Steele. 2014. The information content of mandatory risk factor disclosures in corporate filings. *Review of Accounting Studies* 19 (1):396-455.

- CAQ. 2013. Enhancing the Audit Committee Report: A Call to Action. Available from <http://www.auditcommitteecollaboration.org/EnhancingtheAuditCommitteeReport-ACalltoAction.pdf>.
- Carcello, J. V., N. J. Harrison, G. Sauter, and A. Yerger. 2011a. Improving the Auditor's Report. Presented at the PCAOB Investor Advisory Group Meeting on March 16, 2011.
- Carcello, J. V., D. R. Hermanson, and T. L. Neal. 2002. Disclosures in Audit Committee Charters and Reports. *Accounting Horizons* 16 (4):291-304.
- Carcello, J. V., D. R. Hermanson, and Y. Zhongxia. 2011b. Corporate Governance Research in Accounting and Auditing: Insights, Practice Implications, and Future Research Directions. *AUDITING: A Journal of Practice & Theory* 30 (3):1-31.
- Carcello, J. V., and C. Li. 2013. Costs and Benefits of Requiring an Engagement Partner Signature: Recent Experience in the United Kingdom. *The Accounting Review* 88 (5):1511-1546.
- Cardiff, M. 2013. Grant Thornton UK Comment Letter on FRC Revision to ISA (UK and Ireland) 700: Requiring the auditor's report to address risks of material misstatement, materiality and a summary of audit scope.
- Carmichael, D. R., and A. J. Winters. 1982. The Evolution of Audit Reporting. *Auditing Symposium VI: Proceedings of the 1982 Touche Ross/University of Kansas Symposium on Auditing Problems*.
- Cates, T. 2013. KPMG UK Comment Letter on FRC Revision to ISA (UK and Ireland) 700: Requiring the auditor's report to address risks of material misstatement, materiality and a summary of audit scope.
- CFA. 2011. Usefulness of the Independent Auditor's Report: Survey to the CFA Institute Financial Reporting Survey Pool.
- Christensen, B. E., S. M. Glover, and C. J. Wolfe. 2014. Do Critical Audit Matter Paragraphs in the Audit Report Change Nonprofessional Investors' Decision to Invest? . *Forthcoming at Auditing: A Journal of Practice and Theory*.
- Church, B. K., S. M. Davis, and S. A. McCracken. 2008. The Auditor's Reporting Model: A Literature Overview and Research Synthesis. *Accounting Horizons* 22 (1):69-90.
- CII. 2013. Policies on Corporate Governance. Section 2.13a: Audit Committee Responsibilities Regarding Independent Auditors.
- CNCC. 2011. Footprint Consultant Study on the perception of the statutory auditor's justification of assessments.

- Cohn, M. 2014. European Parliament Moves Ahead on Audit Firm Reforms. Available at <http://www.accountingtoday.com/news/european-parliament-moves-ahead-on-audit-firm-reforms-70226-1.html>.
- Collins, S., and T. Cates. 2014. KPMG UK Sharing audit insights: Our approach to reporting our findings.
- Copnell, T. 2013. Strategic report - An opportunity (not to be) missed? *KPMG UK Research* October 23, 2013.
- De Franco, G., M. H. F. Wong, and Z. Yibin. 2011. Accounting Adjustments and the Valuation of Financial Statement Note Information in 10-K Filings. *The Accounting Review* 86 (5):1577-1604.
- DeFond, M., M. Hung, and R. Trezevant. 2007. Investor protection and the information content of annual earnings announcements: International evidence. *Journal of Accounting and Economics* 43 (1):37-67.
- Deloitte. 2013. A new beginning: Annual report insights 2013. Available at <http://www.deloitte.com/assets/Dcom-UnitedKingdom/Local/Assets/Documents/Services/Audit/uk-audit-a-new-beginning-printer-friendly-13.pdf>.
- Doyle, J. T., and M. J. Magilke. 2013. Decision Usefulness and Accelerated Filing Deadlines. *Journal of Accounting Research* 51 (3):549-581.
- EY. 2013a. Audit committee reporting to shareholders: 2013 proxy season update.
- . 2013b. Audit committee reporting to shareholders: going beyond the minimum. Join the conversation on audit committee transparency. February 2013.
- FCA. 2012. LR 9.7A.1 Preliminary statement of annual results.
- Fisher, T., and S. Deans. 2014. New UK Auditor's Reports Update. *Citigroup Research* September 3, 2014.
- FRC. 2012a. International Standard on Auditing (UK and Ireland) 700: The independent auditor's report on financial statements. Revised October 2012.
- . 2012b. The UK Corporate Governance Code. Revised September 2012.
- . 2013. International Standard on Auditing (UK and Ireland) 700: The independent auditor's report on financial statements. Revised June 2013.
- Gassen, J., and H. A. Skaife. 2009. Can Audit Reforms Affect the Information Role of Audits? Evidence from the German Market. *Contemporary Accounting Research* 26 (3):867-898.

- Goff, P. G. 2013. TIAA-CREF Comment Letter on PCAOB Rule Making Docket Matter No. 34: Proposed Auditing Standards on the Auditor's Report and the Auditor's Responsibilities Regarding Other Information and Related Amendments.
- Gray, G. L., J. L. Turner, P. J. Coram, and T. J. Mock. 2011. Perceptions and Misperceptions Regarding the Unqualified Auditor's Report by Financial Statement Preparers, Users, and Auditors. *Accounting Horizons* 25 (4):659-684.
- Hail, L., and C. Leuz. 2006. International Differences in the Cost of Equity Capital: Do Legal Institutions and Securities Regulation Matter? *Journal of Accounting Research* 44 (3):485-531.
- Heller, M. 2014. Investors Suggest External Auditor Review of Audit Committees. *CFO.com*. October 24, 2014.
- IAASB. 2013a. A Framework for Audit Quality: Consultation Paper. January 2013.
- . 2013b. Reporting on Audited Financial Statements: Proposed New and Revised International Standards on Auditing (ISAs). Revised July 2013.
- IAG. 2014. Report from the Working Group on the Relationship and Role of the Auditor with the Audit Committee. *PCAOB Investor Advisory Group Meeting*. October 20, 2014.
- Kachelmeier, S. J., J. J. Schmidt, and K. Valentine. 2014. The Effect of Disclosing Critical Audit Matters in the Auditor's Report on Perceived Auditor Responsibility for Misstatements. [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2481284](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2481284).
- Kelly, A. S., and L. C. Mohrweis. 1989. Bankers' and Investors' Perceptions of the Auditor's Role in Financial Statement Reporting: The Impact of SAS No. 58. *AUDITING: A Journal of Practice & Theory* 9 (1):87.
- La Porta, R., F. Lopez-De-Silanes, A. Shleifer, and R. W. Vishny. 1997. Legal Determinants of External Finance. *Journal of Finance* 52 (3):1131-1150.
- Landsman, W. R., E. L. Maydew, and J. R. Thornock. 2012. The information content of annual earnings announcements and mandatory adoption of IFRS. *Journal of Accounting and Economics* 53 (1–2):34-54.
- Lang, M., K. V. Lins, and M. Maffett. 2012. Transparency, Liquidity, and Valuation: International Evidence on When Transparency Matters Most. *Journal of Accounting Research* 50 (3):729-774.
- Leuz, C., and R. E. Verrecchia. 2000. The Economic Consequences of Increased Disclosure. *Journal of Accounting Research* 38 (3):91-124.
- Melvin, C. 2013. Hermes Comment Letter on FRC Revision to ISA (UK and Ireland) 700: Requiring the auditor's report to address risks of material misstatement, materiality and a summary of audit scope.

- Miller, B. P. 2010. The Effects of Reporting Complexity on Small and Large Investor Trading. *The Accounting Review* 85 (6):2107-2143.
- Miller, J. R., S. A. Reed, and R. H. Strawser. 1993. Bank Loan Officers' Perceptions of the New Audit Report. *Accounting Horizons* 7 (1):39-52.
- Mock, T. J., J. Bédard, P. J. Coram, S. M. Davis, R. Espahbodi, and R. C. Warne. 2013. The Audit Reporting Model: Current Research Synthesis and Implications. *AUDITING: A Journal of Practice & Theory* 32 (Supplement 1):323-351.
- NACD. 2013. Audit Committee Chair Advisory Council: Summary of Proceedings. June 19, 2013.
- NCFRR. 1987. *Report of the National Commission on Fraudulent Financial Reporting (NCFRR)*.
- Pandit, G. M., V. Subrahmanyam, and G. M. Conway. 2006. Are the audit committee reports disclosing enough after the Sarbanes-Oxley Act?: A study of NYSE companies. *Managerial Auditing Journal* 21 (1/2):34-45.
- PCAOB. 2013. Proposed Auditing Standards: The Auditor's Report on an Audit of Financial Statements When the Auditor Expresses an Unqualified Opinion. August 13, 2013.
- . 2014. Standing Advisory Group (SAG) Meeting Transcript. June 24, 2014.
- Rezaee, Z., K. O. Olibe, and G. Mimmier. 2003. Improving corporate governance: The role of audit committee disclosures. *Managerial Auditing Journal* 18 (6/7):530-537.
- SEC. 2000. Final Rule: Audit Committee Disclosure. January 10, 2000. Available at <http://www.sec.gov/rules/final/34-42266.htm>.
- Touche, W. 2014. PCAOB Public Meeting on the Auditor's Reporting Model. April 3, 2014. Available at [http://pcaobus.org/Rules/Rulemaking/Docket034/04032014\\_Transcript.pdf](http://pcaobus.org/Rules/Rulemaking/Docket034/04032014_Transcript.pdf).
- Turner, J. L., T. J. Mock, P. J. Coram, and G. L. Gray. 2010. Improving Transparency and Relevance of Auditor Communications with Financial Statement Users. *Current Issues in Auditing* 4 (1):A1-A8.
- Turpin, R. A., and F. T. DeZoort. 1998. Characteristics of Firms that Include an Audit Committee Report in Their Annual Report. *International Journal of Auditing* 2 (1):35-48.
- Vanstraelen, A., C. Schelleman, R. Meuwissen, and I. Hofmann. 2012. The Audit Reporting Debate: Seemingly Intractable Problems and Feasible Solutions. *European Accounting Review* 21 (2):193-215.
- White, M. J. 2013. The Path Forward on Disclosure. October 15, 2013. Available at <http://www.sec.gov/News/Speech/Detail/Speech/1370539878806 -.U0w418dw1Ns>.

- . 2014. Remarks at the Financial Accounting Foundation Trustees Dinner. *U.S. Securities and Exchange Commission Speech*. May 20, 2014.
- Whitehouse, T. 2014. SEC Plans Early 2015 Concept Release on Audit Committee Upgrades. *Compliance Week*. October 22, 2014.
- WorldBank. 2014. Market capitalization of listed companies. Available at <http://data.worldbank.org/indicator/CM.MKT.LCAP.CD>.
- You, H., and X.-j. Zhang. 2008. Financial reporting complexity and investor underreaction to 10-K information. *Review of Accounting Studies* 14 (4):559-586.

## **APPENDICES**

## Appendix A: Tables

**Table 1: Sample Construction**

Table 1 presents the sample selection process for the main analysis performed in this study. The final sample is comprised of 291 firm observations or 582 firm-year observations.

	<b>Firm Observations</b>
Premium Equity Listings on London Stock Exchange	937
Less: Investment Funds	(428)
Premium Equity Commercial Companies	509
Less: Firms missing annual report dates in Bloomberg	(101)
Less: Firms missing data necessary to calculate <i>AVOL</i> and <i>ASPREAD</i>	(82)
Less: Firms missing data necessary to compute control variables	(35)
<b>Final Sample (firm observations)</b>	<b>291</b>
<b>Final Sample (firm-year observations)</b>	<b>582</b>

**Table 2: Univariate Results**

Table 2 presents the differences in means between the pre-period and post-period for each variable of interest (*AVOL* and *ASPREAD*) as well as each control variable in equations (1) and (2). All variables are defined in Appendix B. \*\* and \*\*\* indicate significance at the 0.05 and 0.01 levels, respectively (based on one-tailed tests when a direction is predicted, two-tailed otherwise).

		<i>POST=0</i> (N=291)	<i>POST=1</i> (N=291)	Difference	p-value	
<i>AVOL</i>	+	-0.038	0.096	0.133	0.041	**
<i>ASPREAD</i>	-	0.138	0.002	-0.136	0.008	***
<i>LN_MVE</i>		14.175	14.367	0.193	0.205	
<i>NUM_ANALYST</i>		11.694	11.406	-0.289	0.329	
<i>LAG</i>		27.048	27.828	0.780	0.257	
<i>DISP</i>		0.009	0.009	0.000	0.826	
<i>LOSS</i>		0.141	0.151	0.010	0.363	
<i>UE</i>		0.010	0.015	0.005	0.194	
<i>SD_CFO</i>		0.043	0.041	-0.002	0.670	

**Table 3: Regression Results**

Table 3 presents the regression results for the estimation of equation (1) in the first column and equation (2) in the second column. All variables are defined in Appendix B. Robust p-values adjusted for firm clustering effects are presented in parentheses below the coefficients. \* and \*\* indicate significance at the 0.10 and 0.05 levels, respectively (based on one-tailed tests when a direction is predicted, two-tailed otherwise).

VARIABLES		(1) AVOL		(2) ASPREAD
<b>POST</b>	+	<b>0.128**</b>	-	<b>-0.126**</b>
		<b>(0.045)</b>		<b>(0.016)</b>
LN_MVE	?	0.046	?	-0.053**
		(0.243)		(0.048)
NUM_ANALYST	+	0.012*	-	-0.000
		(0.083)		(0.494)
LAG	-	-0.005**	+	0.002
		(0.019)		(0.297)
DISP	?	-1.670	?	-2.835
		(0.465)		(0.424)
LOSS	-	-0.059	+	0.064
		(0.325)		(0.317)
UE	?	0.904	?	0.276
		(0.568)		(0.880)
SD_CFO	?	-0.669	?	0.927
		(0.349)		(0.158)
Constant	?	-1.015*	?	0.309
		(0.074)		(0.547)
Industry Fixed Effects		Yes		Yes
Observations		582		582
R-squared		0.085		0.094

**Table 4: Analyst Following Analysis**

Table 4 presents the analyst following analysis. Panels A and B present the regression results for the estimation of equations (1) and (2), respectively. Columns 1 and 2 present the results for the subsamples of firms with high analyst coverage and low analyst coverage (divided at the median *NUM\_ANALYST*). Column 3 presents the regression results using the full sample of firms including an interaction of *POST* x *NUM\_ANALYST*. All variables are defined in Appendix B. Robust p-values adjusted for firm clustering effects are presented in parentheses below the coefficients. \*, \*\*, and \*\*\* indicate significance at the 0.10, 0.05, and 0.01 levels, respectively (based on one-tailed tests when a direction is predicted, two-tailed otherwise).

<b>Panel A: AVOL</b>					
		High Analyst Coverage	Low Analyst Coverage		Full Sample
VARIABLES		(1) AVOL	(2) AVOL		(3) AVOL
<b>POST</b>	+	<b>-0.005</b> <b>(0.935)</b>	<b>0.298**</b> <b>(0.018)</b>	?	0.314* (0.062)
LN_MVE	?	0.006 (0.893)	0.093 (0.239)	?	0.048 (0.233)
NUM_ANALYST	+	0.003 (0.364)	-0.022 (0.610)	?	0.020** (0.049)
<b>POST x NUM_ANALYST</b>				-	<b>-0.016**</b> <b>(0.045)</b>
LAG	-	-0.005** (0.035)	-0.007* (0.061)	-	-0.005** (0.040)
DISP	?	-3.091* (0.087)	-4.641* (0.055)	?	-1.564 (0.502)
LOSS	-	-0.115 (0.153)	0.026 (0.902)	-	-0.066 (0.608)
UE	?	4.414*** (0.000)	-0.752 (0.691)	?	0.805 (0.616)
SD_CFO	?	-1.464*** (0.000)	1.001 (0.668)	?	-0.649 (0.361)
Constant	?	0.351 (0.588)	-0.700 (0.447)	?	-1.115* (0.051)
Industry Fixed Effects		Yes	Yes		Yes
Observations		303	279		582
R-squared		0.108	0.138		0.090

**Table 4 continued: Analyst Following Analysis**

<b>Panel B: <i>ASPREAD</i></b>					
		High Analyst Coverage	Low Analyst Coverage		Full Sample
VARIABLES		(1) ASPREAD	(2) ASPREAD		(3) ASPREAD
<b>POST</b>	-	<b>-0.026</b> <b>(0.242)</b>	<b>-0.225**</b> <b>(0.032)</b>	?	-0.257* (0.065)
LN_MVE	?	-0.049* (0.066)	-0.025 (0.616)	?	-0.054** (0.044)
NUM_ANALYST	-	0.007 (0.910)	-0.043** (0.045)	?	-0.005 (0.424)
<b>POST x NUM_ANALYST</b>				+	<b>0.011*</b> <b>(0.063)</b>
LAG	+	0.001* (0.089)	0.002 (0.321)	+	0.002 (0.300)
DISP	?	-7.863** (0.033)	0.738 (0.868)	?	-2.910 (0.413)
LOSS	+	0.154* (0.083)	0.039 (0.423)	+	0.069 (0.302)
UE	?	-2.276 (0.452)	1.653 (0.214)	?	0.346 (0.851)
SD_CFO	?	0.187 (0.287)	2.158 (0.202)	?	0.913 (0.166)
Constant	?	0.746* (0.063)	0.798 (0.308)	?	0.380 (0.460)
Industry Fixed Effects		Yes	Yes		Yes
Observations		303	279		582
R-squared		0.382	0.165		0.098

**Table 5: Regression Results using U.S. Control Group**

Table 5 presents the regression results for the estimation of equations (1) and (2) using U.S. firms as a control group. Columns 1 and 2 present the results for a full sample of U.S. and U.K. firms. Columns 3 and 4 present the analysis using a propensity score matched sample. All variables are defined in Appendix B. Robust p-values adjusted for firm clustering effects are presented in parentheses below the coefficients. \*, \*\*, and \*\*\* indicate significance at the 0.10, 0.05, and 0.01 levels, respectively (based on one-tailed tests when a direction is predicted, two-tailed otherwise).

VARIABLES	Full Sample				Propensity Matched Sample			
	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)
	AVOL	ASPREAD	AVOL	ASPREAD	AVOL	ASPREAD	AVOL	ASPREAD
POST	? 0.038 (0.102)	? 0.074* (0.099)	? 0.046 (0.503)	? 0.147 (0.320)	? 0.038 (0.102)	? 0.074* (0.099)	? 0.046 (0.503)	? 0.147 (0.320)
UK	? -0.152** (0.017)	? 0.001 (0.982)	? -0.209** (0.029)	? 0.043 (0.597)	? -0.152** (0.017)	? 0.001 (0.982)	? -0.209** (0.029)	? 0.043 (0.597)
<b>POST x UK</b>	+ <b>0.103*</b> <b>(0.090)</b>	- <b>-0.193***</b> <b>(0.004)</b>	+ <b>0.296**</b> <b>(0.011)</b>	- <b>-0.299**</b> <b>(0.044)</b>	+ <b>0.103*</b> <b>(0.090)</b>	- <b>-0.193***</b> <b>(0.004)</b>	+ <b>0.296**</b> <b>(0.011)</b>	- <b>-0.299**</b> <b>(0.044)</b>
LN_MVE	? -0.008 (0.567)	? -0.097*** (0.000)	? -0.003 (0.932)	? -0.068 (0.111)	? -0.008 (0.567)	? -0.097*** (0.000)	? -0.003 (0.932)	? -0.068 (0.111)
NUM_ANALYST	+ 0.004* (0.065)	- -0.001 (0.251)	+ 0.013** (0.028)	- 0.002 (0.348)	+ 0.004* (0.065)	- -0.001 (0.251)	+ 0.013** (0.028)	- 0.002 (0.348)
LAG	- -0.011*** (0.000)	+ 0.005** (0.012)	- -0.001 (0.306)	+ 0.001 (0.434)	- -0.011*** (0.000)	+ 0.005** (0.012)	- -0.001 (0.306)	+ 0.001 (0.434)
DISP	? -1.956 (0.369)	? -2.501 (0.409)	? 9.778** (0.045)	? 3.079 (0.506)	? -1.956 (0.369)	? -2.501 (0.409)	? 9.778** (0.045)	? 3.079 (0.506)
LOSS	- 0.007 (0.439)	+ -0.115* (0.051)	- -0.107 (0.210)	+ -0.237 (0.905)	- 0.007 (0.439)	+ -0.115* (0.051)	- -0.107 (0.210)	+ -0.237 (0.905)
UE	? 0.884 (0.381)	? 0.017 (0.987)	? -2.660** (0.050)	? 4.402** (0.028)	? 0.884 (0.381)	? 0.017 (0.987)	? -2.660** (0.050)	? 4.402** (0.028)
SD_CFO	? -0.077 (0.863)	? 0.310 (0.630)	? -1.020 (0.208)	? 0.347 (0.798)	? -0.077 (0.863)	? 0.310 (0.630)	? -1.020 (0.208)	? 0.347 (0.798)
Constant	? 0.371 (0.165)	? 1.445*** (0.000)	? 0.279 (0.581)	? 0.936 (0.147)	? 0.371 (0.165)	? 1.445*** (0.000)	? 0.279 (0.581)	? 0.936 (0.147)
Industry Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Total Observations	2,342	2,342	468	468	2,342	2,342	468	468
UK Observations	582	582	234	234	582	582	234	234
US Observations	1,760	1,760	234	234	1,760	1,760	234	234
R-squared	0.100	0.035	0.106	0.073	0.100	0.035	0.106	0.073

**Table 6: Change Analysis**

Table 6 presents the results for the estimation of equations (1) and (2) using a strict change analysis. *CHG\_POST* equals one for observations associated with changes from year  $t-1$  to year  $t$  (where  $t$  represents the year the new reporting regime is implemented). All other variables, including the dependent variables, are also transformed to yearly change variables. Robust p-values adjusted for firm clustering effects are presented in parentheses below the coefficients. \*\* and \*\*\* indicate significance at the 0.05 and 0.01 levels, respectively (based on one-tailed tests when a direction is predicted, two-tailed otherwise).

VARIABLES		(1) CHG_AVOL		(2) CHG_ASPREAD
<b>CHG_POST</b>	+	<b>0.362***</b>	-	<b>-0.225**</b>
		<b>(0.008)</b>		<b>(0.030)</b>
CHG_LN_MVE	?	-0.084	?	0.159
		(0.694)		(0.396)
CHG_NUM_ANALYST	+	-0.005	-	-0.005
		(0.429)		(0.404)
CHG_LAG	-	-0.004	+	-0.000
		(0.146)		(0.470)
CHG_DISP	?	-7.337**	?	5.682
		(0.020)		(0.531)
CHG_LOSS	-	-0.085	+	0.012
		(0.323)		(0.477)
CHG_UE	?	2.279	?	-1.905
		(0.139)		(0.625)
CHG_SD_CFO	?	-0.838	?	-1.446
		(0.601)		(0.418)
Constant	?	-0.237	?	0.078
		(0.534)		(0.880)
Industry Fixed Effects		Yes		Yes
Observations		450		450
R-squared		0.052		0.060

## Appendix B: Variable Descriptions

### Main analysis dependent and test variables

<i>AVOL</i>	The natural logarithm of the ratio of a firm's mean event-period volume to the firm's average estimation-period volume (DeFond et al. 2007; Landsman et al. 2012). Daily trading volume obtained from Datastream.
<i>ASPREAD</i>	The firm's mean event-period spread minus the firm's average estimation-period spread (Blankespoor et al. 2014; Bushee et al. 2010). Daily bid and ask prices obtained from Datastream.
<i>POST</i>	Indicator variable equal to 1 if the fiscal year is the first year of the new reporting regime, 0 otherwise.

### Main analysis control variables

<i>DISP</i>	The standard deviation of analysts' earnings forecasts scaled by stock price. Analyst forecast data obtained from I/B/E/S on Datastream.
<i>IND_FE</i>	Industry fixed effects based on two-digit industry codes. Obtained from Datastream.
<i>LAG</i>	The number of calendar days between the earnings announcement date and the annual report release date. Earnings announcement dates obtained from I/B/E/S on Datastream. Annual report dates hand collected from Bloomberg.
<i>LN_MVE</i>	The natural logarithm of the market value of equity measured at end of year $t$ . Obtained from Datastream.
<i>LOSS</i>	Indicator variable equal to 1 if the company's reported earnings per share is less than 0, 0 otherwise. Obtained from Datastream.
<i>NUM_ANALYST</i>	The number of analysts that follow a firm during the year of the earnings announcement. Obtained from I/B/E/S on Datastream.
<i>SD_CFO</i>	Standard deviation of a firm's cash flow from operations over the prior five years, where cash flow from operations is scaled by total assets at the end of each year. Data obtained from Datastream.
<i>UE</i>	The absolute value of the difference between actual earnings per share and the most recent mean analyst estimate of earnings prior to the earnings release, scaled by the closing price at the end of year $t$ . Data obtained from I/B/E/S on Datastream.

## VITA

Lauren C. Reid obtained a Bachelor's degree and a Master's degree in Accountancy from Wake Forest University. She acquired professional experience in the audit practice at Ernst & Young in the firm's Charlotte, NC office. Prior to pursuing her doctorate, Lauren taught graduate and undergraduate financial accounting courses at Wake Forest University. She started the doctoral program at the University of Tennessee in 2010 and has research and teaching interests in auditing and financial accounting. After graduating with a Doctor of Philosophy degree in May, Lauren will begin her academic career at the University of Pittsburgh in the fall of 2015.