Management Going Concern Reporting by Firms Whose Auditors Are Not Concerned

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ABSTRACT

In 2014, the FASB introduced a major change in firms' financial reporting, requiring management to (a) systematically evaluate the firm's ability to continue as a going concern and (b) provide disclosures even when initial assessment of "substantial doubt" about going concern status is mitigated by management's plans. Hitherto, the going concern evaluation had been the sole responsibility of firms' auditors, who issue a "going concern opinion" (AGC) when needed, accompanied by concomitant disclosures by management. As the FASB was focused mainly on non-AGC firms with potential going concern uncertainties, the new standard, Accounting Standards Update 2014-15, has not affected management reporting for AGC firms. As such, we examine management's going concern reporting by non-AGC firms. While the standard introduces new mandatory disclosures, we posit that systematic going concern evaluation will increase the precision of managers' private information and elicit voluntary disclosures by non-AGC firms. We document only a small number of new mandatory disclosures. However, a nontrivial number of firms make new voluntary disclosures stating explicitly that going concern issues do not exist. Importantly, these "explicit clean" disclosures mostly come from relatively more distressed firms (closer to receiving an AGC) and elicit positive market reactions despite their financial distress. These disclosures seem to serve as signals by firms seeking to separate themselves from other stressed firms. Further, they are associated with higher auditor effort suggesting they are costly, but credible signals. Overall, the FASB's mandate appears to have brought clarity to the market for firms at risk of failure.

Keywords: *ASU 2014-15, FASB, Going Concern, Management Voluntary Disclosure, Information Asymmetry, Bankruptcy, Delisting, Market Reaction, Audit Fee, Audit Lag*

JEL Classification: M41, M49

I. INTRODUCTION

A firm's ability to continue as a going concern is of vital interest to capital markets. In 2014, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update 2014-15 (henceforth "the ASU"), introducing new requirements for *management* reporting about their firm's ability to continue as a going concern. Hitherto, firms' *auditors* had the sole responsibility for evaluating going concern status, issuing going concern opinions (henceforth AGCs) for clients assessed to have "substantial doubt" about continuing in existence. For AGC firms, management is required to present concomitant disclosures relating to the AGC. The ASU requires (1) **all** firms to evaluate whether there is substantial doubt about their ability to continue as a going concern and (2) firms with self-assessed substantial doubt to provide specific new management disclosures. Importantly, the standard leaves the management disclosure requirements for firms receiving AGCs unchanged. Therefore, in this study, we focus on the implications of the standard for management reporting on going concern by non-AGC firms (i.e., firms that did not receive going concern opinions from their auditors)."[1]

We document the mandatory and voluntary management disclosures of non-AGC firms in the first year of the standard's adoption and examine the implications of these disclosures for capital markets. Analyzing mandatory disclosures by non-AGC firms is important because the FASB intends that they reveal firms with latent, but not yet visible, going concern issues (FASB 2014). Although the ASU has attracted attention because of the new mandatory disclosures, a less obvious aspect of the standard is its requirement for systematic self-evaluation by all companies of their going concern status. We expect that the process of complying with this self-evaluation

[1] We use the terms "ASU" and "standard" interchangeably. Strictly speaking, the ASU has updated the FASB's Accounting Standards Codification by adding Subtopic 205-40. Presentation of Financial Statements—Going Concern.

(based on the ASU's detailed guidance which would encourage, for example, updated internal control processes) provides managers with more accurate internal information (PwC 2016; EY 2017). We posit that such enhanced information quality can affect voluntary disclosures in addition to mandatory disclosures because, as prior research notes, changes in mandatory reporting requirements may trigger new voluntary disclosures (Einhorn 2005; Einhorn and Ziv 2008; Li and Yang 2016).

Where would the effects of such enhanced information most likely manifest? We argue that the ASU effectively aims to identify firms that have high uncertainty regarding their going concern status but falling short of receiving an AGC.[2] We refer to these firms as GCSUSPECT firms and split non-AGC firms into two groups: (a) GCSUSPECT firms and (b) clean firms with no going concern uncertainty (CLEAN firms). See Figure 1 for a depiction of the going concern continuum. Since these groups are not outwardly identifiable, we define GCSUSPECT firms as non-AGC firms with a high **probability** of receiving an AGC but not receiving one.

We expect new *mandatory* disclosures emerging under the ASU to be concentrated in GCSUSPECT firms rather than CLEAN firms. The ASU mandates management disclosures when initial evaluation identifies conditions that raise substantial doubt even when management has systematic plans to mitigate them.[3] Since GCSUSPECT firms are more likely than CLEAN firms to have initial substantial doubt, the adoption of the ASU will naturally result in more mandatory disclosures for GCSUSPECT firms than for CLEAN firms.

[2] At various points during the long history of discussing going concern reporting, the FASB emphasized the need for "early warning disclosures" by firms that had outwardly unobserved conditions that could pose severe going concern difficulties in later periods (similar to our GCSUSPECT firms). Indeed, this idea was included in the exposure draft for ASU 2014-15 but removed from the final standard. See the final standard (FASB 2014) for a description of its history, and Jiang, Wang, and Wangerin (2018) for a detailed discussion of the process FASB uses to make decisions.
[3] An example of such a disclosure is provided in the much-publicized Form 10-K filing by Sears for the fiscal year ended January 28, 2017. Sears disclosed that conditions suggesting substantial doubt about going concern were mitigated by management plans. This disclosure was accompanied by a clean audit report (i.e., without AGC) from Sears' auditor, Deloitte (Steele 2017).

We also expect the ASU to engender more voluntary disclosures about going concern that are concentrated in GCSUSPECT firms than in CLEAN firms. Because of their high uncertainty, GCSUSPECT firms are inherently characterized by high information asymmetry between managers and investors. The mandatory going concern evaluation process enhances the quality of managers' private information. The FASB notes that entities may need to "implement and document underlying processes and controls" because of the "significant judgments involved on that evaluation." This can potentially increase information asymmetry between GCSUSPECT firms and their investors. Investors' awareness that managers now have improved information sets can generate greater demand for going-concern-related disclosures (Beyer, Cohen, Lys, and Walther 2010). Following prior theoretical and empirical research arguing that firms provide voluntary disclosures to reduce information asymmetry (Kim and Verrecchia 1994; Graham, Harvey, and Rajgopal 2005), we predict that GCSUSPECT firms will provide more voluntary disclosures than CLEAN firms in the first year of the ASU's adoption.

The ASU became effective for the annual period ending after December 15, 2016, and for annual and quarterly periods thereafter. Accordingly, we focus on the first year of adoption of the standard to best isolate the effects of the standard on disclosure behavior and to examine market implications of first-time disclosures. We hand-collected and manually coded mandatory and voluntary management disclosures related to going concern-uncertainties made by non-AGC firms in their annual filings for the first year of adoption of ASU 2014-15 (henceforth, "ASU year").[4] Two features of our classification system are noteworthy. First, to identify the mandatory disclosures, we followed as closely as possible the definition in the ASU, which is

[4] The annual filing in the Form 10-K following the ASU allows us to clearly identify non-AGC firms as it contains the auditor's opinion. In contrast, quarterly filings following this annual report (in which management disclosures are also required) do not contain the audit report.

based on managers discussing "probable" mitigation of initial substantial doubt. Closely following this guidance allows us to separate the disclosures mandated by the ASU from other voluntary disclosures that emerged following the ASU's passage. Second, we classify the voluntary disclosures based on the overall "message" they convey – positive or negative. This, interestingly, reveals (as we discuss below) new disclosures from firms proactively disclaiming any going concern uncertainties.

We document that a very small number of firms in our sample provided the new mandatory disclosures of mitigated substantial doubt required by the standard. All of these firms were located in our GCSUSPECT group as predicted and aligning to the seeming expectations of the FASB. Although this finding is an important documentation of the direct effect of the standard, the small number of firms making these disclosures prevents us from conducting further detailed statistical tests (e.g., multivariate analyses).

Turning to voluntary disclosures, we document two kinds, the second of which is unexpected. First, some firms provide voluntary disclosures describing going concern uncertainties in the ASU year. Such negative voluntary disclosures occurred before the ASU as well (Mayew, Sethuraman, and Venkatachalam 2015).[5] As expected, these voluntary disclosures appear mostly among GCSUSPECT firms. Second, a number of firms provide voluntary disclosures explicitly stating (although not required to do so) that they have **no** going concern issues (henceforth "explicit-clean" firms). These positive voluntary disclosures increased eight-fold in the ASU year compared to the year prior.

[5] Two studies examine voluntary management going concern disclosures in specific settings. Focusing on bankrupt firms, Mayew et al. (2015) examine whether voluntary management going concern disclosures prior to bankruptcy provide information beyond the AGC. They find that such disclosures in MD&A (and linguistic tone) are significant in predicting subsequent bankruptcy. Focusing on initial public offerings, Bochkay, Chychyla, Sankaraguruswamy, and Willenborg (2018) document that management going concern disclosures are associated with downward revisions in IPO offer price and lower initial returns concluding that such disclosures have information content.

Because the explicit-clean disclosures are unexpected and, although voluntary, are the product of the standard, we devote a substantial part of our subsequent analyses to explore them further. Importantly a majority (65%) of these disclosures were made by firms in the GCSUSPECT group, suggesting that the enhanced evaluation procedures may have allowed these firms to reduce information asymmetry through disclosure and to proactively separate themselves from other high-information-asymmetry GCSUSPECT firms. We also explore how the market reacts to these new explicit-clean disclosures, given our expectation that GCSUSPECT firms are motivated to provide these disclosures by the market's demand to reduce information asymmetry. We find that, for the explicit-clean firms, the market reacts positively with a greater than 2% positive abnormal return around the release of the associated Form 10-Ks. This positive market reaction is concentrated in GCSUSPECT firms for which it is over 3% on average, consistent with a market premium for proactively reducing information asymmetry through voluntary disclosures. That is, the market responds most significantly when these explicit statements are made by firms that otherwise would appear to be in an uncertain going concern position.

Does the positive market reaction to explicit-clean disclosures reflect investors' response to a credible signal by management? As a credible signal must be associated with a cost (Spence 1973; Hughes 1986), we propose two costs that firms making explicit-clean disclosures might incur: litigation risk and auditor effort. Our evidence suggests that both costs exist in our setting. GCSUSPECT firms are less likely to provide explicit-clean disclosures in high litigation risk industries. Also, within GCSUSPECT firms, auditor effort, measured by audit fees and audit lag, is higher for firms making explicit-clean disclosures relative to other disclosures. This is consistent with explicit-clean disclosures being costly, supporting their credibility as signals. We also look for more direct evidence that these disclosures are credible signals by examining future firm

failures. None of the non-AGC firms making an explicit-clean disclosure in the ASU year fail (i.e., go bankrupt or delist) during the subsequent going concern assessment period. In comparison, 15 other non-AGC firms (i.e., firms that did not provide an explicit-clean disclosure) in the ASU-year sample failed over a similar assessment period. Although the numbers are small, there is some suggestion that the explicit-clean disclosures are credible.

Our study provides several important contributions to the literature. First, we identify the mandatory disclosures which the FASB presents as the highlight of the standard. Although we identify a very small number of these mandatory disclosures, the fact that they are in the GCSUSPECT group is reassuring from a regulatory perspective because the FASB's intent is to elicit disclosures from this group. Second, we document explicit-clean voluntary disclosures which suggest that the standard, by mandating systematic evaluation of substantial doubt by management, also had spillover effects to voluntary disclosure because such evaluation changed the information set possessed by managers. This phenomenon is consistent with Graham, Harvey, and Rajgopal (2005, p. 58)'s suggestion that one of the uses of voluntary disclosure is to "correct gaps in the usefulness of mandatory financial disclosures to investors."

Lastly, we find that the market reacts positively to explicit disclosures stating a clean going concern outlook when the firm is in a "doubtful" position that could raise questions as to its going concern presumption. This finding is new and different from prior studies on going concern reporting and disclosure, all of which focus on (and document negative market reactions to) auditors' going concern opinions (e.g., Ogneva and Subramanyam 2007; Myers, Shipman, Swanquist, and Whited 2018) and management disclosure of negative going concern issues (e.g., Mayew et al. 2015; Wang 2022). By providing this new, if somewhat surprising, evidence

pertaining to shareholder value, our finding contributes to studies investigating market participants' view of FASB standards (e.g., Khan, Li, Rajgopal, and Venkatachalam 2017).

Our study differs substantively from Wang (2022), which also examines ASU-2014-15.[6] Wang (2022) documents negative market reactions to management disclosures containing "substantial doubt" and other phrases relating to uncertainties following the adoption of the standard. Importantly, their sample includes both AGC and non-AGC firms and they use textual analyses that does not distinguish between the voluntary and mandatory disclosures. In contrast we only examine non-AGC firms, which were the focus of the ASU. Further, because our goal is to examine management's adherence to the FASB's disclosure requirement, we manually code mandatory disclosures of mitigated substantial doubt only if management asserts that the plans can be effectively implemented and can mitigate substantial doubt. Thus, to our knowledge, we are the first study to code the mandatory disclosures using the FASB's definition and assess their alignment with the FASB's goal in requiring them. Due to these differences, we are able to identify non-AGC firms that explicitly state the absence of going concern issues, and present motivating factors for and examine market reaction to, such positive voluntary disclosures.

The remainder of the paper is organized as follows. Section II provides background information on ASU 2014-15 and presents our expectations for disclosures in the ASU year. Section III outlines our sample and identifies going concern disclosures. Section IV describes disclosure patterns and examines motivating factors for disclosures in the ASU year. Section V explores the market reaction to newly identified disclosures, and Section VI provides analyses on the credibility of the disclosures and reasonableness of the market reaction identified in Section V. Section VII concludes.

[6] A now defunct study, Krishnan, Krishnan, and Lee (2018), cited in Wang (2022) examines the effects of the ASU on auditor behavior.

II. BACKGROUND AND RESEARCH EXPECTATIONS

US GAAP requires corporate financial statements to be prepared under the "going concern presumption" that the company will continue to operate for the foreseeable future. In Figure 1, we depict firms' true (unobserved) going concern status, GCSTATUS, as lying along a continuum from (left to right) an unambiguously clean going concern outlook to clear substantial doubt about the firm's going concern outlook. GCSTATUS is determined by financial stress observable from a firm's financial statements and uncertain or less observable factors that may put a firm's going concern status at risk. Examples of unobservable factors include the risk of losing a large customer or failure to receive patent approval for technologies intended to bring a firm to profitability.[7] Mitigating factors that help overcome going concern uncertainties such as plans for restructuring debt covenants also determine GCSTATUS. Such factors are frequently accompanied by significant uncertainty concerning their implications for the firm's ability to survive and contribute to information asymmetry between the firm and investors regarding its GCSTATUS.

In Figure 1, we divide firms along the GCSTATUS continuum into CLEAN, GCSUSPECT and AGC firms. CLEAN firms are financially healthy with no conditions (perceived or real) that would lead management or market participants to question the firm's going concern presumption. AGC firms have considerable GC doubt that auditors can identify as such resulting in the issuance of an AGC. These opinions clarify the going concern position of the firm to the market, and hence, effectively eliminate information asymmetry (Willenborg and McKeown 2000). The FASB evinces no interest in these firms, acknowledging in the ASU the auditor's role in identifying them.

[7] ASU 2014-15 also provides other examples: "work stoppages or other labor difficulties, substantial dependence on the success of a particular project, uneconomic long-term commitments and a need to significantly revise operations… legal proceedings, legislation or similar matters that might jeopardize the entity's ability to operate."

The middle group, GCSUSPECT firms, includes firms with some to considerable GC uncertainty but for which an AGC has not been issued. We argue that the requirements in FASB's ASU 2014-15 will primarily affect this group, which is composed of firms with outwardly unobservable indicators of GC doubt that are generally not as extreme as those for firms receiving AGCs. Absent additional disclosure from management, these firms are characterized by a higher degree of information asymmetry in relation to the firm's going concern status relative to other firms. Some corroboratory evidence that FASB is focused on these firms is provided by SEC comment letters issued, following the adoption of the standard, to firms with potential going concern problems asking for more transparency about their evaluation process under the standard.[8]

Before the adoption of the ASU, the only mandated requirement for management disclosure applied to AGC firms, which are required to elaborate on the substantial doubt conditions in footnotes to their financial statements. Further, some GCSUSPECT firms provided voluntary disclosures regarding going concern uncertainties (Mayew et al. 2015). After the adoption of the ASU, AGC firms are not bound by any new disclosure requirements, and the FASB expects mandated going concern disclosures in the audit opinion and the accompanying financial reports to continue. Instead, as we argue below, the ASU would result in the identification of other firms with GC uncertainties, specifically the GCSUSPECT firms.

Mandatory Requirements in ASU 2014-15

ASU 2014-15 expanded the responsibility for reporting on going concern from one resting

[8] For example, in a 2018 comment letter to Kingsway Financial Services, SEC reviewers asked company management to analyze a series of conditions that appeared to raise substantial doubt about the firm's ability to continue as a going concern. The comment closed by requesting the following: "if substantial doubt was raised, tell us your plans to mitigate these conditions and events as contemplated in ASC 205-40-50-6 through 50-11 and your consideration to disclose either that substantial doubt does not exist after your plans under 50-12 or that substantial doubt does exist after your plans under 50-13 and 50-14." A similar 2018 comment was sent to AerSale Corp asking that management clarify whether its plans have mitigated substantial doubt and, if so, "clearly indicate as such and include a discussion of management's plans to mitigate the conditions or events that raise such doubt."

exclusively on the auditor to dual responsibility between the auditor and management. There are two aspects to the standard, systematic management evaluation of "substantial doubt" and mandatory disclosures in certain situations following the evaluation.

Figure 2 presents an overview of the standard. Management of all entities must first consider whether there is substantial doubt about survival. The standard provides detailed guidance about "management's responsibility to evaluate whether there is substantial doubt about an entity's ability to continue as a going concern and to provide related footnote disclosures" (FASB 2014, p. 1). Unlike auditing standards (which provide no definition) (PCAOB 2017), the ASU provides the following definition (FASB 2014, p.2) : "Substantial doubt about an entity's ability to continue as a going concern exists when relevant conditions and events, considered in the aggregate, indicate that it is probable that the entity will be unable to meet its obligations as they become due within one year after the date that the financial statements are issued (or available to be issued)." If the initial assessment suggests the possibility of substantial doubt, it must evaluate its plans to mitigate the conditions or events that raise substantial doubt by considering if (1) it is probable that the plans will be effectively implemented and (2) it is probable that, when implemented, the plans will mitigate the conditions or events that raise substantial doubt (FASB 2014, p.9). Further, the latter assessment imposes rigor by requiring management to "consider the expected magnitude and timing of the mitigating effect of its plans in relation to the magnitude and timing of the relevant conditions or events that those plans intend to mitigate" (FASB 2014, p.9).

The standard mandates new disclosure requirements based on the evaluation. If management plans are not expected to alleviate substantial doubt, management must disclose the relevant details in footnotes (bottom right of Figure 2). Since such situations will almost certainly require an AGC, these management disclosures required by the ASU are not likely to differ from

those prior to ASU adoption.[9] However, when the plans are determined to mitigate substantial doubt (bottom left of Figure 2), ASU 2014-15 requires extensive management disclosures that are not required for the auditor: (a) the principal conditions or events that raised substantial doubt, (b) management's evaluation of the significance of those conditions or events in relation to the entity's ability to meet its obligations, and (c) the mitigating plans that are expected to alleviate the doubt (FASB 2014).[10] Because GCSUSPECT firms are those with going concern uncertainty close to the AGC threshold, we expect to see more new mandatory disclosures of mitigated substantial doubt for GCSUSPECT firms than for other non-AGC firms (i.e., CLEAN firms).

Potential Voluntary Response to ASU 2014-15

We next consider whether the mandatory GAAP changes introduced by the ASU can elicit new voluntary management disclosures regarding the firm's going concern status. Prior work on the link between mandated reporting requirements and voluntary disclosures shows that reporting mandates can induce increases in voluntary disclosure. Bischof and Daske (2013), using a sample of banks in the European Union (EU), document that firms increase voluntary disclosures after being subject to a one-time mandatory disclosure of sovereign risk exposures. In a broader setting, Li and Yang (2016) document that firms that mandatorily adopted IFRS increased the voluntary provision of management forecasts.

Analogously, we posit that the mandatory requirements in ASU 2014-15 can affect managerial voluntary disclosure behavior. First, the systematic assessment of going concern status

[9] Auditors issue an AGC if initial substantial doubt is determined to be not mitigated by management plans. Even prior to the adoption of the ASU, AGCs were required to be accompanied by management disclosures in the 10-K filing elaborating on conditions leading to the AGC. The ASU provides specific details about these disclosures, reinforcing the already-existing disclosure requirements accompanying an AGC.

[10] Even prior to the adoption of the ASU, firms with suspicion of going concern issues often disclosed mitigating factors and plans in the MD&A section of their 10-K (Behn, Kaplan, and Krumwiede 2001). However, the ASU's detailed disclosure requirements, which includes clear articulation that the plans are probable of occurring and are expected to alleviate the substantial doubt, are likely to be more credible than the mitigating plans in previously provided voluntary disclosures.

required by the standard can increase the scope and precision of managers' private information sets regarding going concern uncertainty.[11] The evaluation of potential substantial doubt involves significant judgment based on consideration of "both qualitative and quantitative information about relevant conditions and events in the aggregate" (FASB 2014, p. 24). Further, execution of this assessment requires implementing, or formalizing, controls to assess risk and to determine the necessary level of analysis (PwC 2016). Such controls would typically include management reviews of cash flow forecasts and related assumptions, debt covenant compliance, and other potential risks related to the firm's going concern status.[12] Second, this increase in the quality of management's information set can amplify the information asymmetry between managers and investors particularly for GCSUSPECT firms which had a high degree of information asymmetry even absent the requirements of ASU 2014-15.

Additionally, since the standard's requirements and its expected effects on managers' private information sets are public knowledge, investors are likely to increase their demand for disclosure on going concern-related matters after the adoption of the ASU. Voluntary disclosure theory predicts that managers' incentives for voluntary disclosures are greater when investors know that managers possess private information (Dye 1985; Jung and Kwon 1988; Beyer et al. 2010). Accordingly, we hypothesize that GCSUSPECT firms have incentives to voluntarily

[11] In a different context, Cheng, Cho, and Yang (2018) show that SFAS 142, which requires regular impairment testing for goodwill, improved firms' internal information environment (as reflected in improved management forecast accuracy) because it induced managers to obtain more information about general economic and business conditions to assess fair value of goodwill. Likewise, Campbell, Khan, and Pierce (2021) document that SFAS 161 removed mispricing that existed before the standard and "that enhanced mandatory derivative disclosures helped correct investors' understanding of the implication of unrealized cash flow hedge gains/losses for future firm performance."

[12] For example, the 2016 SOX 404(a) internal control report issued by management of Internap Corporation reported a material weakness in internal controls in that "the review of cash flow forecasts used in our…**going concern assessment** was not designed and maintained at an appropriate level of precision and rigor commensurate with our financial reporting requirements."

disclose going concern-related matters to reduce information asymmetry (Myers and Majluf 1984; Lang and Lundholm 2000; Healy and Palepu 2001; Shroff, Sun, White, and Zhang 2013).

Voluntary Disclosures in "Bad News" and "Good News" Settings

We next consider whether new voluntary disclosures by GCSUSPECT firms are likely to emerge in "bad news" and/or "good news" environments. Starting with "bad news," to the extent that systematic assessment yields more precise information about conditions reflecting uncertainty regarding the firm's going concern status, we may expect to see more negative disclosures after the adoption of the standard. Disclosure of "bad news" regarding the firm's going concern status can trigger a negative market reaction but could also bring benefits to the firm in the form of reduced litigation costs in the future if the firm were to fail.[13]

In the case of "good news," managers of GCSUSPECT firms are more assured that their going concern status is free from doubt due to the assessment performed, and therefore are more likely to disclose this news. Such disclosure could be viewed positively by the market, particularly for firms with the outward appearance of an uncertain GC status, but these positive claims could also expose the firm to increased litigation risk if proven to be untrue (Chen, Martin, and Wang 2013). However, we conjecture that the improved precision of managers' information resulting from a more rigorous assessment process lowers the assessed risk of future litigation from making these "good news" disclosures as they are more defensible. Thus, assuming that the cost relating to future litigation risk is sufficiently low, GCSUSPECT firms that determine that they have a clean going concern outlook can obtain net benefits from making these "good news" disclosures by separating themselves in the eyes of investors from other GCSUSPECT firms with unfavorable

[13] Voluntary disclosure theory (e.g., Grossman (1981)) argues that absent disclosure cost, sellers should fully disclose all material information to buyers to avoid or reduce potential litigation risk, even if information disclosure is not mandatory. Supporting this viewpoint, Bochkay et al. (2018) find that litigation risk is positively associated with voluntary disclosures of going concern issues using an IPO setting.

going concern conditions. Such behavior is consistent with Lev and Penman (1990)'s findings that managers of good news firms use earnings forecasts to screen themselves out from other firms.

Overall, in both "bad news" and "good news" settings, greater confidence in their internal information can incentivize managers of GCSUSPECT firms to voluntarily disclose going concern-related information. Thus, we expect that, once the ASU is adopted, both mandated and voluntary disclosures will be more likely to emerge for GCSUSPECT firms relative to other non-AGC firms.

III. DOCUMENTING MANAGEMENT GOING CONCERN DISCLOSURES

Sample Selection

Table 1 shows our sample selection procedure. ASU 2014-15 became effective for fiscal years ending after December 15, 2016. We started with all 10-K and 10-KT observations with financial statements reported under US GAAP (per Audit Analytics) for both (a) the first year of ASU adoption (i.e., the ASU year; December 16, 2016 through December 15, 2017) and (b) the year prior (December 16, 2015 and December 15, 2016). This initial step yields 13,123 firm-year observations. We apply the following restrictions: (1) retain only filings for non-financial firms that have non-missing SIC codes, (2) retain only observations with data available for estimating our primary models, (3) remove observations with a 10-K filing date outside of 360 days after the fiscal year end date, and (4) remove firms that adopted the ASU early, i.e., in the year prior to the ASU. This yields a sample of 5,430 firm-year observations comprising 2,750 firms in the year prior to the ASU and 2,680 firms in the ASU year. Our description of management disclosures in this section is based on this full sample.

Our primary analyses (discussed in section II) focus on non-AGC firms' disclosures in the ASU year. As we show in Table 1, the sample for our determinants analyses is based on 2,497

non-AGC observations in the ASU year. For the market reaction tests, we further confine to first time disclosures (i.e., non-AGC firms with no AGCs and no management going concern disclosures in the year prior to the ASU) which yields a sample of 2,202 observations.

Documenting Management Going Concern Disclosures

We start by searching our initial sample of Form 10-K filings, using Python scripting, for the term "going concern", and coded the related disclosures.[14] Although our study is focused on non-AGC firms, for completeness we coded disclosures for all firms, regardless of AGC status. We classify disclosures into mandatory and voluntary disclosures (discussed below). Table 2 Panel A provides examples of mandatory and voluntary disclosures.

Mandatory disclosures fall in two groups: (a) explicit statement that that there is substantial doubt about going concern with no suggestion of successful mitigation (MGC_EXP) and (b) statements that there was initially substantial doubt which was subsequently determined to be mitigated by management plans (MGC_MIT). MGCEXP disclosures have been mandatory even prior to the ASU when an AGC is issued. The ASU continues to mandate this disclosure without reference to the AGC but these disclosures are almost always accompanied by an AGC. In contrast, MGC_MIT are new disclosures mandated by the ASU.

Voluntary disclosures are also of two kinds (a) going concern uncertainties, with no reference to substantial doubt (MGC_VOL) and (b) explicit statement that going concern issues are not present, most even noting specifically the absence of "substantial doubt" about the firm's ability to continue as a going concern (MCLEAN_EXP). MGC_VOL disclosures have been occurring even before the ASU. MCLEAN_EXP emerged in the ASU year and are therefore the

[14] Multiple authors were involved in coding the disclosures. Where there were differences between the authors in coding, they were reconciled through discussion.

product of the ASU.[15] Thus, MGC_VOL and MCLEAN_EXP are voluntary disclosures about "bad news" and "good news," respectively.

Table 2, Panel B provides the number of observations coded into each of the above groups in the ASU year and year prior. 12.1% of firms make a directional statement on their going concern status. Specifically, across our full sample, 5.8%, 0.5%, 3.4%, and 2.4% of firms make MGC_EXP, MGC_MIT, MGC_VOL and MCLEAN_EXP disclosures, respectively. The remaining observations (87.9%) are silent on their going concern status (MNODISC).

Table 2 panel B also provides validation of our classification. We choose four empirical measures from prior literature that we expect to vary with the disclosure classifications: idiosyncratic risk (*IDIORISK*), bankruptcy risk based on Ohlson's O-Score (*BANKSCORE*), cost of equity (*COE*), and cost of debt (*COD*). A priori, we expect, if our classification is correct, the MGC_EXP (MNODISC) group to have the highest (lowest) idiosyncratic risk, bankruptcy risk, cost of equity, and cost of debt than all other groups. Indeed, descriptive statistics for these metrics in Table 2, Panel B, indicate that, MGC_EXP firms have the highest idiosyncratic risk, bankruptcy risk, cost of equity, and cost of debt among the classification groups. The means and medians of these measures monotonically decrease when moving from left to right across the MGC_EXP, MGC_MIT, MGC_VOL, MCLEAN_EXP, and MNODISC classifications.

Further, the differences in means and medians between the MGC_EXP, MGC_VOL, MCLEAN_EXP, and MNODISC classifications are statistically significant.[16] It is particularly noteworthy that MCLEAN_EXP firms are riskier, more distressed, and have higher cost of capital than MNODISC firms, supporting our expectation that explicit-clean disclosures are more likely

[15] Throughout this paper, we use MCLEAN_EXP disclosures and "explicit-clean" disclosures interchangeably. We also refer to the firms making these disclosures as "explicit-clean" firms.
[16] Due to the small number of observations in the MGC_MIT classification, we exclude this group when testing for differences in the means and medians of the validation measures across groups.

to come from GCSUSPECT firms. Collectively, these univariate analyses suggest that there are distinct differences between our classification groups, on average, and validate our classification schema.

IV. MANAGEMENT DISCLOSURES UNDER ASU 2014-15

Table 3, Panel A shows the distribution of the disclosures described above. For purposes of comparison, we present the disclosures for non-AGC and AGC firms in the ASU year, and, in the prior year. For AGC firms (columns 1-2), we find, not surprisingly, that explicit substantial doubt disclosures (MGC_EXP) dominate in both years with an increase in the proportion with MGC_EXP disclosures (87.1% to 96.2%). In contrast, non-AGC firms show more substantive changes (columns 3-4). First, in response to the standard's mandatory disclosure requirement, 23 firms report mitigated substantial doubt (MGC_MIT) in the ASU year. In contrast, one firm did so in the previous year when such disclosure was not required. Second, *voluntary* disclosures explicitly stating that there are no going concern problems (MCLEAN_EXP) increased to 4.7% in the ASU year (compared with 0.6% in the previous year).

Overall, these changes are consistent with our prediction that the standard will result in mandated disclosure as well as voluntary disclosures. Interestingly, the increase in going concern related voluntary disclosures has manifested only for "good news" disclosures (MCLEAN_EXP) as we do not observe a significant change in firm's voluntarily disclosing GC uncertainties (MGC_VOL). The ASU appears to have had a more material effect on management's cost-benefit calculus for "good news" as opposed to "bad news" GC-related voluntary disclosures. Thus, while firms were willing to be forthcoming with bad news (MGC_VOL) disclosures even prior to the ASU, not until management was more assured in their positive outlook (stemming from the going concern assessment mandated by the ASU) were they willing to be forthcoming with good news

(MCLEAN_EXP) disclosures. The emergence of these MCLEAN_EXP disclosures after the ASU-mandated management going concern assessments, costly activities to firms, suggests that that disclosures are likely to be credible signals to market participants. We explore this in our market reaction analyses below.

Management Going Concern Disclosure by GCSUSPECT and CLEAN Firms

We next study whether the management disclosures are primarily concentrated in GCSUSPECT firms consistent with our expectation discussed in Section II. An important research design choice is the empirical operationalization of the GCSUSPECT/CLEAN demarcation. We use the firm's estimated propensity to receive an AGC (*AGCPROP*) for this demarcation, expecting that a higher *AGCPROP* would make a non-AGC firm a likely GCSUSPECT firm. Accordingly, we estimate *AGCPROP* for all ASU-year observations in our sample, using determinants of AGC documented in prior literature. The full estimation approach is described in Appendix A. We define GCSUSPECT (CLEAN) firms as those with *AGCPROP* above (below) the sample median. We are purposefully liberal in our definition of GCSUSPECT to ensure that we capture firms that may have even a slight risk of going concern issues. Our intention to separate these firms for which some degree of going concern risk exists against those firms for which such risk is practically non-existent (CLEAN firms). Consistent with this notion, amongst non-AGC firms, the propensity for firms receiving an AGC (untabulated), is on average, 25-times larger for GCSUSPECT firms than it is for CLEAN firms (5.6% vs. 0.2%).

In Table 4, Panel A, we present disclosure classifications by *AGCPROP* decile for non-AGC firms. By definition, the bottom five deciles comprise CLEAN firms and the top five deciles comprise GCSUSPECT firms. Consistent with our expectation, mandatory and voluntary disclosures are concentrated in GCSUSPECT firms compared with CLEAN firms. All of the

mandatory disclosures fall in the GCSUSPECT group, and within that group in the top three *AGCPROP* deciles (columns 1-2). For voluntary disclosures again, we see a larger proportion in the GCSUSPECT group than in the CLEAN group. 80.8% (19.2%) of MGC_VOL disclosures, the negative voluntary disclosures, are made by GCSUSPECT (CLEAN) firms. The disclosures by the GCSUSPECT firms are distributed across the top five deciles although the top three deciles dominate. For the voluntary explicit-clean disclosures (columns 5-6), there is more variation. 65.0% (35.0%) of MCLEAN_EXP disclosures come from GCSUSPECT (CLEAN) firms. Interestingly, the numbers are about evenly distributed in deciles 6 to 10 in the GCSUSPECT group suggesting that these are not all firms that are in the least danger of receiving an AGC. Thus, these disclosures may have informative value to the market in assessing the future going concern status of firms. We explore this question by examining whether there is a positive market consequence of these disclosures in Section V. For firms with no disclosures (columns 7-8), we find that a higher proportion (56.3%) fall in the CLEAN group.

In Table 4, Panel B, we repeat the analysis in Panel A using a bankruptcy score measure (*BANKSCORE*) as an alternative measure to separate GCSUSPECT firms and CLEAN firms. *BANKSCORE* is beneficial as an alternative proxy to *AGCPROP* because it is constructed using a model estimated outside of our sample. The takeaways are similar to those in Panel A.

Motivating Factors for Going Concern Disclosures

We next conduct multivariate analysis to understand the determinants of management going concern disclosures by non-AGC firms. We conduct our analyses in two steps. First, we test the basic prediction in Section II that mandatory and voluntary disclosures would occur more frequently for GCSUSPECT firms than for CLEAN firms. We examine this question for (1) all disclosures (mandatory and voluntary) and (2) separately for negative and positive voluntary

disclosures after removing the small number of non-AGC firms making mandatory disclosures.[17] Second, restricting the sample to GCSUSPECT firms, we examine differences in the determinants of negative and positive voluntary disclosures.

For our first analysis, we estimate the following logit models using different disclosure classifications as dependent variables:

$$\Pr(Disclosure) = \alpha + \beta_1 GCSUSPECT + \beta_2 BIG4 + \beta_3 LITIGATION + \beta_4 SIZE + \beta_5 ANALYSTS + Industry\ Fixed\ Effects + e \quad [1]$$

Disclosure has three variants (1) *MDISC*, indicating disclosures, mandatory or voluntary, (2) *MGC_VOL*, and (3) *MCLEAN_EXP*. The base group in all models comprises MNODISC firms (i.e., firms with no disclosures on going concern status).

As determinants in our model, we start with *GCSUSPECT* (i.e., a dummy coded 1 for *AGCPROP* above the median value in our sample), because we expect GCSUSPECT firms to have a greater propensity to make both positive and negative management going concern disclosures. We include other factors that might potentially incentivize or disincentivize management disclosure. First, we expect that the client's auditor, who has historically had the sole responsibility for assessing going concern status, is likely to influence management's disclosures (or lack thereof). Higher-quality auditors have been shown to encourage their clients to provide more transparent disclosures (Legoria, Reichelt, and Soileau 2018). Using an indicator for Big Four firms (*BIG4*) as a proxy, we expect these auditors to be positively associated with management going concern disclosures. Lastly, we expect litigation risk to influence management disclosures as higher litigation risk (*LITIGATION*) is likely to increase the likelihood of negative voluntary (MGC_VOL) disclosures (Bochkay et al. 2018), but also reign in optimistic explicit-clean

[17] Recall that the number of mandatory disclosures is too few to allow for the estimation of multivariate models.

(MCLEAN_EXP) disclosures (Rogers, Van Buskirk, and Zechman 2011). We do not make a prediction for the MDISC model because it includes both of these voluntary disclosure groups.

Outside of these primary determinants, we control for the log of the number of analysts following the firm (*ANALYSTS*) as prior studies show that analysts influence the firm's disclosure policy (Graham et al. 2005; Anantharaman and Zhang 2011; Frenkel, Guttman, and Kremer 2020). We do not have a prediction for the sign of the coefficient on *ANALYSTS* because there is mixed evidence as to whether analysts incentivize management disclosure.[18] We also control for firm size, measured by the natural logarithm of total firm assets (*SIZE*) and include industry fixed effects based on the Fama-French 12 industries.

Table 5, Panel A presents descriptive statistics for the variables partitioned on management going concern disclosure groups. The monotonic decrease in the means for *GCSUSPECT* and *AGCPROP*, when moving across management going concern classifications (MGC_EXP/MGC_MIT to MGC_VOL to MCLEAN_EXP to MNODISC), is consistent with our analysis in the section above. Further, *SIZE* increases and the percentage of firms in high litigation risk industries (*LITIGATION*) decreases monotonically when moving across these classifications.

Table 5, Panel B presents estimates of model [1]. The dependent variables are *MDISC*, *MGC_VOL*, and *MCLEAN_EXP* in columns (1), (2), and (3), respectively. In column (1), we find that GCSUSPECT firms are more likely to make disclosures (mandatory and voluntary) on their going concern status. Column (2) shows that GCSUSPECT firms are more likely to provide negative voluntary disclosures (MGC_VOL) about going concern. Similarly, column (3) indicates

[18] Graham et al. (2005) suggest that firms are more likely to provide additional disclosure if they have more analysts following the firm because managers have incentives to assist analysts in forecasting earnings with additional disclosure. In contrast, Anantharaman and Zhang (2011) suggest that managers have incentives to increase disclosure when the firm has less analysts following the firm because analysts can act as substitutes for firm disclosures. Frenkel et al. (2020) analytically show that greater analyst coverage can both crowd out and crowd in corporate voluntary disclosure depending on the information environment.

that GCSUSPECT firms are also more likely to provide positive explicit-clean disclosures (MCLEAN_EXP) that they have no going concern issues. Also, the presence of a Big Four auditor increases the likelihood of going concern disclosures, and litigation risk decreases the likelihood of making positive voluntary disclosures. In all three columns, *SIZE* is negatively associated with management disclosures.

In Table 5 Panel C, we move to our second analysis. We estimate a multinomial logit model to compare the determinants of *MGC_VOL*, *MCLEAN_EXP*, and *MNODISC* in one model. We run this model for GCSUSPECT firms only as management going concern-related disclosures are almost exclusively made by GCSUSPECT firms. The two outcomes modeled are *MGC_VOL* and *MCLEAN_EXP*.[19] the base group comprises firms that make no disclosures regarding their going concern status (*MNODISC*). We use the same vector of test and control variables as used in model [1] except that we replace the dichotomous *GCSUSPECT* variable with the continuous *AGCPROP* variable since this analysis focuses only on GCSUSPECT firms. We expect a positive coefficient on *AGCPROP* for both *MGC_VOL* and *MCLEAN_EXP*, suggesting that firms with going concern uncertainty close to the AGC threshold are more likely to provide voluntary disclosures, either negative or positive. Our expectations for the control variables are similar for both *MGC_VOL* and *MCLEAN_EXP* disclosures relative to *MNODISC* disclosures, except for *LITIGATION*. As discussed above, we expect that *LITIGATION* will be positively associated with *MGC_VOL* disclosures and negatively associated with *MCLEAN_EXP* disclosures.

In Table 5, Panel C we present the results of the multinomial logit analysis. We report the coefficient estimates and significance for the *MGC_VOL* and *MCLEAN_EXP* outcomes in columns (1) and (2), respectively. Confirming the findings of our binomial logit models above,

[19] As before, we remove the small number of mandatory disclosures and limit this analysis to voluntary disclosures.

AGCPROP is positively associated with both *MGC_VOL* and *MCLEAN_EXP* disclosures relative to *MNODISC* disclosures. Further, the presence of a Big Four auditor is a significant determinant of both *MGC_VOL* and *MCLEAN_EXP* disclosures. Lastly, *LITIGATION*, consistent with expectation, is significantly and negatively associated with *MCLEAN_EXP* disclosures. Although *LITIGATION* is positively associated with *MGC_VOL* disclosures, the coefficient is not significant at conventional levels (p-value = 0.21).

In column (3) we present tests of the difference in coefficients in columns (1) and (2). Interestingly, except for *LITIGATION*, there is no difference in the coefficients predicting an MGC_VOL outcome from a MCLEAN_EXP outcome. Most notably, the propensity of the firm to receive an AGC from the auditor (*AGCPROP*) does not appear to be a significant determinant of the type of disclosure made, only *that* a disclosure is made. This suggests that firms making MGC_VOL and MCLEAN_EXP disclosures are blended in the GCSUSPECT group without a discernably different going concern status. Thus, firms making MCLEAN_EXP disclosures might be doing so to differentiate themselves from other GCSUSPECT firms (e.g., MGC_VOL).

V. DOES THE MARKET REACT TO NEW DISCLOSURES?

We next explore whether management going concern disclosures appearing after the adoption of ASU 2014-15 have information content that is valued by the market. This is of particular interest in our setting because we are focused on non-AGC firms unlike previous studies (Mayew et al. 2015; Wang 2022) and the standard has generated new explicit-clean voluntary disclosures by these firms.

To test market reactions, we restrict our sample to non-AGC observations with no disclosures regarding their going concern status by management in their previous year 10-Ks. These "first time" disclosures provide "new" information to the market regarding the firms' going

concern status. We compute size-adjusted cumulative abnormal returns (*CAR*) for a three-day window around the 10-K release date by subtracting the size-decile portfolio's daily returns from the company's raw daily returns (both obtained from CRSP) and cumulating the excess returns over the event window (Myers et al. 2018).[20]

In Table 6 Panel A, we present univariate CAR results for firms with mandatory disclosures, voluntary disclosures, and no disclosures. In columns 1 and 2, we do not detect a significant market reaction likely due to a lack of power in our small sample sizes. In column (3), firms that state explicitly that they have no going concern issues (MCLEAN_EXP), experience a significant positive market reaction, suggesting that the market values the explicit-clean disclosures made by management. The average CAR around their disclosures is 2.5% (p-value = 0.01). In contrast, the market reaction for MNODISC firms is not, on average, significant.

Next, we examine differences in the market reaction for GCSUSPECT and CLEAN firms. We expect the voluntary clean disclosures to provide value-relevant information to the market only for GCSUSPECT firms and not for CLEAN firms, for whom the revelation of a clean going concern outlook is unlikely to revise the beliefs of the market. We explore this in Table 6 Panel B. We report CAR results for firms falling into ranges CLEAN and GCSUSPECT for MCLEAN_EXP and MNODISC firms, using median *AGCPROP* and *BANKSCORE* to separate the two groups. Column (4) shows that, as expected, a positive market reaction for MCLEAN_EXP firms occurs only for GCSUSPECT firms. In comparison, there is no significant market reactions to MNODISC for either CLEAN firms (column 1) or GCSUSPECT firms (column 3).

Next, we estimate multivariate models to explore whether our univariate results are robust

[20] In untabulated analyses, we also use cumulative abnormal returns (a) based on difference between the firm's stock return and the CRSP value-weighted market return and (b) calculated based on the Fama-French three-factor model, with a 255-day estimation period ending at least 30 days prior to the release of the Form 10-K, to measure expected return. The results reported are robust to employing these CAR specifications.

to controlling for factors that we expect to contribute to management's disclosure choice and other information in Form 10-K. Table 6 Panel C reports results of regressing CAR on the two disclosure variables, *MCLEAN_EXP*, *MGC_VOL*, and the following control variables: AGC propensity (*AGCPROP*), litigation risk (*LITIGATION*), Big Four auditor (*BIG4*), firm size (*SIZE*), leverage (*LEV*), operating cash flows (*OCF*), return on assets (*ROA*), negative 10-K tone (*TONE_NEG*), positive 10-K tone (*TONE_POS*), and industry fixed effects based on the Fama-French 12 industries. The base group in this regression comprises MNODISC firms.

Table 6 Panel C, column 1 shows that the coefficient on *MCLEAN_EXP* is positive and significant while the coefficient on *MGC_VOL* is insignificant, both of which are consistent with our univariate results above. In columns 2-3 (4-5), we present the regressions for CLEAN and GCSUSPECT firms, split based on *AGCPROP* (*BANKSCORE*). The coefficient on *MCLEAN_EXP* is positive and significant for GCSUSPECT firms, as reported in columns 3 and 5. Specifically, GCSUSPECT firms with MCLEAN_EXP disclosures enjoy a 3.3% (column 3) and 4.6% (column 5) larger market reaction than GCSUSPECT firms with no going concern disclosures, suggesting a market premium for explicit-clean disclosures.[21] In contrast, there is no differential market reaction to MCLEAN_EXP disclosure for CLEAN firms (in columns 2 and 4).

Overall, we conclude that GCSUSPECT firms, which are perceived by the market as potentially subject to going concern uncertainties, use the disclosure to clarify their status as clean of going concern issues, and the market values this clarification.

[21] It is important to note that this market reaction relates to a specific group of firms unique to our study, non-AGC GCSUSPECT firms that (a) make explicit-clean statements and (b) did not provide management going concern disclosure in the previous year. Therefore, comparison with market reactions findings in previous studies on management going concern disclosures is not insightful, because these studies generally include AGC firms and, more importantly, examine negative GC disclosures. For example, using a sample comprising firms both with and without reported AGCs in the previous annual 10-K, Wang (2022) finds that explicit statements of substantial doubt by management – which are not the explicit-clean disclosures in our analysis – are associated with an approximately 2% negative abnormal return to the first 10-Q filings following the ASU.

Handling of Other Confounding Information

Any exploration of the market reaction to information included in the 10-K (in our case, MGC disclosures) has the potential to be confounded by other contemporaneous information released to the market. This additional information can appear either (a) elsewhere in the 10-K or (b) in earnings announcements made around the firm's 10-K. To address the risk that our results are driven by (a) (i.e., information in the 10-K other than the MCLEAN_EXP disclosure), we control for the tone of the 10-K text (*TONE_NEG* and *TONE_POS*) in our multivariate models above. To address the risk that our results are confounded by (b) (i.e., contemporaneous earnings announcements made by firms), we take two approaches. First, in Table 6 Panel D, we report the results of estimating our multivariate CAR models after excluding 1,057 10-Ks that are released within two days following the firm's annual earnings announcement to minimize any confounding effects of information in the earnings signal (Myers et al. 2018). This leaves us with 1,147 non-AGC observations in the ASU year, comprising 1,101 MNODISC, 43 MCLEAN_EXP, and 1 MGC_VOL firms. Our results are consistent with those reported in Table 6 Panel C. Second, in untabulated analyses, we estimate multivariate CAR models after additionally controlling for the unexpected earnings for the annual earnings announcement made for the firm. Once again, we continue to find positive market reaction (at magnitudes similar to those reported in the main analyses) to MCLEAN_EXP disclosures . These considerations and robustness analyses help us conclude that it is the MCLEAN_EXP disclosures rather than other information released by the firm that drives the market reaction we observe.

Robustness to Alternative Thresholds for GCSUSPECT Firms

In the main analysis, we use the median AGCPROP or BANKSCORE to classify GCSUSPECT and CLEAN firms. Our intention to choose the median threshold is to identify any

firms with even a minimal risk of going concern issues. However, to examine the sensitivity of our results to using a more stringent threshold, we run separate models in which GCSUSPECT firms are defined as those in the top quartile of *AGCPROP* and *BANKSCORE*. In all cases, our results are consistent (untabulated) with those reported in our main analyses. Specifically, MCLEAN_EXP firms exhibit a significant positive market reaction for GCSUSPECT firms, but not CLEAN firms. These results also hold when using any other percentile threshold between the 50th and 78th (79th) percentile for *AGCPROP* (*BANKSCORE*). However, for thresholds above these percentiles, we no longer detect a significant positive market reaction for MCLEAN_EXP disclosures likely due to a loss of power in our models (e.g., our sample size for GCSUSPECT firms drops to less than 260 total firms).

VI. IS THE MARKET REACTION JUSTIFIED?

In this section, we explore further why the market reacts to these explicit-clean disclosures, and whether this reaction is justified. Since not all GCSUSPECT firms make these disclosures, we conjecture that the disclosing firms use them as signals to separate themselves from other GCSUSPECT firms. However, in order to be credible, a signal must have cost attached to it (Spence 1973; Hughes 1986). In this section, we examine costs that firms making such disclosures are likely to incur, and whether the signal is credible based on subsequent bankruptcies and delistings.

Signal Costs Arising from the Auditor's Role

For GCSUSPECT firms, there are two primary costs that can prevent firms from making positive explicit-clean disclosures. First, as documented in Section IV, litigation risk reduces the likelihood of MCLEAN_EXP disclosures suggesting that litigation costs accrue to firms making MCLEAN_EXP disclosures. Second, the auditors, who historically have been responsible for

opining on their clients' going concern presumption, may take steps to more intensely validate the presumption to be true for those making an explicit-clean disclosure. This is particularly true since a majority of MCLEAN_EXP disclosures appear in the footnotes (114 of 117 cases in the ASU year as shown in Table 3 Panel B), for which auditors provide greater assurance than other areas of the 10-K (e.g., MD&A).

We examine added costs related to the auditor using audit fees and audit lag as proxies for auditor effort. We regress audit fees and audit lag as a function of management disclosure classification (*MCLEAN_EXP* and *MGC_VOL*) and control variables comprising firm and auditor characteristics based on prior research (e.g., Francis, Reichelt, and Wang 2005; Hogan and Wilkins 2008; Causholli, Martinis, Hay, and Knechel 2010; Knechel and Sharma 2012). Firm characteristics include firm size (*SIZE*, measured by the log of total assets); leverage (*LEV*, measured by the ratio of total liabilities to total assets); return on assets (*ROA*); book to market value of equity (*BTM*); ratios of inventory and receivables to total assets (*INVT* and *RECV*), the log of the number of firm segments (SEG); the ratio of foreign income to sales (*FOREIGN*); and indicator variables representing the existence of extraordinary items or discontinued operations (*EXTRAORD*), the existence of at least one internal control material weakness (*ICMW*), and whether the client has a fiscal year ending in December during the traditional audit busy season (*BUSY*). In audit lag models, we also control for filer status, accelerated filers (*ACCEL*) and large accelerated filers (*LGACCEL*) since these filers are subject to different filing deadlines. We also include several auditor characteristics: indicators for a Big 4 auditor (*BIG4*) and an industry specialist auditor (*AUDSPEC*), and audit office size (*OFFICESIZE*) (e.g., Francis and Yu 2009; Choi, Kim, Kim, and Zang 2010). Lastly, we include industry fixed effects based on the Fama-French 12 industries.

In Table 7, we present the results of estimating the audit fee and audit lag models for GCSUSPECT firms using, as before, *AGCPROP* and *BANKSCORE* to classify GCSUSPECT firms. Columns 1-2 (3-4) report the results of the audit fee (audit lag) analyses. For GCSUSPECT firms, MCLEAN_EXP disclosures are positively associated with both audit fee and audit lag, suggesting that auditors put forth more effort for these clients relative to MNODISC firms. This evidence is consistent with increased auditor scrutiny being a cost incurred by explicit-clean firms. In untabulated analyses, we estimate the audit fee and audit lag models for CLEAN firms and find that *MCLEAN_EXP* is not significant.

Signal Credibility

Next, to explore whether the positive market reaction to MCLEAN_EXP disclosures is justified, we examine whether these disclosures are credible in accurately projecting the firm's future sustainability as a going concern. Specifically, we explore whether different going concern disclosures in the ASU year accurately predict future firm failures. While the number of firms in these analyses is small, we believe that they provide some corroborative evidence.

Following prior work (e.g., Myers, Schmidt, and Wilkins 2014; Mayew et al. 2015; Tan, Ramalingegowda, and Yu 2022), we identify future failures as bankruptcies, liquidations, or delistings within one year from the date of filing of the financial statements. We identify these events from two sources: (1) Audit Analytics Bankruptcies file and (2) the delisting code (DLSTCD) field in CRSP's Stock Header file. Table 8 shows the future failures by disclosure type. Across all disclosure classifications, 15 of the 2,497 ASU-year non-AGC firms fail in the year following the filing of their annual financial statements. The numbers for individual classifications, although small, indicate a tentative pattern. 3 of 99 firms disclosing going concern issues (MGC_EXP, MGC_MIT or MGC_VOL) and 12 of 2,281 firms making no management going

concern disclosure (MNODISC) fail in the year following the release of the 10-K. By contrast, none of the 117 firms making an MCLEAN_EXP disclosure failed over the same time horizon. This result suggests that, at least in the first year of the standard, management's explicit-clean statements regarding their ability to continue as a going concern were credible justifying the positive market reaction to them.

VII. CONCLUSION

The FASB's ASU 2014-15 requires management of all firms to assess their firm's going concern status and provide disclosures in situations where substantial doubt was mitigated by management's plans. The focus of the FASB in issuing the ASU is on firms with latent going concern doubt (which we label GCSUSPECT firms) that is not as extreme as for firms that receive a going concern opinion from their auditors (AGC). Absent additional disclosure from management, these firms are characterized by a high degree of information asymmetry about going concern status relative to other firms. Thus, going concern-related disclosures from these non-AGC firms can be informative to investors as a means to reduce information asymmetry.

Using hand-collected data for a sample of public companies, we examine voluntary and mandatory disclosures emerging in the first year of implementation of the ASU, as well as the determinants and market implication of such disclosures. The standard has resulted in new mandatory disclosures surrounding mitigating factors and, surprisingly, explicit voluntary disclosures asserting the absence of going concern issues. More importantly, these voluntary explicit-clean disclosures occur mostly among GCSUSPECT firms and elicit a significant positive market reaction. Thus, the market views these explicit-clean GCSUSPECT firms as separating themselves from other GCSUSPECT firms. These disclosures are also costly as they are less likely to appear for firms in high litigation risk industries and induce greater auditor effort. Lastly, we

show that none of the explicit-clean firms in our sample fail within the going concern assessment period validating the credibility of the disclosures.

Collectively, these findings add to the body of literature studying auditor and management assessments of going concern as well as the impact of FASB standards (e.g., Khan et al. 2017; Cheng et al. 2018; Jiang et al. 2018; Campbell et al. 2021). Our contribution is novel as we apply a detailed lens to both the determinants and market consequences of disclosures that emerge after a standard mandating significant addition to management's responsibility for conducting going concern assessments.

REFERENCES

Anantharaman, D., and Y. Zhang. 2011. Cover me: Managers' responses to changes in analyst coverage in the post-Regulation FD period. *The Accounting Review* 86 (6): 1851–1885.

Behn, B., S. Kaplan, and K. Krumwiede. 2001. Further evidence on the auditor's going-concern report: the influence of management plans. *Auditing: A Journal of Practice & Theory* 20 (1): 13–28.

Beyer, A., D., A. Cohen, T. Z. Lys, and B. R. Walther. 2010. The financial reporting environment: Review of the recent literature. *Journal of Accounting and Economics* 50 (2 –3): 296–343.

Bischof, J., and H. Daske. 2013. Mandatory disclosure, voluntary disclosure, and stock market liquidity: Evidence from the EU bank stress tests. *Journal of Accounting Research* 51 (5): 997–1029.

Bochkay, K., R. Chychyla, S. Sankaraguruswamy, and M. Willenborg. 2018. Management disclosures of going concern uncertainties: The case of initial public offerings. *The Accounting Review* 93 (6): 29–59.

Campbell, J. L., U. Khan, and S. Pierce. 2021. The effect of mandatory disclosure on market inefficiencies: Evidence from FASB Statement No. 161. *The Accounting Review* 96 (2): 153–176.

Carcello, J. V., D. R. Hermanson, and H. F. Huss. 1995. Temporal changes in bankruptcy-related reporting. *Auditing: A Journal of Practice & Theory* 14 (2): 133–143.

Causholli, M., M. D. Martinis, D. Hay, and W. R. Knechel. 2010. Audit markets, fees and production: Towards an integrated view of empirical audit research. *Journal of Accounting Literature* 29: 167-215.

Chen, C., X. Martin, and X. Wang. 2013. Insider trading, litigation concerns, and auditor going-concern opinions. *The Accounting Review* 88 (2): 365–393.

Cheng, Q., Y. J. Cho, and H. Yang. 2018. Financial reporting changes and the internal information environment: Evidence from SFAS 142. *Review of Accounting Studies* 23 (1): 347–383.

Choi, J. H., C. Kim, J.B., Kim, and Y. Zang. 2010. Audit office size, audit quality, and audit pricing. *Auditing: A Journal of Practice & Theory* 29 (1): 73–97.

DeFond, M. L., K. Raghunandan, and K. R. Subramanyam. 2002. Do non–audit service fees impair auditor independence? Evidence from going concern audit opinions. *Journal of Accounting Research* 40 (4): 1247–1274.

Dopuch, N., R. W. Holthausen, and R. W. Leftwich. 1987. Predicting audit qualifications with financial and market variables. *The Accounting Review* 62 (3): 431–454.

Dye, R. A. 1985. Disclosure of Nonproprietary Information. *Journal of Accounting Research* 23 (1): 123–145.

Easton, P D. 2004. PE ratios, PEG ratios, and estimating the implied expected rate of return on equity capital. *The Accounting Review* 79 (1): 73–95.

Einhorn, E. 2005. The nature of the interaction between mandatory and voluntary disclosures. *Journal of Accounting Research* 43 (4): 593–621.

Einhorn, E., and A. Ziv. 2008. Intertemporal dynamics of corporate voluntary disclosures. *Journal of Accounting Research* 46 (3): 567–589.

EY. 2017. Technical Line, FASB — Final guidance: How to Apply the FASB's Guidance on Management's Going Concern Evaluation. *EY Accounting Link* (2017-01, January 12).

FASB. 2014. Disclosure of Uncertainties about an Entity's Ability to Continue as a Going Concern (August). FASB, Norwalk, CT. http://www.fasb.org/resources/ccurl/599/128/ASU%202014-15.pdf.
Frenkel, S., I. Guttman, and I. Kremer. 2020. The effect of exogenous information on voluntary disclosure and market quality. *Journal of Financial Economics* 138 (1): 176–192.
Francis, J. R., and J. Krishnan. 1999. Accounting accruals and auditor reporting conservatism. *Contemporary Accounting Research* 16 (1): 135–165.
Francis, J., D. Philbrick, and K. Schipper. 1994. Shareholder litigation and corporate disclosures. *Journal of Accounting Research* 32 (2): 137–164.
Francis, J. R., K. Reichelt, and D. Wang. 2005. The pricing of national and city-specific reputations for industry expertise in the US audit market. *The Accounting Review* 80 (1): 113–136.
Francis, J. R., and M. D. Yu. 2009. Big 4 office size and audit quality. *The Accounting Review* 84 (5): 1521–1552.
Graham, J. R., C. R. Harvey, and S. Rajgopal. 2005. The economic implications of corporate financial reporting. *Journal of Accounting and Economics* 40 (1–3): 3–73.
Grossman, S. J. 1981. The informational role of warranties and private disclosure about product quality. *The Journal of Law and Economics* 24 (3): 461–483.
Healy, P. M., and K. G. Palepu. 2001. Information asymmetry, corporate disclosure, and the capital markets: A review of the empirical disclosure literature. *Journal of Accounting and Economics* 31 (1–3): 405–440.
Hogan, C. E., and M. S. Wilkins. 2008. Evidence on the audit risk model: do auditors increase audit fees in the presence of internal control deficiencies. *Contemporary Accounting Research* 25 (1): 219–242.
Hughes, P. J. 1986. Signalling by direct disclosure under asymmetric information. *Journal of Accounting and Economics* 8 (2): 119–142.
Jiang, J., I. Y. Wang, and D. D. Wangerin. 2018. How does the FASB make decisions? A descriptive study of agenda setting and the role of individual board members. *Accounting, Organizations and Society* 71 (November): 30–46.
Jung, W-O., and Y. K. Kwon. 1988. Disclosure When the Market Is Unsure of Information Endowment of Managers. *Journal of Accounting Research* 26 (1): 146–153.
Kausar, A., N. Shroff, and H. White. 2016. Real effects of the audit choice. *Journal of Accounting and Economics* 62 (1): 157–181.
Kim, O., and R. E. Verrecchia. 1994. Market liquidity and volume around earnings announcements. *Journal of Accounting and Economics* 17 (1-2): 41–67.
Khan, U., B. Li, S. Rajgopal, and M. Venkatachalam. 2017. Do the FASB's standards add shareholder value? *The Accounting Review* 93 (2): 209–247.
Knechel, W. R., and Sharma, D. S. 2012. Auditor-provided nonaudit services and audit effectiveness and efficiency: Evidence from pre-and post-SOX audit report lags. *Auditing: A Journal of Practice & Theory* 31 (4): 85-114.
Lang, M. H., and R. J. Lundholm. 2000. Voluntary disclosure and equity offerings: Reducing information asymmetry or hyping the stock? *Contemporary Accounting Research* 17 (4): 623–662.
Legoria, J., K. J. Reichelt, and J. S. Soileau. 2018. Auditors and disclosure quality: The case of major customer disclosures. *Auditing: A Journal of Practice & Theory* 37 (3): 163–189.

Lev, B., and S. H. Penman. 1990. Voluntary forecast disclosure, nondisclosure, and stock prices. *Journal of Accounting Research* 28 (1): 49–76.
Li, X., and H. I. Yang. 2016. Mandatory financial reporting and voluntary disclosure: the effect of mandatory IFRS adoption on management forecasts. *The Accounting Review* 91 (3): 933–953.
Loughran, T., and B. McDonald. 2011. When is a liability not a liability? Textual analysis, dictionaries, and 10-Ks. *The Journal of Finance* 66 (1): 35–65.
Mayew, W. J., M. Sethuraman, and M. Venkatachalam. 2015. MD&A disclosure and the firm's ability to continue as a going concern. *The Accounting Review* 90 (4): 1621–1651.
Myers, L. A., J. E. Shipman, Q. T. Swanquist, and R. L. Whited. 2018. Measuring the market response to going concern modifications: The importance of disclosure timing. *Review of Accounting Studies* 23 (4): 1512–1542.
Myers, L. A., J. Schmidt, and M. Wilkins. 2014. An investigation of recent changes in going concern reporting decisions among Big N and non-Big N auditors. *Review of Quantitative Finance and Accounting* 43 (1): 155–172.
Myers, S. C., and N. S. Majluf. 1984. Corporate financing and investment decisions when firms have information that investors do not have. *Journal of Financial Economics* 13 (2): 187–221.
Ogneva, M., and K. R. Subramanyam. 2007. Does the stock market underreact to going concern opinions? Evidence from the US and Australia. *Journal of Accounting and Economics* 43 (2-3): 439–452.
Ohlson, J. A. 1980. Financial ratios and the probabilistic prediction of bankruptcy. *Journal of Accounting Research* 18 (1): 109–-131.
PCAOB. 2017. *Consideration of an Entity's Ability to Continue as a Going Concern.* https://pcaobus.org/Standards/Auditing/Pages/AS2415.aspx.
PwC. 2016. FASB Defines Management's Going Concern Responsibilities*. Industry Alert* (2016-04).
Rogers, J. L., A. Van Buskirk, and S. L. C. Zechman. 2011. Disclosure tone and shareholder litigation. *The Accounting Review* 86 (6): 2155–2183.
Shroff, N., A. X. Sun, H. D. White, and W. Zhang. 2013. Voluntary disclosure and information asymmetry: Evidence from the 2005 Securities Offering Reform. *Journal of Accounting Research* 51 (5): 1299–1345.
Spence, M. 1973. Job market signaling. *The Quarterly Journal of Economics* 87 (3): 355–374.
Steele, A. 2017. Sears Stock Crumbles after Going-Concern Warning. *WSJ Online* (March 2022). https://www.wsj.com/articles/sears-stock-stumbles-after-going-concern-warning-1490191329.
Tan, L., S. Ramalingegowda, and Y. Yu. 2022. Third-party consequences of changes in managerial fiduciary duties: The case of auditors' going concern opinions. *Management Science* 68 (2): 1556–1572.
Wang, J. 2022. Management going concern disclosure, mitigation plan, and failure prediction-implications from ASU 2014-15. *The Accounting Review* 97 (4): 417–446.
Willenborg, M., and J. C. McKeown. 2000. Going-concern initial public offerings. *Journal of Accounting and Economics* 30 (3): 279–313.

FIGURE 1
Going Concern Reporting Continuum

GCSTATUS Continuum

Clearly Healthy (Clean) Firms		Clear Substantial Doubt about GC
CLEAN Firms	**GCSUSPECT Firms**	**AGC Firms**
Firms with No GC Uncertainty and No AGC	Firms with Some GC Uncertainty but No AGC (FASB Focus in ASU 2014-15)	Firms with Considerable GC Uncertainty and an AGC

FIGURE 2
Overview of Management Reporting under ASU 2014-15

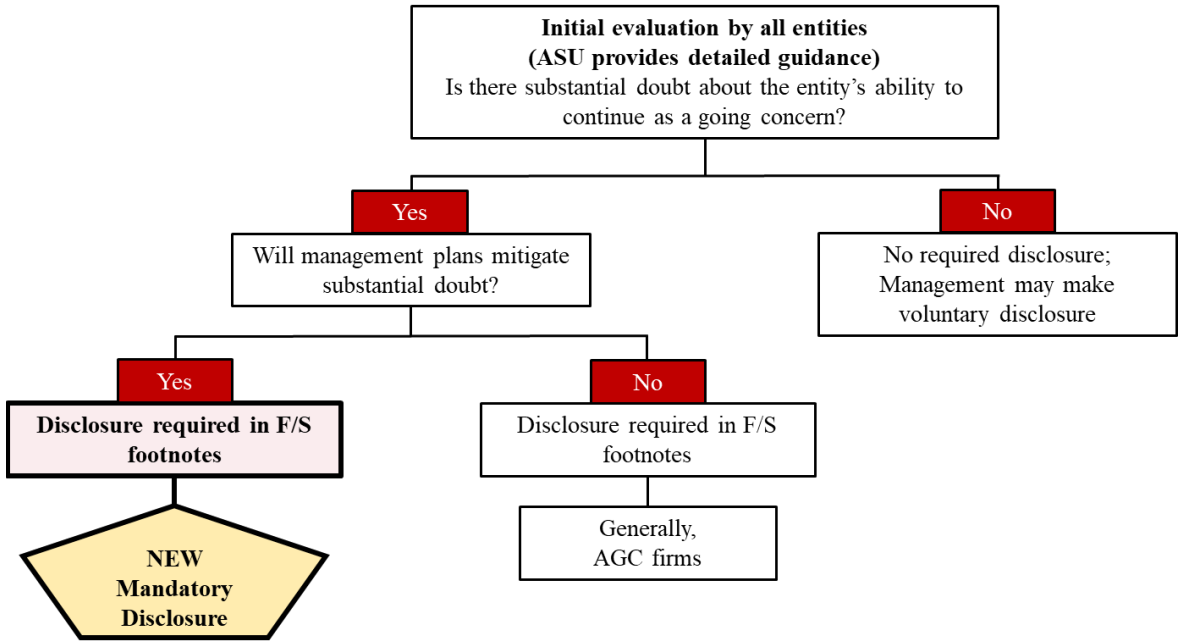

TABLE 1
Sample Selection

	N
All 10-K and 10-KT filings for (a) the ASU Year and (b) the year prior (Audit Analytics)[a]	13,123
Less:	
Firm-year observations for financial firms or firms with missing SIC codes	(3,436)
Firm-year observations without available Audit Analytics, Compustat, and CRSP data to construct the AGC models and propensity measure	(4,213)
Firm-year observations with a 10-K filing date more than 360 days after the fiscal year end date	(8)
Early Adopters (adopting in the year prior to the ASU)	(36)
Sample used to document pattern of disclosures (Tables 2 and 3)	***5,430***
Comprising:	
Year prior to the ASU	2,750
ASU year	2,680
Sample for Main Tests (ASU Year Non-AGC Firms)	
Determinants of ASU Year Disclosure Analyses:	
ASU year observations from above	2,680
Less: AGC firms	(183)
Final Sample for Tables 4 and 5	***2,497***
Market Reaction Analyses:	
Sample used above for determinants analysis	2,497
Retain only firms with no AGC and no management going concern disclosures in the prior year	(295)
Final Sample for Table 6	***2,202***

[a] Year prior to ASU year comprises year ends between November 1, 2015 and December 15, 2016; ASU year comprises year ends between December 16, 2016 and January 31, 2017. In cases where there are multiple observations per firm in a given year (the ASU year or the year prior), we keep the observation closest to the date of ASU adoption. Further, for firms in both the ASU year and year prior, we remove significant changes in fiscal year end (those less than 350 or more than 380 days apart).

TABLE 2
Management Going Concern Disclosures Classification and Validation

Panel A: Management Going Concern Disclosures Classification

Classification	Description	Example
Mandatory Disclosures		
MGC_EXP (Unmitigated substantial doubt)	10-K explicitly discusses going concern issues using both terms "substantial doubt" ("doubt" in a few cases) and "going concern"	These matters, among others, raise substantial doubt about the Company's ability to continue as a going concern.
MGC_MIT (Mitigated substantial doubt)	10-K makes statement(s) regarding going concern issues, but then states that such issues are alleviated	Inability to refinance these debt obligations when due could raise substantial doubt about our ability to continue as a going concern. … We believe that the actions discussed above mitigate the substantial doubt raised by our recent operating losses and refinancing needs and satisfy our estimated liquidity needs 12 months from the issuance of the financial statements.
Voluntary Disclosures		
MGC_VOL (Negative disclosures)	10-K makes mild reference to going concern problems using modal or qualifying words (e.g., would or could)	There can be no assurance that the Company will be successful in achieving its long-term plans as set forth above, or that such plans, if consummated, will enable the Company to obtain profitable operations or continue in the long-term as a going concern.
MCLEAN_EXP (Explicit-Clean disclosures)	10-K makes explicit statement(s) that going concern problems are not present	The Company did not identify any conditions that raised substantial doubt about its ability to continue as a going concern as of the date of issuance of its consolidated financial statements. The Company believes that it has the ability to continue as a going concern for at least 12 months from the date the Company's financial statements are issued.

Panel B: Frequency of Management Going Concern Disclosure and Validation of Coding Scheme

		MDISC				MNODISC	Differences Across Disclosure Groups[b]		
		Mandatory Disclosures		Voluntary Disclosures		No Disclosure			
		MGC_EXP	MGC_MIT	MGC_VOL	MCLEAN_EXP	MNODISC	MGC_EXP vs. MGC_VOL	MGC_VOL vs. MCLEAN_EXP	MCLEAN_EXP vs. MNODISC
							(1) – (3)	(3) – (4)	(4) – (5)
		(1)	(2)	(3)	(4)	(5)	t-Statistic (Rank Sum)	t-Statistic (Rank Sum)	t-Statistic (Rank Sum)
Frequency Counts									
N		**317**	**25**	**184**	**132**	**4,772**			
%		**(5.8%)**	**(0.5%)**	**(3.4%)**	**(2.4%)**	**(87.9%)**			
Validation[a]									
IDIORISK	*Mean*	0.06	0.05	0.05	0.04	0.03	5.33***	4.49***	7.83***
	Median	(0.05)	(0.05)	(0.04)	(0.03)	(0.02)	(5.71)***	(5.47)***	(6.60)***
	N	[317]	[25]	[184]	[132]	[4,772]			
BANKSCORE	Mean	6.98	3.80	3.41	1.10	-0.93	7.51***	4.36***	7.61***
	Median	(5.61)	(3.65)	(2.77)	(0.41)	-(1.22)	(7.47)***	(5.08)***	(5.72)***
	N	[310]	[25]	[180]	[130]	[4,644]			
COE	Mean	0.44	0.30	0.24	0.15	0.12	3.87***	2.68***	2.02**
	Median	(0.34)	(0.19)	(0.16)	(0.11)	(0.08)	(4.88)***	(3.36)***	(2.87)***
	N	[82]	[10]	[66]	[58]	[2,583]			
COD	Mean	0.16	0.12	0.12	0.09	0.07	2.45**	1.92*	2.84***
	Median	(0.12)	(0.09)	(0.08)	(0.06)	(0.05)	(3.19)***	(3.15)***	(2.65)***
	N	[215]	[17]	[112]	[83]	[3,527]			

[a] The difference in sample sizes across variables used in validation is caused by additional data requirements necessary to construct each of the measures.

[b] The "t-Statistic (Rank Sum)" columns present the associated statistics for differences in means (based on a t-test) and medians (based on a Wilcoxon Rank Sum test) between the two disclosure groups compared in each of these columns.

TABLE 3
Management Going Concern Disclosures

Type of Management Disclosure	AGC firms		Non-AGC firms	
	Year Prior to the ASU	ASU Year	Year Prior to the ASU	ASU Year
	(1)	(2)	(3)	(4)
	N (%)	N (%)	N (%)	N (%)
Disclosures Mandated by FASB ASU 2014-15 when Substantial Doubt Present				
MGC_EXP	**135** **(87.10)**	**176** **(96.17)**	3 (0.12)	3 (0.12)
MGC_MIT	1 (0.65)	0 (0.00)	**1** **(0.04)**	**23** **(0.92)**
Voluntary Disclosures regarding Going Concern Status				
MGC_VOL	17 (10.97)	7 (3.83)	87 (3.35)	73 (2.92)
MCLEAN_EXP	0 (0.00)	0 (0.00)	**15** **(0.58)**	**117** **(4.69)**
No Disclosure regarding Going Concern Status (Implied Clean of Going Concern Issues)				
MNODISC	2 (1.29)	0 (0.00)	2,489 (95.92)	2,281 (91.35)
Total	***155*** ***(100.00)***	***183*** ***(100.00)***	***2,595*** ***(100.00)***	***2,497*** ***(100.00)***

TABLE 4
Non-AGC Management Going Concern Disclosures by GCSTATUS

Panel A: Management Going Concern Disclosures in the ASU Year, by AGCPROP Decile

		MDISC						MNODISC	
		Mandatory Disclosures		Voluntary Disclosures				No Disclosure	
		MGC_EXP / MGC_MIT		MGC_VOL		MCLEAN_EXP		MNODISC	
AGCPROP Decile		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
		N	%	N	%	N	%	N	%
10	GCSUSPECT Firms	7	26.9%	20	27.4%	14	12.0%	68	3.0%
9		15	57.7%	14	19.2%	13	11.1%	211	9.3%
8		4	15.4%	14	19.2%	19	16.2%	224	9.8%
7		0	0.0%	5	6.8%	17	14.5%	244	10.7%
6		0	0.0%	6	8.2%	13	11.1%	249	10.9%
GCSUSPECT Total		**26**	**100.0%**	**59**	**80.8%**	**76**	**65.0%**	**996**	**43.7%**
5	CLEAN Firms	0	0.0%	5	6.8%	12	10.3%	251	11.0%
4		0	0.0%	5	6.8%	11	9.4%	252	11.0%
3		0	0.0%	1	1.4%	6	5.1%	261	11.4%
2		0	0.0%	1	1.4%	8	6.8%	259	11.4%
1		0	0.0%	2	2.7%	4	3.4%	262	11.5%
CLEAN Total		**0**	**0.0%**	**14**	**19.2%**	**41**	**35.0%**	**1,285**	**56.3%**
Non-AGC Firms Total		***26***	***100.0%***	***73***	***100.0%***	***117***	***100.0%***	***2,281***	***100.0%***

Panel B: Management Going Concern Disclosures in the ASU Year, by BANKSCORE Decile

		MDISC						MNODISC	
		Mandatory Disclosures		Voluntary Disclosures				No Disclosure	
		MGC_EXP / MGC_MIT		MGC_VOL		MCLEAN_EXP		MNODISC	
BANKSCORE Decile		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
		N	%	N	%	N	%	N	%
10	GCSUSPECT Firms	9	34.6%	20	27.8%	15	12.9%	97	4.4%
9		11	42.3%	19	26.4%	22	19.0%	166	7.5%
8		5	19.2%	7	9.7%	19	16.4%	226	10.2%
7		1	3.8%	8	11.1%	12	10.3%	237	10.7%
6		0	0.0%	5	6.9%	5	4.3%	252	11.3%
GCSUSPECT Total		**26**	**100.0%**	**59**	**81.9%**	**73**	**62.9%**	**978**	**44.0%**
5	CLEAN Firms	0	0.0%	2	2.8%	6	5.2%	251	11.3%
4		0	0.0%	7	9.7%	8	6.9%	245	11.0%
3		0	0.0%	3	4.2%	9	7.8%	248	11.2%
2		0	0.0%	1	1.4%	9	7.8%	249	11.2%
1		0	0.0%	0	0.0%	11	9.5%	251	11.3%
CLEAN Total		**0**	**0.0%**	**13**	**18.1%**	**43**	**37.1%**	**1,244**	**56.0%**
Non-AGC Firms Total		***26***	***100.0%***	***72***	***100.0%***	***116***	***100.0%***	***2,222***	***100.0%***

TABLE 5
Determinants of Management Going Concern Disclosures for Non-AGC Firms

Panel A: Descriptive Statistics for Multivariate Models

	All Observations					Disclosures			No Disclosure	Differences Between Groups		
						Mandatory	Voluntary					
						MGC_EXP / MGC_MIT	MGC_VOL	MCLEAN_ EXP	MNODISC	MGC_EXP / MGC_MIT vs. MGC_VOL	MGC_VOL vs. MCLEAN_EXP	MCLEAN_EXP vs. No disclosures
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(6) – (7)	(7) – (8)	(8) – (9)
	Mean	SD	Q1	Med.	Q3	Mean	Mean	Mean	Mean			
GCSUSPECT	0.463	0.499	0.000	0.000	1.000	1.000	0.808	0.650	0.437	0.192	0.158**	0.213***
AGCPROP	0.027	0.092	0.002	0.005	0.014	0.152	0.131	0.069	0.020	0.021	0.062**	0.049***
BIG4	0.724	0.447	0.000	1.000	1.000	0.308	0.630	0.786	0.728	-0.322	-0.156**	0.058**
LITIGATION	0.369	0.483	0.000	0.000	1.000	0.654	0.562	0.419	0.357	0.092	0.143*	0.062*
ANALYSTS	1.728	0.979	1.099	1.792	2.485	0.990	1.257	1.612	1.757	-0.267	-0.355***	-0.145**
SIZE	6.584	2.046	5.118	6.588	7.938	4.015	4.708	5.740	6.716	-0.693*	-1.032***	-0.976***
N	2,497					26	73	117	2,281			

Panel B: Binary Logit Regressions for Management Disclosures

Base Group: MNODISC	All Disclosures		Voluntary vs. No Disclosures			
	MDISC (vs. MNODISC)		MGC_VOL (vs. MNODISC)		MCLEAN_EXP (vs MNODISC)	
		(1)		(2)		(3)
	Pred.	Coefficient (t-Statistic)	Pred.	Coefficient (t-Statistic)	Pred.	Coefficient (t-Statistic)
GCSUSPECT	+	0.629*** (3.40)	+	0.630* (1.90)	+	0.478** (2.01)
BIG4	+	0.814*** (3.91)	+	0.759** (2.02)	+	1.190*** (4.04)
LITIGATION	+/–	-0.070 (-0.33)	+	0.436 (1.25)	–	-0.598** (-2.25)
ANALYSTS	+/–	0.146 (1.18)	+/–	0.089 (0.43)	+/–	0.125 (0.79)
SIZE	–	-0.470*** (-6.61)	–	-0.606*** (-4.79)	–	-0.348*** (-4.61)
N		2,497		2,354		2,398
Pseudo R^2		0.127		0.167		0.095
Area under ROC Curve		0.766		0.822		0.744
Fixed Effects		Industry		Industry		Industry

Panel C: Multinomial Logit Regression for Voluntary MGC Disclosures (GCSUSPECT Firms Only)

Base Group: MNODISC	**MGC_VOL**		**MCLEAN_EXP**		
	Pred.	**(1) Coefficient (t-Statistic)**	**Pred.**	**(2) Coefficient (t-Statistic)**	**(3) Difference in Coefficients (p-value)**
AGCPROP	+	2.370*** (3.27)	+	2.277*** (3.05)	0.093 (0.91)
BIG4	+	0.762* (1.87)	+	1.106*** (3.23)	-0.334 (0.49)
LITIGATION	+	0.518 (1.26)	−	-0.610** (-1.98)	1.128** (0.02)
ANALYSTS	+/−	0.119 (0.49)	+/−	0.165 (0.85)	-0.046 (0.88)
SIZE	−	-0.537*** (-3.56)	−	-0.269*** (-2.66)	-0.268 (0.12)
N	1,131				
Pseudo R^2	0.122				
Fixed Effects	Industry				

Notes: Continuous variables are winsorized at the 1% and 99% levels; Industry fixed effects are based on the Fama-French 12-industry classification; t-statistics calculated using robust standard errors are reported in parentheses; Significance levels are based on two-tailed tests: *** p<0.01, ** p<0.05, * p<0.1; All variables are defined in Appendix B.

TABLE 6
Market Reaction to Management Going Concern Disclosure

Panel A: Univariate CAR for Non-AGC Firms with No Management Going Concern Disclosures in the Year Prior to the ASU[a, b]

	Mandatory Disclosures	Voluntary Disclosures		No Disclosures
	MGC_EXP / MGC_MIT (1)	MGC_VOL (2)	MCLEAN_EXP (3)	MNODISC (4)
	Mean (t-Statistic)	Mean (t-Statistic)	Mean (t-Statistic)	Mean (t-Statistic)
CAR	-0.012 (-0.49)	-0.008 (-0.48)	0.025** (2.54)	0.001 (0.82)
N	17	5	87	2,110

Panel B: Univariate CAR for Non-AGC Firms with No Management Going Concern Disclosures in the Year Prior to the ASU, by GCSTATUS

	MNODISC (1)	MCLEAN_EXP (2)	MNODISC (3)	MCLEAN_EXP (4)
	Mean (t-Statistic)	Mean (t-Statistic)	Mean (t-Statistic)	Mean (t-Statistic)
GCSTATUS using AGCPROP				
	CLEAN Firms		GCSUSPECT Firms	
CAR	0.000 (0.09)	0.003 (0.37)	0.003 (0.96)	0.039** (2.57)
N	1,227	33	883	54
GCSTATUS using BANKSCORE				
	CLEAN Firms		GCSUSPECT Firms	
CAR	0.000 (-0.24)	-0.013 (-1.21)	0.003 (1.14)	0.051*** (3.52)
N	1,174	35	883	51

Panel C: Multivariate CAR Models by GCSTATUS with No Management Going Concern Disclosures in the Year Prior to the ASU

Sample:	**Full**	**GCSTATUS using AGCPROP**		**GCSTATUS using BANKSCORE**	
		CLEAN Firms	**GCSUSPECT Firms**	**CLEAN Firms**	**GCSUSPECT Firms**
Dependent Var.:	**CAR**	**CAR**	**CAR**	**CAR**	**CAR**
	(1) Coefficient (t-Statistic)	**(2) Coefficient (t-Statistic)**	**(3) Coefficient (t-Statistic)**	**(4) Coefficient (t-Statistic)**	**(5) Coefficient (t-Statistic)**
MCLEAN_EXP	0.021**	-0.000	0.033**	-0.013	0.046***
	(2.07)	(-0.00)	(2.12)	(-1.21)	(3.12)
MGC_VOL	-0.018	-0.024***	-0.019	--[c]	-0.017
	(-1.35)	(-3.60)	(-0.99)		(-1.33)
AGCPROP	-0.091**	-1.854	-0.107**	-0.215	-0.074
	(-2.21)	(-1.32)	(-2.13)	(-0.64)	(-1.41)
LITIGATION	-0.002	-0.001	-0.000	-0.002	-0.003
	(-0.52)	(-0.33)	(-0.04)	(-0.50)	(-0.38)
BIG4	0.003	0.010	-0.002	0.008	-0.002
	(0.77)	(1.63)	(-0.25)	(1.39)	(-0.21)
SIZE	-0.001	-0.003***	0.002	-0.003**	0.001
	(-1.07)	(-2.63)	(0.95)	(-1.97)	(0.32)
LEV	0.009	0.011	0.006	0.016	-0.000
	(1.38)	(1.42)	(0.61)	(1.38)	(-0.03)
ROA	-0.004	0.054*	-0.017	0.023	-0.010
	(-0.33)	(1.77)	(-1.40)	(0.87)	(-0.66)
OCF	-0.015	-0.063**	-0.009	-0.014	0.004
	(-0.97)	(-2.10)	(-0.45)	(-0.51)	(0.17)
TONE_NEG	-0.091	-0.221	-0.175	0.367	-0.647
	(-0.20)	(-0.47)	(-0.21)	(0.73)	(-0.78)
TONE_POS	1.800**	3.531***	-0.345	2.754***	0.581
	(2.00)	(3.78)	(-0.20)	(2.64)	(0.36)
N	2,202	1,261	941	1,209	939
Adjusted R^2	0.014	0.025	0.014	0.004	0.029
Fixed Effects	Industry	Industry	Industry	Industry	Industry

Panel D: Robustness to Dropping Contemporaneous Earnings Announcements

Sample:	**Full**	**GCSTATUS using AGCPROP**		**GCSTATUS using BANKSCORE**	
		CLEAN Firms	**GCSUSPECT Firms**	**CLEAN Firms**	**GCSUSPECT Firms**
Dependent Var.:	**CAR**	**CAR**	**CAR**	**CAR**	**CAR**
	(1) Coefficient (t-Statistic)	**(2) Coefficient (t-Statistic)**	**(3) Coefficient (t-Statistic)**	**(4) Coefficient (t-Statistic)**	**(5) Coefficient (t-Statistic)**
MCLEAN_EXP	0.021**	0.007	0.035**	-0.007	0.050***
	(2.16)	(0.92)	(1.99)	(-0.84)	(3.31)
MGC_VOL	-0.010**	-0.010**	--[c]	--[c]	-0.019
	(-1.97)	(-2.09)			(-1.34)
N	1,145	773	372	723	397
Controls	Included	Included	Included	Included	Included
Adjusted R^2	0.048	0.013	0.064	-0.004	0.130
Fixed Effects	Industry	Industry	Industry	Industry	Industry

[a] Cumulative abnormal returns are computed for a three-day window around the post-ASU 2014-15 10-K release date. The sample is limited to non-AGC firms whose previous year 10-Ks included no disclosures regarding their going concern status.

[b] The numbers in parentheses are t-statistics to test for mean abnormal return against zero for each group.

[c] There are 0 MGC_VOL observations meeting the criteria for inclusion in this model.

Notes: Continuous variables are winsorized at the 1% and 99% levels; Industry fixed effects are based on the Fama-French 12-industry classification; t-statistics calculated using robust standard errors are reported in parentheses; Significance levels are based on two-tailed tests: *** p<0.01, ** p<0.05, * p<0.1; All variables are defined in Appendix B.

TABLE 7
Audit Fees, Audit Lag, and Management Disclosures

	Dependent Variable			
	AUDFEE		AUDLAG	
	GCSUSPECT Firms		GCSUSPECT Firms	
	Above Median AGCPROP	Above Median BANKSCORE	Above Median AGCPROP	Above Median BANKSCORE
	(1) Coefficient (t-Statistic)	(2) Coefficient (t-Statistic)	(3) Coefficient (t-Statistic)	(4) Coefficient (t-Statistic)
MCLEAN_EXP	0.127**	0.136**	0.028*	0.044***
	(2.17)	(2.23)	(1.81)	(2.83)
MGC_VOL	0.104	0.058	-0.000	-0.021
	(1.46)	(0.86)	(-0.01)	(-0.81)
SIZE	0.488***	0.468***	-0.016***	-0.023***
	(38.82)	(37.64)	(-3.07)	(-4.44)
LEV	-0.081	0.002	-0.027*	-0.005
	(-1.47)	(0.04)	(-1.72)	(-0.26)
ROA	-0.153***	-0.155***	0.037*	0.033*
	(-2.78)	(-2.63)	(1.93)	(1.66)
BTM	-0.147***	-0.076**	0.009	0.017*
	(-4.77)	(-2.12)	(1.17)	(1.81)
RECV	0.668***	0.812***	0.025	-0.052
	(4.38)	(5.22)	(0.57)	(-1.09)
INVT	0.252**	0.354**	-0.056	-0.111**
	(2.08)	(2.43)	(-1.37)	(-2.11)
FOREIGN	0.046	0.025	-0.011	-0.012
	(1.12)	(0.64)	(-0.98)	(-1.02)
SEG	0.575***	0.509***	0.055**	0.035
	(6.85)	(6.02)	(2.18)	(1.31)
EXTRAORD	0.104**	0.088*	0.003	-0.006
	(2.09)	(1.96)	(0.23)	(-0.43)
ICMW	0.238***	0.244***	0.166***	0.176***
	(4.41)	(3.50)	(10.76)	(8.59)
LITIGATION	0.021	-0.005	-0.008	0.001
	(0.49)	(-0.11)	(-0.59)	(0.09)
BIG4	0.382***	0.431***	-0.007	-0.025*
	(9.16)	(9.33)	(-0.63)	(-1.92)
AUDSPEC	0.124***	0.058	-0.007	-0.016
	(2.88)	(1.55)	(-0.63)	(-1.37)
OFFICESIZE	0.019***	0.015***	-0.001	-0.002
	(3.76)	(2.95)	(-1.26)	(-1.50)
BUSY	0.051	0.018	0.004	0.007
	(1.31)	(0.45)	(0.37)	(0.62)
ACCEL			-0.104***	-0.103***
			(-8.50)	(-7.34)
LGACCEL			-0.227***	-0.226***
			(-12.70)	(-12.34)
N	1,082	1,049	1,081	1,048
Adjusted R^2	0.793	0.836	0.417	0.501
Fixed Effects	Industry	Industry	Industry	Industry

Notes: Continuous variables are winsorized at the 1% and 99% levels; Industry fixed effects are based on the Fama-French 12-industry classification; t-statistics calculated using robust standard errors are reported in parentheses; Significance levels are based on two-tailed tests: *** p<0.01, ** p<0.05, * p<0.1; All variables are defined in Appendix B.

TABLE 8
Ability of MGC Disclosures to Predict Future Negative Firm Events

Frequency of Bankruptcy / Liquidation / Delisting in ASU Year

	Mandatory Disclosures		Voluntary Disclosures		No Disclosure
	MGC_EXP	MGC_MIT	MGC_VOL	MCLEAN_EXP	MNODISC
	(1)	(2)	(3)	(4)	(5)
Total Firms					
N	3	23	73	117	2,281
Bankruptcy / Liquidation / Delisting Outcome[a]					
N	0	2	1	0	12
Rate[b] **(%)**	0.00	8.70	1.37	0.00	0.53

[a] We identify bankruptcies from the Audit Analytics Bankruptcies file and liquidating and delisting firms using the delisting code (DLSTCD) field in CRSP's Stock Header file. We focus on delisting codes in the 400 and 500 series, which identify firms that liquidated or were otherwise dropped from the exchange (e.g., due to insufficient capital).

[b] The percentage of firms in each column that subsequently fail (i.e., go bankrupt, liquidate, or delist) within 1 year after the filing of financial statements.

APPENDIX A
Estimation of AGCPROP

We model the auditor's going concern decision in the ASU year as a function of financial, market, and other variables following prior literature (e.g., Francis and Krishnan 1999; DeFond, Raghunandan, and Subramanyam 2002). Specifically, our model takes the form:

$$P(AGC = 1) = F(X \cdot \beta) \quad [2]$$

where F(·) denotes the distribution function of a logistic model. The *X* vector comprises a comprehensive set of variables. We include firm size (*SIZE*) because smaller firms are more likely than larger firms to receive AGCs. Several variables capture financial distress: return on assets (*ROA*), leverage (*LEV*), and operating cash flows (*OCF*). We include the number of years the company has been traded (*AGE*) as younger firms are less likely to survive as going concerns (Dopuch, Holthausen, and Leftwich 1987). The ratio of cash and short-term investments to total assets (*INVEST*) proxies for liquidity. To control for a firm's ability to raise funds in the near term, we include a new financing variable (*FUTFIN*). We include three market variables, firm returns (*RETURN*), firm beta (*BETA*) and standard deviation of the residual from the market model (*IDIORISK*), to capture firm performance, systematic risk and firm-specific risk, respectively (Dopuch et al. 1987). We include the lag between the fiscal year end and the audit report date (*AUDITLAG*) because companies that receive AGCs are associated with longer reporting lags (Carcello, Hermanson, and Huss 1995). Finally, we include the previous year's audit opinion (*AGCLAG*) indicating a going concern opinion in the previous year).

In Table A1 below, we report descriptive statistics for the variables used in our model split based on whether the firm received an AGC. We note that AGC and non-AGC firms are different across all variables included in our model.

Table A1: AGCPROP Estimation Descriptive Statistics

	AGC=0		**AGC=1**		**Difference in Means**	
	Mean	**(Median)**	**Mean**	**(Median)**	**t-Statistic**	**Rank Sum**
Variable	**(1)**	**(2)**	**(3)**	**(4)**	**(1) – (3)**	**(2) vs. (4)**
ROA	-0.068	(0.019)	-1.006	(-0.810)	49.63***	25.63***
LEV	0.537	(0.518)	0.793	(0.703)	-13.74***	-8.13***
SIZE	6.584	(6.588)	3.516	(3.165)	26.39***	23.33***
RETURN	0.140	(0.118)	-0.001	(-0.064)	11.47***	10.69***
IDIORISK	0.028	(0.023)	0.062	(0.055)	-34.31***	-24.60***
BETA	1.237	(1.203)	1.018	(0.917)	5.46***	5.54***
AGE	19.596	(16)	8.770	(5)	10.16***	11.40***
INVEST	0.245	(0.141)	0.414	(0.348)	-9.61***	-7.86***
OCF	0.014	(0.072)	-0.719	(-0.560)	44.12***	23.92***
AUDITLAG	61.973	(59)	79.492	(80)	-24.53***	-20.25***
FUTFIN	0.528	(1)	0.743	(1)	-7.02***	-6.99***
AGCLAG	0.013	(0)	0.601	(1)	-55.24***	-44.20***
BIG4	0.724	(1)	0.317	(0)	14.54***	14.27***
N	2,497		183			

In Table A2, we present estimates for the logistic regression model. The signs for the coefficients on the variables are generally consistent with prior work. To calculate *AGCPROP*, we use the estimated coefficients from this model to predict the probability of each firm receiving an AGC.

Table A2: AGCPROP Model Estimation

		Dependent Variable: AGC	
Variables	**Pred.**	**Coefficient**	**(t-Statistic)**
ROA	-	-0.784	(-1.34)
LEV	+	1.401***	(4.01)
SIZE	-	-0.180	(-1.48)
RETURN	-	-1.962***	(-3.84)
IDIORISK	+	16.495**	(2.30)
BETA	+	0.276	(1.51)
AGE	-	-0.036***	(-2.84)
INVEST	-	-1.209*	(-1.91)
OCF	-	-1.354*	(-1.93)
AUDITLAG	+	0.038***	(3.89)
FUTFIN	-	-0.381	(-1.29)
AGCLAG	+	3.490***	(10.43)
BIG4	+	-0.532	(-1.45)
Intercept		-6.143***	(-5.34)
N		2,680	
Pseudo R^2		0.636	
Area under ROC Curve		0.977	

APPENDIX B
Variable Definitions

Variable	Definition
Management Going Concern Disclosure Indicator Variables	
MGC_EXP	1 if management explicitly stated that the firm has going concern problems and 0 otherwise (Source: 10-K).
MGC_MIT	1 if the management refers to going concern problems along with mitigating factors that alleviate the problems and 0 otherwise (Source: 10-K).
MGC_VOL	1 if management voluntarily disclosed going concern problems without reference to substantial doubt and 0 otherwise (Source: 10-K).
MCLEAN_EXP	1 if management explicitly stated that the firm has no going concern problems and 0 otherwise (Source: 10-K).
MDISC	1 if management makes a going concern related disclosure (MGC_EXP=1, MGC_MIT=1, MGC_VOL=1, or MCLEAN_EXP=1) and 0 otherwise (Source: 10-K).
MNODISC	1 if there is no disclosure of management's opinion on going concern issues and 0 otherwise (Source: 10-K).
Other Dependent and Control Variables	
ACCEL	1 if a firm is an accelerated filer and 0 otherwise (Source: Audit Analytics)
AGC	1 if a firm received a going concern modified opinion (i.e., unqualified opinion with an explanatory paragraph expressing substantial doubt about the entity's ability to continue as a going concern) from the auditor and 0 otherwise (Source: Audit Analytics).
AGCLAG	1 if a firm received a going concern modified opinion in the previous year's audit and 0 otherwise (Source: Audit Analytics).
AGCPROP	The propensity of a firm to receive an auditor's going concern opinion calculated based on the model estimated in Appendix A.
AGE	Number of years since the company was listed in a stock exchange (Source: CRSP).
ANALYSTS	Natural log of one plus the number analysts forecasting for the firm for the given year (Source: I/B/E/S)
AUDFEE	Annual audit fees for the firm (Source: Audit Analytics). Used in logged form as a dependent variable in the regressions.
AUDLAG	The number of days between fiscal year end and auditor's signature date (Source: Audit Analytics). Used in logged form as a dependent variable in the regressions.
AUDSPEC	1 if the firm employs an industry specialist auditor defined as having the highest audit fee market share for the given year in the two-digit SIC code and 0 otherwise (Source: Audit Analytics).
BANKSCORE	Bankruptcy score based on Ohlson (1980) calculated as: BANKSCORE = − 1.32 − 0.407 * [Log Total Assets (AT)] + 6.03 * [Total Liabilities (LT) / AT] – 1.43 * [Working Capital (ACT–LCT) / AT] + 0.076 * [Current Liabilities (LCT) / Current Assets (ACT)] – 2.37 * [Net Income (NI) / AT]– 1.83 * [Cash Flow from Operations (OANCF) / LT]– 0.521 * [[NI_t – NI_{t-1}] / [|NI_t|+ |NI_{t-1}|]]– 1.72 * [1 if LT > AT, 0 otherwise] + 0.285 * [1 if NI < 0 for previous two years, 0 otherwise) (Source: Compustat)
BETA[a]	Slope coefficient of market model regression (Source: CRSP).
BIG4	1 if the firm is audited by one of the Big Four (Deloitte, EY, KPMG, or PricewaterhouseCoopers) auditors and 0 otherwise (Source: Audit Analytics).
BTM	Ratio of the book value of common equity (Compustat data item CEQ) to the market value of common equity (Compustat data items PRCC_F * CSHO) (Source: Compustat).
BUSY	1 if a firm has a fiscal year ending in December during the traditional audit busy season and 0 otherwise (Source: Audit Analytics).
CAR	The cumulative size-adjusted abnormal return (i.e., size-decile portfolio's daily returns subtracted from the company's raw daily returns), measured over the three-day window [-1,1] around the 10-K filing date.
EXTRAORD	1 if a firm has extraordinary items or discontinued operations reported in Compustat (Compustat data item XIDO is non-missing and non-zero) and 0 otherwise (Source: Compustat).

FOREIGN	Ratio of foreign income (Compustat data item PIFO) to sales (Compustat data item SALE) (Source: Compustat).
FUTFIN	1 if the firm obtains new financing, where new financing is represented by either of the following cases, and 0 otherwise: • Sales of common and preferred stock (Compustat data item SSTK) in year *t+1* is positive and exceeds 10% of equity (Compustat data items CEQ+PSTK) at the end of year *t* • Long-term debt issuances (Compustat data item DLTIS) in year *t+1* is positive and exceeds total 10% of debt (Compustat data item LT) at the end of year *t* (Source: Compustat)
ICMW	1 if a firm has at least one internal control material weakness and 0 otherwise (Source: Audit Analytics).
IDIORISK[a]	Standard deviation of the residual from the market model (Source: CRSP).
INVEST	Sum of the firm's cash and investment securities (Compustat data item CHE+IVAEQ), scaled by total assets (Source: Compustat).
INVT	Inventory (Compustat data item INVT) divided by total assets (Compustat data item AT).
LEV	Total liabilities (Compustat data item LT) divided by total assets (Compustat data item AT) (Source: Compustat).
LGACCEL	1 if a firm is a large accelerated filer and 0 otherwise (Source: Audit Analytics).
LITIGATION	1 for firms residing in a high litigation risk industry following Francis, Philbrick, and Schipper (1994) and 0 otherwise; high litigation risk industries include pharmaceuticals and biotechnology (SIC 2833-2836 and 8731-8734), computers (SIC 3570-3577 and 7370-7374), electronics (SIC 3600-3674), and retail (SIC 5200-5691) (Source: Audit Analytics).
OCF	Operating cash flow (Compustat data item OANCF) divided by total assets (Source: Compustat).
OFFICESIZE	Office size of the auditor measured as the natural log of 1 plus the audit fees derived from other clients of the audit office (Source: Audit Analytics).
RECV	Receivables (Compustat data item RECT) divided by total assets (Compustat data item AT).
RETURN[a]	Common stock returns over the estimation window of the market model (%) (Source: CRSP).
ROA	Net income (Compustat data item NI) divided by total assets (Compustat data item AT) (Source: Compustat).
SEG	Natural log of the number of firm segments (Source: Compustat).
SIZE	Natural log of total assets (Source: Compustat).
TONE_NEG	Number of words in the firm's Form 10-K belonging to the NEGATIVE category (per the Loughran and McDonald (2011) dictionary) divided by the total number of words in the 10-K (Source: 10-K).
TONE_POS	Number of words in the firm's Form 10-K belonging to the POSITIVE category (per the Loughran and McDonald (2011) dictionary) divided by the total number of words in the 10-K (Source: 10-K).
Variables Used Exclusively for Validation of Management Going Concern Disclosure Classifications	
COD	Following Kausar, Shroff, and White (2016), firm's cost of debt measured as the interest expense (Compustat data item XINT) scaled by lagged total debt (Compustat data item DLTT+DLC) conditional on the firm financing at least 1% of its assets with debt (Source: Compustat).
COE	The firm's cost of equity measured based on the price-earnings growth model as outlined by Easton (2004). This ex-ante cost of capital measure is calculated as: $\sqrt{\frac{eps_2 - eps_1}{P_0}}$ where eps_1 = one-year-ahead mean analysts' earnings per share forecast in the month following the 10-K release; eps_2 = two-year-ahead mean analysts' earnings per share forecast in the month following the 10-K release; P_0 = price per share at the end of the month following the 10-K release.

[a] For market variables (*IDIORISK*, *BETA*, and *RETURN*), market model is estimated over the 200-day window ending 21 days before the fiscal year end, with a minimum requirement of at least 70 trading days.