Investor Reaction to Going Concern Audit Reports

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ABSTRACT: The literature provides mixed evidence on whether investors find audit reports modified for going concern reasons to be useful. Using a substantially larger sample than previous studies, we observe negative excess returns when the going concern audit report (GCAR) is disclosed. We find that the reaction is more negative if the GCAR cites a problem with obtaining financing, suggesting that the GCAR provides new information to investors. Also, the reaction is more adverse if the GCAR triggers a technical violation of a debt covenant that restricts the firm from getting a GCAR. The evidence suggests that institutional investors drive the reaction to the GCAR, since there is no detectable reaction at low levels of institutional ownership. The market reaction gets more negative as the level of institutional ownership increases, and there is a decline in institutional ownership after the GCAR is issued. We attribute these results to sophisticated investors’ awareness of the firm’s financing needs and the covenants carried by the firm’s debt.

Keywords: audit reports; going concern; debt covenants; institutional ownership.

Data Availability: The data used in this study are publicly available through sources identified in the study.

I. INTRODUCTION

AS No. 59 (AICPA 1988) requires auditors to assess a client’s going concern status. If, after considering all relevant information, the auditor has substantial doubt about the entity’s ability to continue as a going concern, then the auditor is required to modify the audit.
report.\footnote{The Financial Accounting Standards Board has an ongoing project intended to make managers, not just auditors, responsible for identifying and disclosing going concern uncertainties.} We refer to an audit report modified for going concern reasons as a “going concern audit report” (GCAR). There is a long-standing debate on the usefulness of the GCAR. Auditors have expertise in assurance audits, not in judging the going concern status of a firm, and their assessment may not add to what investors already know. On the other hand, auditors have access to information unavailable to investors and can reveal this information through the GCAR.

One way of judging the usefulness of the GCAR is to see whether investors react to GCAR announcements. If the auditor’s unfavorable assessment provides new information on the firm, then the price of the firm’s securities should decline. Several event studies have examined the market reaction to the issuance of GCARs.\footnote{For convenience, we use the term “GCAR” to refer not only to audit reports modified for going concern purposes, the appropriate terminology under SAS No. 59, but also to “going concern qualifications,” the terminology used before SAS No. 59.} While early studies (Elliott 1982; Dodd et al. 1984) do not detect a negative market reaction to qualified reports, including GCARs, later studies (Fleak and Wilson 1994; Jones 1996) find a negative reaction to GCARs. More recent research by Herbohn et al. (2007), using an Australian sample, and Blay and Geiger (2001) do not report a significant negative reaction to GCARs.

Our study provides evidence on this issue, using a substantially larger sample than those used in previous studies. We find, on average, a significant negative reaction to the announcement of a first-time GCAR. However, our primary contribution to the literature lies in going beyond the initial question of \textit{whether} investors react to the GCAR. We investigate \textit{why} investors react to the GCAR and \textit{who} (which class of investors) reacts to the GCAR.

One reason a GCAR may elicit a reaction from investors is that it can provide new information on the status of the client’s negotiations with lenders and the client’s plans to raise financing. Sometimes, auditors specifically refer to financing problems in the GCAR. We find that investors react more adversely to GCARs that cite financing problems. Further, since many firms carry debt with a covenant that requires the firm to present GCAR-free financial statements, the GCAR can trigger covenant violation that results in stricter loan terms. We show that the reaction to the GCAR is worse for firms that violate a covenant when they receive a GCAR.

We also consider whether the reaction to the GCAR depends upon the firm’s ownership composition. Kausar et al. (2006) present evidence that institutional investors divest shares in firms receiving a GCAR. We find that the price reaction to the GCAR varies inversely with the level of institutional ownership. Also, the negative market reaction for firms with GCARs citing financing problems or for firms violating a debt covenant by receiving a GCAR is observed only at higher levels of institutional ownership. We attribute the differences to institutional investors likely having greater knowledge of the terms of the firm’s debt contracts.

Our study contributes primarily to the line of auditing research on GCARs. First, we provide relatively unambiguous evidence that, on average, going concern audit reports provide useful information. Second, we provide insight into the reasons that investors find the GCAR to be useful by showing that GCARs that cite financing problems result in a more negative reaction than do other GCARs. Third, while there is evidence of the importance of restrictive debt covenants in other areas of accounting research, there is little or no evidence in auditing. We show that audit-related covenants also affect investors’ decisions. Fourth, our study adds to the literature by showing that institutional investors use the information in audit reports.

In the next section, we discuss the usefulness of GCARs and review the relevant literature. We expand on the reasons why the report should be useful to investors and we develop hypoth-
II. ARE GOING-CONCERN AUDIT REPORTS USEFUL?

SAS No. 59 (AICPA 1988) directs auditors to actively assess whether the client is a going concern, and, if there is substantial doubt about the client’s going concern status, to modify the audit report accordingly. The usefulness of GCARs has long been questioned, even within the accounting profession (Bellovary et al. 2006). Auditors have unique training and expertise in audits, not in assessing the firm’s future financial prospects. Further, investors are able to form their own assessments of the likelihood that the firm will be a going concern using a variety of information sources, including financial statements. At the same time, auditors have access to insider information (such as management plans and the status of client-lender negotiations) that could allow them to form superior judgments to those formed by investors who do not have access to similar information.

Several studies have investigated the market reaction to GCARs. Some of these studies do not look at GCARs separately, but along with other audit report modifications or qualifications. Elliott (1982) studies firms receiving “subject-to” audit qualifications and finds no significant market reaction to the release of the audit qualification. Dodd et al. (1984) also find no evidence that investors react adversely to audit qualifications, although a follow-up paper by Dopuch et al. (1986) reports that firms that have qualified opinions that are reported in the business press experience negative excess returns around the report date.

Jones (1996) observes negative returns around the announcement date for 68 firms receiving GCARs, with the return worsening for more unexpected GCARs. Similarly, Fleak and Wilson (1994) find that 114 firms receiving GCARs experience negative returns when compared with distressed firms receiving unmodified opinions. In contrast, Blay and Geiger (2001) find a statistically insignificant market reaction, on average, to a sample of 121 firms receiving GCARs. In a study of 229 Australian firms, Herbohn et al. (2007) find no short-term market reaction to the release of the annual report containing the GCAR.

In summary, results are mixed on the question of whether investors react adversely to the issuance of going concern audit reports. We expect a GCAR to result in a negative investor reaction for two reasons. First, the auditor may provide new information to investors in the GCAR. While investors can extract information about the firm’s financial condition efficiently from financial statements, SAS No. 59 directs auditors to go beyond the financial statements in assessing the client’s going concern status and to look at management’s plans to address liquidity, including

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3 Ellingsen et al. (1989) provide a detailed comparison between SAS No. 59 and its predecessor, SAS No. 34, which merely required auditors to ensure that going concern uncertainties that come to light during the normal course of an audit are adequately disclosed.
4 Reports in the business press commonly claim that the disclosure of a GCAR results in a negative investor reaction (e.g., Carns 2000).
5 Blay and Geiger (2001) observe a difference in returns between firms in their sample that subsequently went bankrupt and firms that survived. The authors attribute their results to differential market expectations for the two groups; that is, investors may already have anticipated impending bankruptcy for firms that went bankrupt following the GCAR.
6 Of the event studies cited here that use samples of firms receiving GCARs, Jones (1996), Blay and Geiger (2001), and Herbohn et al. (2007) study only first-time GCARs; Fleak and Wilson (1994) include both first-time and repeat GCARs. Some studies treat the first release of information (either a press release or the filing of the 10-K) on the GCAR as the event date (Blay and Geiger 2001; Herbohn et al. [2007]); others use the annual report or 10-K filing date as the event date. Blay and Geiger (2001) use size-adjusted returns to measure the market’s reaction to the event; Herbohn et al. (2007) use market-adjusted returns; other studies use risk-adjusted returns.
financing plans, and the likelihood that these plans will adequately address the firm’s problems. Much of this information is not publicly available, and by issuing a GCAR the auditor may reveal this information and change investors’ beliefs. Hopwood et al. (1989) show that the audit report provides a statistically significant contribution to a bankruptcy prediction model. Also, Chen and Church (1996) and Holder-Webb and Wilkins (2000) find that GCARs reduce the surprise associated with bankruptcy announcements, suggesting that investors incorporate the information in a GCAR in assessing the likelihood of bankruptcy.

Second, we argue that GCARs can impose contracting costs on firms, which is likely to result in an adverse market reaction. We focus on GCARs that result in technical violation of debt covenants. We discuss this explanation later in this section.

Where most previous studies of GCARs are limited by relatively small sample sizes, our study uses a large sample of 1,194 firms that receive first-time GCARs. Improved data availability allows us to identify the first time that investors learn of the GCAR more precisely than done in many previous studies. With these improvements, we expect to show that investors value the auditor’s assessment of the firm’s going concern status. Our first hypothesis, in the alternative form, follows.

H1: Investors react negatively to the announcement of a GCAR.

While our paper contributes to the literature in providing large-sample evidence on the GCAR’s usefulness to investors, its main contribution lies in exploring reasons for the market’s reaction. We investigate whether the informativeness of a GCAR depends upon the reason provided by the auditor for issuing the modified report, the presence of a GCAR-restricting debt covenant, and the level of institutional ownership.

In issuing a GCAR, the auditor reveals his/her assessment of the likelihood that the firm will survive beyond a year, and in doing so may implicitly reveal information about financing plans and the status of the firm’s dealings with lenders and others. Sometimes, however, the auditor explicitly provides information on the firm’s difficulties in servicing debt or in raising capital. In a GCAR, the auditor typically provides an explanation for why the audit report was modified. Often, the reason provided is very general (for example, that the firm has sustained recurring operating losses) and does not reveal anything that is not already apparent from financial statements. However, some audit reports are more specific and attribute the auditor’s decision to issue a going concern modification to particular operating or financing problems. If the auditor cites the firm’s financing problems, including difficulties in negotiating with existing lenders or problems in obtaining new financing, then we expect that investors will see the GCAR as conveying the auditor’s pessimism about the firm’s ability to raise needed capital, and will react more negatively to the GCAR than if the GCAR does not mention financing problems.

H2: Investors react more negatively to GCARs that specifically cite financing problems than to GCARs that do not cite financing problems.

A GCAR potentially affects the firm’s contracting costs in several ways. It could cause stock exchanges to question whether the firm should continue to be listed. Lenders may adjust the terms of their loans, credit-rating agencies may adjust their ratings, and suppliers may curtail credit to

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7 Norris (2003) provides an anecdote of an instance where the critical determinant in the auditor’s decision to issue a GCAR was the likelihood that the client (Polaroid Corp.) would not obtain refinancing.

8 For example, New York Stock Exchange rules indicate that receiving a GCAR may provide cause for a firm to be delisted. Both the NASDAQ and the American Stock Exchange have recently (since 2004) required listed firms to inform investors of the receipt of a GCAR by issuing a press release within seven days following the 10-K filing.
firms receiving GCARs. In all, the GCAR can severely constrain the firm’s ability to raise capital and continue to operate. Investors are likely to anticipate the increased contracting costs that follow GCARs and to react negatively to the announcement of a GCAR.

We focus on the existence of a restrictive debt covenant requiring the firm to prepare financial statements without a GCAR. If the debt carries such a covenant, then the issuance of a GCAR to the borrower would likely lead to higher contracting costs. Beneish and Press (1993) find that technical violation of accounting-related covenants results in higher interest costs, debt-restructuring costs, and increased lender control. As a result, investors react negatively to reports of technical violations of covenants (Beneish and Press 1995). Since investors are aware of covenants, we expect that violation of a covenant restricting the firm from receiving a GCAR will have an adverse result on stock prices. This leads to our third hypothesis:

**H3:** Investors react more negatively to GCARs issued to firms that have a debt covenant that restricts the firm from receiving a GCAR than to GCARs issued to firms that do not have such a covenant.

Kausar et al. (2009) find that U.S. firms receiving GCARs experience negative returns in the year following the GCAR disclosures. They attribute this apparent under-reaction on the part of investors to market frictions, specifically high transaction costs associated with trading in GCAR-receiving firms. In a related study, Kausar et al. (2006) find that institutional investors react differently from individual investors to the GCAR. Institutional investors reduce their holdings in firms receiving GCARs.

Prior studies have identified differences in the way that institutional investors and individual investors react to accounting information. Several potential reasons have been identified for this differential reaction. Two common reasons offered are: (1) institutional investors possess information advantages, such as greater predisclosure information (e.g., Utama and Cready 1997); and (2) there are differences in the level of sophistication of institutional and individual investors, stemming in part from differences in the amount of time and resources that these two investor groups can afford to spend on their investment decisions (e.g., Walther 1997).

If institutional investors have an informational advantage with respect to the GCAR, then this advantage should be reflected in these investors knowing about the GCAR before it is announced and reacting before the GCAR is announced, rather than reacting after it is announced. We should then observe the adverse reaction to the announcement of a GCAR being mitigated by increasing levels of institutional ownership. However, even if institutional investors had predisclosure information about the GCAR pre-Regulation FD, it is likely that this advantage would be largely dissipated following Regulation FD. Since most of our sample is drawn from the post-Regulation FD period, this advantage, if it exists, should be muted for our sample.

Even absent information advantages, institutional investors could use their superior resources and expertise to make different investment decisions from individual investors. For example, institutional investors may be better aware of the status and terms of the firm’s debt contracts, including whether the debt carries a covenant restricting a GCAR and the likely costs of violating this covenant.

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9 For example, in 2002, Standard & Poor’s cut GenTek Inc.’s corporate credit rating, citing the company’s poor financial performance and receipt of a GCAR (Business Recorder 2002). Landler (2004) cites a company (Spiegel Inc.) that delayed filing its 10-K because disclosing that the firm had received a GCAR “would have jeopardized Spiegel by unnerving its suppliers and disrupting [the CEO’s] negotiations with the banks.”

10 Similarly, Taffler et al. (2004) compute buy-and-hold abnormal returns for a portfolio of U.K. firms in the 12 months following their receipt of a GCAR, and find that these firms substantially underperform reference portfolios. Ogueva and Subramanyam (2007), in contrast, using a sample of U.S. firms, suggest that the Taffler et al. (2004) results depend on the model used to generate abnormal returns.
Note that the information advantage and investor sophistication arguments point to different predictions for the relationship between the level of institutional holdings and the announcement period reaction to the GCAR. If the investor sophistication argument prevails, then we expect institutional investors to react more negatively to the GCAR than individual investors, and the market reaction to the GCAR should become more adverse with increasing levels of institutional holdings. We believe the investor sophistication argument is more persuasive and we express H4 accordingly.

**H4:** The investor reaction to the announcement of a GCAR is negatively related to the level of institutional ownership in the firm.

### III. METHOD AND TESTS

The sample for the study consists of firms that receive an initial GCAR in the period 1995 to 2006. We identify firms receiving an initial GCAR (that is, firms receiving a GCAR that did not receive a GCAR in the previous year) by searching the Compact Disclosure database, the Audit Analytics database, Compustat, and the business media, and then confirming the existence of a first-time GCAR by reading audit reports in current and previous 10-K filings. We exclude all American Depositary Receipts (ADRs). We include only the first GCAR received by the firm in our sample, even if the firm obtains a GCAR, or several consecutive GCARs, is then issued an unmodified opinion, and later receives a GCAR once more. Consequently, each firm appears only once in our sample. We apply this rule since we believe market expectations and security price reactions will be different for firms receiving continuing GCARs.

Our initial sample consists of 4,541 firms with first-time GCARs. Table 1, Panel A details how we arrived at the final sample. We exclude firms that do not have data on CRSP and Compustat. We also omit firms that are already in bankruptcy. We drop very small firms (firms with less than $1 million in either total assets or market value of equity). Our final sample consists of 1,194 firms. Table 1, Panel B provides the frequency of observations by year. The highest frequency of GCARs is observed in the year 2000.

Table 2 provides descriptive statistics for the firms in the sample. Market prices are obtained from CRSP; institutional ownership data are obtained from the CDA/Spectrum Institutional Holdings database, and filing dates are obtained through the SEC’s EDGAR database or Lexis-Nexis. On average, sample firms receiving GCARs are small (mean total assets = $165.7 million; mean market value of equity = $50.7 million). The firms are very distressed, as should be expected for GCAR-receiving firms, with negative and declining profitability, negative cash generating ability, and high leverage. The level of institutional ownership averages 13.0 percent. SEC rules specify that firms must file their 10-K reports within a certain number of days of the end of the fiscal year. We find that nearly one half (48.9 percent) of the sample have material delays in filing their 10-K, which we define as filing more than five days late; 68.2 percent of the sample firms have Big 4 auditors. We also calculate the earnings surprise for the 497 firms in the sample for which we have analyst forecast data. The earnings surprise, scaled by stock price, has a mean of –0.62 and a median of –0.07. The low mean likely reflects the nature of the GCAR sample (highly distressed firms with low stock prices).

**Market Reaction to First GCAR Disclosure**

We use the earliest date on which the GCAR is announced to investors as the event date to determine whether there was a market response to the GCAR announcement. Some firms an-

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11 The excluded small firms have the following characteristics (all medians): total assets: $1.52 million; market value of equity: $0.58 million; earnings before interest and taxes: $(2.60) million; stock price: $0.21 per share.
announce the issuance of the GCAR prior to the release of the 10-K through a press release (“Early Disclosers”), but in most cases investors first learn of the GCAR in the 10-K (“10-K Disclosers”). For Early Disclosers, we use the press release date as the event date.\(^{12}\) For 10-K Disclosers, we use the 10-K filing date as the event date, since this is the first date that investors become aware of the GCAR, absent information leakage.

To identify firms that belong to the Early Disclosers sample, we review through Lexis-Nexis all press releases placed on newswires by each GCAR firm prior to the filing of the 10-K announcing the GCAR. We find that 105 of the 1,194 firms issue a press release at least three days prior to the filing of the 10-K.

\(^{12}\) It is unclear why some firms make early disclosures of GCARs. Early disclosers in our sample are not different from other sample firms in terms of profitability, financial distress, or in the likelihood they employ a Big 4 auditor. However, they tend to be larger than the other firms and to have more analysts following them. Early disclosers also are more likely to have made an accounting restatement in the past year. The larger size and analyst following may be consistent with arguments in the voluntary disclosure literature that managers voluntarily disclose bad news because of reputation and litigation concerns (e.g., Skinner 1994).
prior to the 10-K date, indicating that their auditors will issue a GCAR for the current year. Many of these disclosures are provided in early earnings announcements.\textsuperscript{13} On average, these firms disclose the GCAR in a press release 11.6 days before their 10-K filing.

In Table 3, we report daily size-adjusted excess returns for the event date and the five days preceding and succeeding the event date for the 1,194 sample firms.\textsuperscript{14} Mean excess returns for Day 0, Day +1 and Day +2 are significantly negative, with the most negative return taking place on Day +1 (−3.49 percent).\textsuperscript{15} The cumulative three-day excess return (0, +2) is −6.28 percent.\textsuperscript{16}

\textsuperscript{13} A very small number of firms issue press releases that announce only the GCAR. These firms provide a “pure” sample, in the sense that there is no other information included in the press release that may explain investors’ reaction. However, there are too few of these firms to provide any detailed analysis. In the full sample, 35 firms issue press releases containing GCAR announcements but not earnings news. Only 16 of these firms issue the press release either before or concurrent with (up to one day following) the 10-K date. The mean three-day cumulative excess return (0, +2) for the 16 firms issuing early or timely press releases is significantly negative (−8.52 percent, \( p < 0.05 \)), but the mean cumulative excess return for the firms issuing late press releases is not significantly different from zero.

\textsuperscript{14} Daily excess returns are computed by taking the firm’s daily return and subtracting the corresponding size-decile portfolio return for the day from CRSP. We choose to use size-adjusted returns because the sample is dominated by small firms. A long line of studies, stretching back to Banz (1981), shows a relationship between firm size and market returns. Standard Student’s t-statistics are used to test whether the computed daily excess return are significantly different from zero.

\textsuperscript{15} It is possible that the larger magnitude of negative returns obtained on day \( t+1 \), relative to day \( t \), is explained by the availability of the information to investors. For the firms in our sample for which the event date is the 10-K filing date, the information may have been available to investors only the next day. Similarly, some firms announcing GCARs in press releases may have made the disclosure after markets closed for the day.

\begin{table}[h]
\centering
\caption{Descriptive Statistics}
\begin{tabular}{lccccc}
\hline
\textbf{Full Sample (n = 1,194)} & \textbf{Mean} & \textbf{Standard Deviation} & \textbf{Lower Quartile} & \textbf{Median} & \textbf{Upper Quartile} \\
\hline
Assets ($ millions) & 165.7 & 758.9 & 9.0 & 25.5 & 90.9 \\
Market value of equity ($ millions) & 50.7 & 100.5 & 7.5 & 19.0 & 47.4 \\
Earnings before interest and taxes & −0.60 & 0.91 & −0.81 & −0.29 & −0.06 \\
Change in income & −0.27 & 0.79 & −0.44 & −0.16 & 0.00 \\
Cash flow from operations ($ millions) & −7.15 & 48.9 & −10.45 & −3.22 & −0.20 \\
Return on Assets & −0.83 & 1.20 & −1.06 & −0.49 & −0.19 \\
Z-score & 2.03 & 3.27 & 0.54 & 1.27 & 3.40 \\
Exit Value ($ millions) & −2.75 & 90.4 & −1.71 & 2.32 & 11.59 \\
Earnings Surprise (n = 497) & −0.62 & 4.16 & −0.47 & −0.07 & 0.01 \\
Debt/Assets & 0.77 & 0.76 & 0.45 & 0.70 & 0.93 \\
Institutional Ownership & 0.13 & 0.16 & 0.01 & 0.07 & 0.20 \\
Late 10-K filers & 48.9% & — & — & — & — \\
Big 4 auditors & 68.2% & — & — & — & — \\
\hline
\end{tabular}
\end{table}

Total assets, market value of equity, earnings before interest and taxes, change in income, cash flow from operations, return on assets, Exit Value, and debt/assets are all based on year-end or annual numbers for the period for which the GCAR is issued. Change in income is scaled by total assets. Earnings before interest and taxes is scaled by assets and adjusted for the industry average. Return on assets is net income/total assets. Z-score is a composite measure of financial distress based upon Zmijewski (1984). Exit Value is the firm’s anticipated liquidation value as computed based upon Berger et al. (1996). Earning Surprise is computed as (actual EPS − mean forecasted EPS)/stock price at beginning of the fourth quarter. Debt/Assets is total liabilities divided by total assets. Institutional ownership is the fraction of outstanding common stock owned by institutions. Late 10-K filers indicates the percentage of firms that file 10-Ks at least five days after the statutory filing date. Big 4 auditors indicates if the firm is audited by a Big 4 audit firm or one of its predecessors.
The average percentage of firms incurring negative excess returns each day over the 21 days from Day 1 through Day 21 (where Day 0 is the event date) is 54.0 percent. On Day 0, Day +1, and Day +2, the percentages of firms with negative excess returns are 59.2 percent, 63.0 percent, and 58.4 percent, respectively, all significantly higher than the 21-day average. Table 3 reports daily returns separately for the samples of 10-K Disclosers and Early Disclosers, as well. The

**TABLE 3**

<table>
<thead>
<tr>
<th>Day</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Median</th>
<th>% Negative</th>
</tr>
</thead>
<tbody>
<tr>
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<td>0.1082</td>
<td>−0.0019</td>
<td>51.4%</td>
</tr>
<tr>
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<td>0.1029</td>
<td>−0.0004</td>
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<tr>
<td>−3</td>
<td>−0.0017</td>
<td>0.1064</td>
<td>−0.0011</td>
<td>52.1%</td>
</tr>
<tr>
<td>−2</td>
<td>0.0011</td>
<td>0.1324</td>
<td>−0.0021</td>
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<tr>
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<td>0.0004</td>
<td>0.1164</td>
<td>−0.0020</td>
<td>52.5%</td>
</tr>
<tr>
<td>0</td>
<td>−0.0150**</td>
<td>0.1301</td>
<td>−0.0080</td>
<td>59.2%**</td>
</tr>
<tr>
<td>1</td>
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<td>0.1353</td>
<td>−0.0179</td>
<td>63.0%**</td>
</tr>
<tr>
<td>2</td>
<td>−0.0129**</td>
<td>0.1217</td>
<td>−0.0074</td>
<td>58.4%**</td>
</tr>
<tr>
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</tr>
<tr>
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<tr>
<td>5</td>
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<td>0.1135</td>
<td>−0.0035</td>
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</table>

**Early Disclosers Sample (n = 105)**

<table>
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<th>Day</th>
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<th>Median</th>
<th>%Negative</th>
</tr>
</thead>
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</tr>
<tr>
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<td>−0.0084</td>
<td>57.1%</td>
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<tr>
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<td>67.6%*</td>
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<tr>
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<td>−0.0298</td>
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<td>−0.0091</td>
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<tr>
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<td>−0.0086</td>
<td>54.3%</td>
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</tbody>
</table>

The event date is the earliest GCAR disclosure date (for 10-K Disclosers, the 10-K filing date; for Early Disclosers, the GCAR-disclosing press release date). The table presents statistics for daily size-adjusted excess returns. Significance levels are for t-tests for differences in the mean daily excess return from zero or for Chi-square tests for differences in the percentage of negative excess returns in a given day from the average for the 21 days around the event date for sample firms.

The cumulative excess return for the announcement period (0, +2) is computed by adding the daily excess returns for the three days beginning with the event day.

---

* * * p < 0.05, and p * * < 0.01, respectively, two-tailed.
10-K Disclosers have a cumulative three-day excess return of $-5.48$ percent.\textsuperscript{17} The Early Disclosers experience a mean cumulative three-day ($0, +2$) excess return of $-14.64$ percent.

The results shown in Table 3 suggest a negative investor response to the GCAR announcement, consistent with H1.\textsuperscript{18} However, the computed announcement period return may be contaminated by other information that is released at the same time. Like other studies investigating the market reaction to GCARs, we are unable to precisely separate the GCAR news from concurrent disclosures. For the majority of firms in the sample, the GCAR news becomes available simultaneously with other 10-K information. Even for firms that announce the GCAR early in a press release, there is generally other information released at the same time, such as annual earnings. In later analyses, we attempt to mitigate this problem and provide greater confidence that the observed negative reaction is due to the GCAR.

Cited Reasons for the GCAR

The GCAR generally carries a brief explanation for why the auditor chose to modify the audit report. We review the explanations for the GCARs in our sample and classify explanations into four categories: (1) \textit{Poor financial performance}. This category includes explanations that cite the financial condition or performance of the company, including references to the firm’s present or recurring losses, negative cash flows, poor working capital situation, or negative equity. (2) \textit{Financing problems}. In this category, we include references to debt defaults, debt covenant violations, loss of credit facilities, or the need for, or problems in securing, additional financing.\textsuperscript{19} (3) \textit{Operating problems}. This category includes references to specific operating problems, such as the loss of a key customer, problems with suppliers, or business combination issues.\textsuperscript{20} (4) \textit{Other}. All other reasons cited for the GCAR are included in this category (such as litigation and regulatory issues).

Table 4, Panel A shows the frequency with which the auditor attributes the GCAR issuance to each of these reasons. Since a GCAR can cite more than one reason, the total frequency adds up to more than 1,194 for the full sample. Only in 15 cases does the auditor not provide a reason for the GCAR. The most commonly cited reason is poor financial performance (75 percent of firms), but in a significant number of cases the auditor cites financing problems (35.5 percent) or operating problems (21.2 percent). Table 4 also breaks out the frequency separately for the 10-K Disclosers sample and the Early Disclosers sample. The most notable difference between these two samples is the higher frequency of early disclosing firms, where the auditor cites financing problems (52.4 percent, against 33.9 percent for the 10-K Disclosers sample).

These different reasons for the GCAR cited by the auditor likely have different information content for investors. A citation of poor financial performance, for example, does not go beyond

\textsuperscript{17} Twelve firms in the sample announce the GCAR in press releases on the day preceding or two days preceding the 10-K filing. We include these firms in the 10-K Disclosers sample since the event window includes the 10-K filing. Excluding these firms does not alter any of the reported results for the 10-K Disclosers sample.

\textsuperscript{18} The investor reaction to the GCAR announcement is conditioned upon the extent to which the announcement was anticipated. Investors may anticipate the GCAR because of the information they have from interim financial reports and other sources about the financial condition of the firm. To the extent that the GCAR is anticipated, it will bias against observing a negative reaction, since investors will already have priced in the information.

\textsuperscript{19} As an example of a financing problem, the auditor’s report for Blockbuster Inc. (not in the sample) for the fiscal year 2008 states the following: "[T]he risk the Company may not successfully complete a refinancing of its credit facility scheduled to mature in August 2009 and obtain related amendments of financial covenants included therein, and/or the risk the Company may not have adequate liquidity to fund their operations raise substantial doubt about the Company’s ability to continue as a going concern.”

\textsuperscript{20} An example of a GCAR attributed to an operating problem is provided by Pinnacle Airlines Corp.’s GCAR for the fiscal year 2005. The auditor notes: "[T]he uncertainty regarding the future of the Company’s contract with its primary customer due to this customer seeking protection under Chapter 11 of the U.S. Bankruptcy Code raises substantial doubt about the Company’s ability to continue as a going concern.”
### TABLE 4
Reasons Cited for GCARs and Debt Covenant Requirements Related to GCARs

**Panel A: Reasons Cited for GCAR in Audit Report/Press Release**

<table>
<thead>
<tr>
<th>Reason</th>
<th>All Firms (n = 1,194)</th>
<th>10-K Disclosers Sample (n = 1,089)</th>
<th>Early Disclosers Sample (n = 105)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>%</td>
<td>Frequency</td>
</tr>
<tr>
<td>Poor financial performance</td>
<td>895</td>
<td>75.0</td>
<td>817</td>
</tr>
<tr>
<td>Financing problems</td>
<td>424</td>
<td>35.5</td>
<td>369</td>
</tr>
<tr>
<td>Operating problems</td>
<td>253</td>
<td>21.2</td>
<td>233</td>
</tr>
<tr>
<td>Other</td>
<td>131</td>
<td>11.0</td>
<td>121</td>
</tr>
<tr>
<td>No reason cited</td>
<td>15</td>
<td>1.3</td>
<td>12</td>
</tr>
</tbody>
</table>

**Panel B: Analysis of Debt Covenant Requirements**

<table>
<thead>
<tr>
<th>Covenant Type</th>
<th>All Firms (n = 1,194)</th>
<th>10-K Disclosers Sample (n = 1,089)</th>
<th>Early Disclosers Sample (n = 105)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Covenants requiring audit report without GCAR</td>
<td>193</td>
<td>16.2</td>
<td>157</td>
</tr>
<tr>
<td>Covenants requiring “unqualified” report</td>
<td>92</td>
<td>7.7</td>
<td>85</td>
</tr>
<tr>
<td>Covenants with financial statements required to be presented on a going concern basis</td>
<td>21</td>
<td>1.8</td>
<td>19</td>
</tr>
<tr>
<td>Covenants with other restrictions related to financial statements (“presents fairly,” “fair and accurate,” “in good faith”)</td>
<td>49</td>
<td>4.1</td>
<td>44</td>
</tr>
<tr>
<td>Covenants requiring audited financial statements without additional restrictions on auditor’s report or financial statements</td>
<td>418</td>
<td>35.0</td>
<td>392</td>
</tr>
<tr>
<td>Covenants requiring audited financial statements</td>
<td>773</td>
<td>64.7</td>
<td>697</td>
</tr>
<tr>
<td>Firms without covenants requiring financial statements</td>
<td>421</td>
<td>35.3</td>
<td>392</td>
</tr>
<tr>
<td>Total</td>
<td>1,194</td>
<td>100.0</td>
<td>1,089</td>
</tr>
</tbody>
</table>

(continued on next page)
Panel A shows the frequency with which the auditor cites certain reasons for issuing the GCAR in the audit report (for the 10-K Disclosers Sample) or the press release (for the Early Disclosers Sample). The percentage is based on the sample size. Since multiple reasons can be cited in a GCAR, the aggregate of the frequencies exceeds the sample size. Panel B shows the frequency with which debt covenants require firms to prepare audited financial statements as well as the frequencies of restrictions on the audit report.
what can be ascertained from the financial statements and is unlikely to convey new information to investors. In contrast, if the auditor indicates that the firm is having problems related to its financing, the disclosure may be incrementally informative to investors. Operating problems and other specific reasons cited by auditors may also be news to some investors, but in general we expect that these will already be known to the market. We focus on financing problems in our analysis.

**Debt Covenants and GCARs**

In order to study the contracting consequences of the GCAR, we focus on debt covenants. We search the Dealscan database and the material contracts exhibit in 10-K filings, using Lexis/Nexis to identify covenants related to the GCAR. Table 4, Panel B reports the results. We are unable to find any restrictive covenants related to financial statements or the auditor’s report for 421 firms in the full sample.\(^{21}\) In the remaining 773 instances, the firm is required to submit timely audited financial statements to creditors.

Of the firms that are required to provide audited financial statements, 193 firms are subject to a requirement that the audit report should not be qualified or modified for going concern reasons. In 92 additional cases, the requirement is for an “unqualified” audit report. Since a GCAR is an unqualified audit report according to auditing standards, we do not view these 92 covenants as restricting GCARs. Covenants in the remaining 488 firms require timely audited financial statements, but impose no restrictions on the audit report. Some of these firms have special wording on the financial statements: 21 firms require that the financial statements be prepared on a going concern basis; 49 firms have other wording with respect to the quality of financial statements (e.g., “presents fairly,” “fair and accurate,” or “in good faith”).

In our analysis, we classify only the 193 firms that are required to present an audit report that is not modified for going concern reasons as having a restrictive covenant prohibiting the GCAR. Descriptive statistics (untabulated) show that these firms tend to be larger (mean assets = $272.3 million) than the other firms in the sample (mean assets = $148.6 million) and to have lower levels of losses (mean return on assets = -0.664, as compared to -0.857). In addition, they are much more likely to have Big 4 auditors (82.3 percent versus 65.4 percent).

Table 4, Panel B also breaks down the debt covenant requirement separately for the 10-K Disclosers and the Early Disclosers samples. A higher percentage of the early disclosing firms (72.4 percent versus 64.0 percent) have covenants that require the firm to prepare audited financial statements, and a substantially higher percentage (34.3 percent against 14.4 percent) have covenants that restrict the firm from getting a GCAR.

**Multivariate Analyses**

We use OLS regressions to test our hypotheses related to the informativeness of GCARs. We begin by controlling for several additional variables that could explain the investor reaction on the event date. We estimate the following model:

\[
CAR = \alpha + \beta_1 LMValue + \beta_2 EBIT + \beta_3 \delta Income + \beta_4 CFOPS + \beta_5 Zscore + \beta_6 ExitValue + \beta_7 LateFiler + \epsilon. \tag{1}
\]

The event date is the GCAR disclosure date. The dependent variable (\(CAR\)) measures the cumu-

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\(^{21}\) Using Lexis-Nexis, we search Exhibit 10 (material contracts) of 10-K filings for all companies in the sample starting in 1993. We expect to detect covenants in any debt taken in 1993 or later. However, it is possible that some firms in our sample had debt prior to 1993 that included covenants related to financial statements, and that we fail to detect these firms. These firms are misclassified in the analysis, and the potential misclassification biases against our finding significant results in tests for GCCovenant.
lative size-adjusted excess return over the three days beginning with the event date, which is the date the GCAR is first announced. The independent variables LMValue, EBIT, δIncome, CFOPS, Zscore, and ExitValue capture aspects of financial performance or condition that may explain the market’s reaction to GCAR-accompanying disclosures. LateFiler is an additional control variable that may explain the market’s reaction in the event window. Consistent with H1, we expect a negative intercept, which would indicate that the market reacts negatively to the GCAR even after controlling for contemporaneous disclosures of financial condition.

LMValue, the natural log of the market value of equity, is a proxy for firm size, and is measured at the end of the fiscal year for which the firm receives a GCAR, that is, several weeks before the GCAR is announced. This variable controls for size effects not fully captured by our use of size-adjusted returns. We expect firm size to proxy for the firm’s information environment. Since larger firms are likely to have richer information environments, we would expect less surprise associated with their GCAR disclosures, resulting in a positive coefficient for LMValue. EBIT is the firm’s earnings before interest and taxes, scaled by total assets, less the industry mean; δIncome is the change in net income scaled by total assets; CFOPS is cash flow from operations scaled by total assets. EBIT and CFOPS are measured using annual numbers for the period for which the GCAR is issued, while δIncome is the change in net income from the previous year to the GCAR year.22 Zscore is a measure of financial distress, computed using the Zmijewski (1984) distress score metric.23 In general, we expect the dependent variable to be positively associated with financial performance, so coefficients for EBIT, δIncome, and CFOPS should be positive and the coefficient for Zscore should be negative.

ExitValue represents the exit value of assets, computed according to the Berger et al. (1996) formula, scaled by the market value of equity. ExitValue is measured at the end of the fiscal year for which the GCAR was issued.24 We expect investors to revise the probability of bankruptcy upward in highly distressed companies and consequently to place greater weight on the exit value (e.g., Barth et al. 1998; Collins et al. 1999). As a result, \( \beta_0 \) should be positive.

LateFiler is a dichotomous variable identifying firms that file the 10-K after the SEC-specified filing date. LateFiler is assigned a value of 1 if the firm’s 10-K filing is more than five days late.25 Late filing companies are known to be poorer performers (e.g., Alford et al. 1994). If the firm files a late 10-K, then the market will likely anticipate that the financial statements contain bad news, and perhaps even that the audit process has been extended because a GCAR is being contemplated. As a result, some of the bad news would already have been impounded in the stock price during the period of the delay, resulting in a less adverse reaction to the 10-K filing. We would then expect \( \beta_6 \) to be positive. We drop LateFiler in estimating the model for the Early Disclosers sample since the late filing has not yet happened at the event date for this sample.

We add five variables to Model (1) in our second specification. Three of these variables (CitedDebt, GCCovenant, and InstOwn) allow us to test H2, H3, and H4, respectively.

---

22 Some year-end values may not be available to investors on the event date for the Early Disclosers sample. Still, we use year-end values for the Early Disclosers firms because a substantial majority of the press releases disclosing the GCAR early also provide annual earnings and balance sheet data.

23 The Zmijewski (1984) model includes three variables: return on assets, debt/assets, and the current ratio.

24 Berger et al. (1996) derive the following formula: Exit Value = 1.0 * Cash + 1.0 * Marketable Securities + 0.72 * Receivables + 0.55 * Inventory + 0.54 * Fixed Assets - 1.0 * Payables - 1.0 * Total Debt. Like Berger et al. (1996) and Collins et al. (1999), we replace negative estimated values with zero, since a negative exit value has no economic meaning for a limited liability company.

25 Until 2002, all firms were expected to file their 10-K reports within 90 days from the fiscal year-end. Starting from December 15, 2002, this period was shortened to five days for accelerated filers (mainly firms with common equity float exceeding $75 million). In 2006, the filing period was shortened further for large firms.

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\[ \text{CAR} = \alpha + \beta_1 \text{LMValue} + \beta_2 \text{EBIT} + \beta_3 \text{Income} + \beta_4 \text{CFOPS} + \beta_5 \text{Zscore} + \beta_6 \text{ExitValue} + \beta_7 \text{LateFiler} + \beta_8 \text{Big4} + \beta_9 \text{CitedDebt} + \beta_{10} \text{FSCovenant} + \beta_{11} \text{GCCovenant} + \beta_{12} \text{InstOwn} + \epsilon. \]  

We include Big4 (1 if the firm employs a Big 4 auditor, and 0 otherwise) because prior studies have shown that investors view Big 4 auditors as being more credible than smaller auditors. For example, Geiger and Rama (2006) find that Big 4-issued audit reports are more accurate in bankruptcy prediction (that is, there are fewer Type I and Type II errors) than reports issued by smaller auditing firms. It is plausible that investors’ reactions to the GCAR depend upon the credibility of the issuing auditor. Thus, investors may see it as more likely that a firm will go bankrupt if it receives a GCAR issued by a Big 4 auditor, leading to a more adverse market reaction for Big 4-issued GCARs.

CitedDebt represents the reason for the GCAR cited in the audit report. CitedDebt equals 1 if the auditor attributes the GCAR to a financing problem and 0 otherwise. A negative coefficient will support H2, indicating that investors react more adversely to GCARs issued because of financing problems.

FSCovenant and GCCovenant represent financial statement-related covenants. FSCovenant equals 1 if the firm has lending agreements that require timely audited financial statements (and 0 otherwise). GCCovenant is coded as 1 if a covenant specifies that the firm should not receive a GCAR (and 0 otherwise). Although we do not have a hypothesis related to FSCovenant, we expect the coefficient for FSCovenant to be negative. Lenders requiring audited financial statements are likely to be stricter than lenders that do not require audited statements. A negative coefficient for GCCovenant would indicate that firms for which the GCAR violates a covenant experience an even more negative investor reaction than firms whose lenders just require financial statements, supporting H3.

InstOwn indicates the percentage of outstanding common stock held by institutions in aggregate. InstOwn indicates the level of institutional holdings at the calendar quarter-end preceding the calendar quarter in which the GCAR is announced. Following H4, we expect institutional investors to react more strongly to a GCAR than individual investors. The coefficient for InstOwn should be negative. A positive coefficient would be consistent with the information advantage argument dominating the investor sophistication argument.

We estimate Models (1) and (2) on the Early Disclosers sample (105 firms) and the 10-K Disclosers sample (1,089 firms). Table 5 reports the regression results. We first discuss the results for the 10-K Disclosers sample. The intercept in Model (1), which includes only variables

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26 We refer to the tier of largest auditors as the Big 4 in this study. The tier includes six firms in the initial years of the sample until the 1998 merger between Price Waterhouse and Coopers & Lybrand, and then five firms until the breakup of Arthur Andersen in 2002.

27 Note that only firms that are required to present audited financial statements to lenders can have the additional covenant prohibiting a GCAR. As Table 4, Panel B shows, there are 773 firms that are required by lenders to prepare audited financial statements (i.e., FSCovenant = 1). Of these, 193 firms are required to have audit reports without a GCAR (i.e., GCCovenant = 1), whereas 580 firms are not (i.e., GCCovenant = 0).

28 We winsorize all continuous independent variables used in this regression (and in the other regressions used in this paper) at the 1st and 99th percentiles. The results reported in the tables reflect this winsorizing procedure. In robustness tests, we use alternate winsorizing rules (0.5th and 99.5th percentiles; 2nd and 98th percentiles) and obtain similar results. We also identify observations that have a large effect on regression coefficient estimates (following Belsley et al., 1980) and delete the observations (1 percent of the sample) with the largest effect. The only notable difference in the results is a decline in the significance level for FSCovenant (\(p = 0.06\)).

29 We test for multicollinearity in all the regressions we estimate in this study, using variance inflation factors. Variance inflation factors are well within acceptable levels, the highest value being 2.96.
## TABLE 5
OLS Regressions on the Market Reaction to the GCAR Disclosure

Model 1: \[ \text{CAR} = \alpha + \beta_1 \text{LMValue} + \beta_2 \text{EBIT} + \beta_3 \text{Income} + \beta_4 \text{CFOPS} + \beta_5 \text{Zscore} + \beta_6 \text{ExitValue} + \beta_7 \text{LateFiler} + \varepsilon \]

Model 2: \[ \text{CAR} = \alpha + \beta_1 \text{LMValue} + \beta_2 \text{EBIT} + \beta_3 \text{Income} + \beta_4 \text{CFOPS} + \beta_5 \text{Zscore} + \beta_6 \text{ExitValue} + \beta_7 \text{LateFiler} + \beta_8 \text{Big4} + \beta_9 \text{CitedDebt} + \beta_{10} \text{FSCovenant} + \beta_{11} \text{GCCovenant} + \beta_{12} \text{InstOwn} + \varepsilon \]

<table>
<thead>
<tr>
<th>Variable</th>
<th>Exp. Sign</th>
<th>Model (1)</th>
<th>Model (2)</th>
<th>Model (1)</th>
<th>Model (2)</th>
<th>Model (1)</th>
<th>Model (2)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Coeff.</td>
<td>t-value</td>
<td>Coeff.</td>
<td>t-value</td>
<td>Coeff.</td>
<td>t-value</td>
</tr>
<tr>
<td>Intercept</td>
<td></td>
<td>0.0483</td>
<td>-2.94**</td>
<td>-0.0119</td>
<td>-0.65</td>
<td>-0.2237</td>
<td>-3.91**</td>
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<tr>
<td>LMValue</td>
<td>+</td>
<td>0.0042</td>
<td>-0.86</td>
<td>0.0061</td>
<td>1.33</td>
<td>0.0311</td>
<td>2.15*</td>
</tr>
<tr>
<td>EBIT</td>
<td>+</td>
<td>0.0134</td>
<td>-1.11</td>
<td>0.0038</td>
<td>-0.32</td>
<td>0.0312</td>
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<tr>
<td>Income</td>
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<td>1.20</td>
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<td>1.16</td>
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<td>3.04**</td>
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<td>+</td>
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<td>0.0018</td>
<td>-0.12</td>
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<tr>
<td>ExitValue</td>
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<td>0.048</td>
<td>0.070</td>
<td>0.123</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(continued on next page)
TABLE 5 (continued)

*, ** p < 0.05, and p < 0.01, respectively. Significance levels are for two-tailed t-tests.
The dependent variable is the size-adjusted three-day \((0, +2)\) cumulative excess return related to the GCAR disclosure date (for 10-K Disclosers, the 10-K filing date; for Early Disclosers, the GCAR-disclosing press release date).

Variable Definitions:

\(LMValue\) = natural log of market value of equity in millions;
\(EBIT\) = industry-adjusted earnings before income taxes and interest, scaled by assets;
\(\Delta\)\(Income\) = change in net income, scaled by assets;
\(CFOPS\) = cash flow from operations/total assets;
\(Zscore\) = a composite measure of financial distress based upon Zmijewski (1984);
\(ExitValue\) = the firm’s exit value, computed based upon Berger et al. (1996);
\(LateFiler\) = 1 if the firm’s 10-K was filed five days or more after the SEC statutory filing date, and 0 otherwise;
\(Big4\) = 1 if audited by a Big 4 audit firm or one of its predecessors, and 0 otherwise;
\(CitedDebt\) = 1 if the GCAR cited a financing issue, and 0 otherwise for the 10-K sample, and 1 if the press release attributed the GCAR to a financing issue, and 0 otherwise for the Early Disclosers sample;
\(FSCovenant\) = 1 if the firm has a debt covenant that requires the client to present audited financial statements, and 0 otherwise;
\(GCCovenant\) = 1 if the firm has a debt covenant that requires the client to present an auditor’s report without an explanatory paragraph noting a going concern limitation, and 0 otherwise; and
\(InstOwn\) = the fraction of outstanding common stock owned by institutional investors.
that control for financial information that may explain the market reaction on the event date, is significantly negative, as expected under H1. None of the control variables are significant.

The intercept is not significant with the inclusion of the additional variables in Model (2). The control variables again are not significant, as in Model (1). CitedDebt has a negative and significant coefficient, suggesting that GCARs that cite financing problems induce a more negative reaction. This finding supports H2. FSCovenant has a significantly negative coefficient, indicating that firms with covenants requiring audited financial statements experience a more negative reaction do firms without such a requirement, but, consistent with H3, the sign and significance of the GCCovenant coefficient point to an even more negative reaction if the firm’s audit report is required to be free of a GCAR. Finally, consistent with H4, the coefficient for InstOwn is negative and significant, showing that the abnormal stock returns in the event window are more negative in firms with higher levels of institutional holdings.

We estimate Models (1) and (2) on the sample of 105 Early Disclosers firms, as well. We make two changes to the models for this sample. LateFiler is not included, since we measure returns around the press release date and not the 10-K date. CitedDebt is defined differently for this sample, since the actual GCAR is not visible to investors at the time of the press release. For early disclosers, we define CitedDebt as 1 (and 0 otherwise) if managers attribute the GCAR to a financing problem when they disclose the impending GCAR in the press release.

The regression results show small differences from the results for the larger sample of firms that disclosed the GCAR only in the 10-K. LMValue (firm size) and ΔIncome (the change in profitability) have positive and significant coefficients. Among the variables of interest, GCCovenant has a significant coefficient, even in the presence of a significant coefficient for FSCovenant, and CitedDebt and InstOwn are also significant in the expected direction.

Overall, the analysis of returns on the first announcement of the GCAR supports the position that the GCAR is informative to investors. We observe negative returns on the announcement, and these returns continue to be negative after controlling for the firm’s financial performance (H1). Returns are more negative for firms where the auditor cites financing problems as being the reason for the GCAR (H2) and for firms that violate a debt covenant by receiving a GCAR (H3). Also, returns are increasingly negative as the level of institutional holdings increases (H4).

**Controlling for Earnings Surprise**

If firms make an early disclosure of the GCAR and the disclosure is included in an earnings announcement, then investors will likely react to the earnings surprise in the announcement window. If firms do not make an early earnings announcement, then investors may react to the earnings surprise in the 10-K event window. It is important, then, to control for earnings surprise in our analysis. The availability of earnings forecast data proves to be a major constraint. Of the 1,194 firms in our sample, we are able to obtain earnings forecast data from I/B/E/S for only 497 firms. We re-estimate Models (1) and (2) on firms with earnings forecast data (“partial sample”) to see whether the results in Table 5 hold after controlling for earnings surprise.

Surprise is computed as the actual EPS less the forecasted EPS, scaled by the stock price at the beginning of the fourth quarter, where the forecasted EPS is the last consensus analyst forecast reported on I/B/E/S before the GCAR disclosure. As Table 2 shows, the majority of firms in the partial sample have negative earnings surprises. Untabulated comparisons of descriptive statistics show that firms in the partial sample are larger than firms in the full sample (mean total assets = $267.5 million; mean market value of equity = $74.5 million), but are similarly distressed. Consistent with the larger size, firms in the partial sample are more likely to engage Big 4 auditors (87.1 percent). They have a higher frequency of covenants restricting the firm from presenting financial statements with a GCAR (23.0 percent). The highest frequency of GCARs is observed in the year 2000, as for firms in the full sample.
The cumulative size-adjusted excess return in the three-day window (0, +2) commencing with the event date for firms in the partial sample is −8.37 percent (compared with −6.28 percent for the firms in the full sample). 72 firms with forecast data issue a press release disclosing the GCAR at least three days prior to the 10-K filing date. The cumulative three-day return for these firms is −14.34 percent (as compared to −14.64 percent for 105 early disclosers in the full sample).

We re-estimate the regressions in Table 5, adding Surprise to Models (1) and (2) (labeled Models 1a and 2a, respectively). Table 6 presents the regression results using the partial sample. The coefficient for Surprise is significant in every estimation in the expected positive direction and the R² increases materially. The results are otherwise very similar to those reported in Table 5, the main difference being that the control variables LMValue and δIncome are not significant for the Early Disclosers sample. The intercept is significant in Model (1)a in each case, showing a negative reaction to the GCAR announcement even after controlling for information on financial performance that may become available at the time. However, consistent with Table 5, the intercept is not significant in either estimation of Model (2)a. CitedDebt, FSCovenant, GCCovenant, and InstOwn have significant negative coefficients in Model (2)a, both for the 10-K Disclosers sample and the Early Disclosers sample.

Effect of Institutional Holdings

The results in Tables 5 and 6 suggest that the level of institutional ownership is important in explaining investors’ reaction to the GCAR disclosure. We explore the issue further in this section by partitioning the sample into two groups based on the level of institutional holdings. We do a median split and form two subsamples: “low institutional ownership” firms and “high institutional ownership” firms. Although we use the label “high institutional ownership” to describe the group with larger institutional holdings, the median for the sample as a whole is only 7.0 percent (as reported in Table 2), so the threshold to enter the high institutional ownership group is relatively low by contemporary levels of institutional investment. Firms in the low institutional ownership subsample are generally smaller than firms in the large institutional ownership subsample. Low institutional holdings firms are more likely to be late in their 10-K filing and to have non-Big 4 auditors (untabulated).

When we study the daily size-adjusted excess returns around the event date for the two subsamples, it is clear that firms with high institutional holdings drive the results in Table 3. Table 7 shows the daily excess returns for the two subsamples. A significant mean excess return is evident only on Day +1 for firms with low institutional holdings, and a disproportionate number of firms in this group report a significant negative excess return only on that day. The three-day cumulative excess return, beginning with the event day, is −3.05 percent. In contrast, significant negative returns are observed on Day 0, Day +1, and Day +2 for firms with high institutional holdings. Significantly more firms report a negative excess return on each of these days, compared to the 21-day average. The three-day cumulative excess return is −9.53 percent.

We estimate Models (1) and (2) separately for the two subsamples, including both 10-K Disclosers and Early Disclosers, with the event date being the date of the first disclosure. The results are reported in Table 8, showing that the intercept is significantly negative in both the low and high institutional ownership subsamples. That is, after controlling for other financial information, there is a negative return attributable to the GCAR.

When we estimate Model (2) on the low institutional holdings subsample, none of the independent variables are significant. However, when we estimate Model (2) on the high institutional ownership subsample, the coefficients for the variables of interest (CitedDebt, GCCovenant, and InstOwn) are all statistically significant, as in Table 5, consistent with H2, H3, and H4, respectively. FSCovenant has a significantly negative coefficient, as well. The evidence suggests that
**TABLE 6**

**OLS Regressions on the Market Reaction to the GCAR Disclosure**
(Controlling for Earnings Surprise)

Model 1a: \[
\text{CAR} = \alpha + \beta_1 \text{LMValue} + \beta_2 \text{EBIT} + \beta_3 \delta \text{Income} + \beta_4 \text{CFOPS} + \beta_5 \text{Zscore} + \beta_6 \text{ExitValue} + \beta_7 \text{LateFiler} + \beta_8 \text{Surprise} + \varepsilon
\]

Model 2a: \[
\text{CAR} = \alpha + \beta_1 \text{LMValue} + \beta_2 \text{EBIT} + \beta_3 \delta \text{Income} + \beta_4 \text{CFOPS} + \beta_5 \text{Zscore} + \beta_6 \text{ExitValue} + \beta_7 \text{LateFiler} + \beta_8 \text{Big4} + \beta_9 \text{CitedDebt} + \beta_{10} \text{FSCovenant} + \beta_{11} \text{GCCovenant} + \beta_{12} \text{InstOwn} + \beta_8 \text{Surprise} + \varepsilon
\]

<table>
<thead>
<tr>
<th>Variable</th>
<th>Exp. Sig.</th>
<th>10-K Disclosers Sample (n = 425)</th>
<th>Early Disclosers Sample (n = 72)</th>
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</thead>
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<tr>
<td></td>
<td></td>
<td>Model (1)a</td>
<td>Model (2)a</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Coeff. t-value</td>
<td>Coeff. t-value</td>
</tr>
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<td>LateFiler</td>
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<tr>
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<tr>
<td>FSCovenant</td>
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<tr>
<td>GCCovenant</td>
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<td>— —</td>
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<tr>
<td>InstOwn</td>
<td>-</td>
<td>— —</td>
<td>— —</td>
</tr>
<tr>
<td>Surprise</td>
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<td>0.0059 2.62**</td>
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<tr>
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<td>0.033 0.13</td>
<td>0.103 0.168</td>
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</table>
TABLE 6 (continued)

* * * p < 0.05, and p < 0.01, respectively. Significance levels are for two-tailed t-tests.

The dependent variable is the size-adjusted three-day (0, +2) cumulative excess return related to the GCAR disclosure date (for 10-K Disclosers, the 10-K filing date; for Early Disclosers, the GCAR-disclosing press release date).

Variable Definitions:

- **LMVal** is the natural log of market value of equity in millions;
- **EBIT** is industry-adjusted earnings before income taxes and interest, scaled by assets;
- **Income** is change in net income, scaled by assets;
- **CFOPS** is cash flow from operations/total assets;
- **Zscore** is a composite measure of financial distress based upon Zmijewski (1984);
- **ExitValue** is the firm’s exit value, computed based upon Berger et al. (1996);
- **LateFiler** is 1 if the firm’s 10-K was filed five days or more after the SEC statutory filing date, and 0 otherwise;
- **Big4** is 1 if audited by a Big 4 audit firm or one of its predecessors, and 0 otherwise;
- **CitedDebt** is 1 if the GCAR cited a financing issue, and 0 otherwise for the 10-K sample, and 1 if the press release attributed the GCAR to a financing issue, and 0 otherwise for the Early Disclosers sample;
- **FSCovenant** is 1 if the firm has a debt covenant that requires the client to present audited financial statements, and 0 otherwise;
- **GCCovenant** is 1 if the firm has a debt covenant that requires the client to present an auditor’s report without an explanatory paragraph noting a going concern limitation, and 0 otherwise;
- **InstOwn** is the fraction of outstanding common stock owned by institutional investors; and
- **Surprise** is (actual EPS – mean forecasted EPS)/stock price at beginning of the fourth quarter.
**TABLE 7**

Daily Excess Returns for Low and High Institutional Ownership Subsamples

| Day | Low Institutional Ownership (n = 597) | | | High Institutional Ownership (n = 597) |
|-----|-------------------------------------|---------------------------------|-------------------------------------|
|     | Mean | Std. Dev. | Median | % Negative | Mean | Std. Dev. | Median | % Negative |
| −5  | 0.0043 | 0.1064 | −0.0013 | 51.4% | 0.0075 | 0.1100 | −0.0025 | 52.8% |
| −4  | 0.0010 | 0.1087 | −0.0003 | 50.4% | 0.0036 | 0.0966 | −0.0007 | 52.6% |
| −3  | −0.0045 | 0.1132 | −0.0016 | 51.9% | 0.0011 | 0.0991 | −0.0009 | 51.9% |
| −2  | −0.0030 | 0.1098 | −0.0009 | 50.8% | 0.0038 | 0.1521 | −0.0025 | 53.8% |
| −1  | 0.0013 | 0.1257 | −0.0021 | 52.9% | −0.0066 | 0.1061 | −0.00020 | 52.6% |
| 0   | −0.0086 | 0.1317 | −0.0055 | 56.6% | −0.0215** | 0.1281 | −0.0103 | 60.7%** |
| 1   | −0.0158** | 0.1333 | −0.0080 | 59.0%* | −0.0540** | 0.1346 | −0.0296 | 66.3%** |
| 2   | −0.0061 | 0.1234 | −0.0049 | 57.1% | −0.0198** | 0.1196 | −0.0082 | 59.1%** |
| 3   | 0.0024 | 0.1142 | −0.0021 | 51.8% | 0.0060 | 0.1247 | −0.0012 | 54.9% |
| 4   | −0.0022 | 0.1331 | −0.0022 | 54.6% | 0.0120 | 0.1255 | 0.0001 | 50.2% |
| 5   | 0.0020 | 0.1151 | −0.0028 | 51.4% | −0.0012 | 0.1117 | −0.0043 | 54.2% |

*, ** p < 0.05, and p < 0.01, respectively, two-tailed.

The event date is the GCAR disclosure date (the earlier of a GCAR-disclosing press release or the 10-K filing).

The table presents statistics for the daily size-adjusted excess return. Significance levels are for t-tests for differences in the mean daily excess return from zero or for Chi-square tests for differences in the percentage of negative excess returns in a given day from the average for the 21 days around the event date for sample firms.
### TABLE 8
OLS Regressions on the Market Reaction to the GCAR Disclosure for Low and High Institutional Ownership Subsamples

**Model 1:** 
\[ CAR = \alpha + \beta_1LMValue + \beta_2EBIT + \beta_3\deltaIncome + \beta_4CFOPS + \beta_5Zscore + \beta_6ExitValue + \beta_7LateFiler + \epsilon \]

**Model 2:** 
\[ CAR = \alpha + \beta_1LMValue + \beta_2EBIT + \beta_3\deltaIncome + \beta_4CFOPS + \beta_5Zscore + \beta_6ExitValue + \beta_7LateFiler + \beta_8Big4 + \beta_9CitedDebt + \beta_{10}FSCovenant + \beta_{11}GCCovenant + \beta_{12}InstOwn + \epsilon \]

<table>
<thead>
<tr>
<th>Variable</th>
<th>Exp. Sign</th>
<th>Model (1)</th>
<th>t-value</th>
<th>Coeff.</th>
<th>Model (2)</th>
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<td>\deltaIncome</td>
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<td>1.97**</td>
<td>0.0182</td>
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<tr>
<td>CFOPS</td>
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<td>—</td>
<td>—</td>
<td>-0.1857</td>
<td>-3.62**</td>
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*(continued on next page)*
TABLE 8 (continued)

* * p < 0.05, and p < 0.01, respectively. Significance levels are for two-tailed t-tests.

The dependent variable is the size-adjusted three-day (0, +2) cumulative excess return related to the GCAR disclosure date (the earlier of a GCAR-disclosing press release or the 10-K filing).

Variable Definitions:

- **LMValue**: natural log of market value of equity in millions;
- **EBIT**: industry-adjusted earnings before income taxes and interest, scaled by assets;
- **△Income**: change in net income, scaled by assets;
- **CFOPS**: cash flow from operations/total assets;
- **Zscore**: a composite measure of financial distress based upon Zmijewski (1984);
- **ExitValue**: the firm’s exit value, computed based upon Berger et al. (1996);
- **LateFiler**: 1 if the firm’s 10-K was filed five days or more after the SEC statutory filing date, and 0 otherwise;
- **Big4**: 1 if audited by a Big 4 audit firm or one of its predecessors, and 0 otherwise;
- **CitedDebt**: 1 if the GCAR cited a financing issue, and 0 otherwise;
- **FSCovenant**: 1 if the firm has a debt covenant that requires the client to present audited financial statements, and 0 otherwise;
- **GCCovenant**: 1 if the firm has a debt covenant that requires the client to present an auditor’s report without an explanatory paragraph noting a going concern limitation, and 0 otherwise; and
- **InstOwn**: the fraction of outstanding common stock owned by institutional investors.
sophisticated institutional investors may be reacting to the auditor’s assessment of the firms’ financing problems, as well as to additional costs imposed because the GCAR violates a debt covenant. Interestingly, the coefficient for Big4 is negative and significant. Recall that this coefficient is not significant when the regression is estimated on the full sample in Table 5. GCARs issued by Big 4 auditors are likely viewed as more adverse than GCARs issued by non-Big 4 auditors in the high institutional ownership subsample.

The results reported in Table 8 for the low institutional holdings sample indicate that there is some negative reaction to the GCAR announcement at low levels of institutional ownership. These results are sensitive to the cutoff employed to determine low holdings. When low institutional holdings are defined as the bottom tertile of the sample (<1.5 percent of the firm’s outstanding shares) or the bottom quartile (<1.2 percent), the intercept is not significant (p = 0.26 and p = 0.20, respectively), indicating that there is no reaction to the GCAR in firms with such low levels of institutional ownership. Overall, these results suggest that institutional investors may be largely responsible for the negative reaction to GCARs that we observe.

**Institutional Holdings before and after GCAR**

The analysis in the preceding subsection shows that the market reaction to the GCAR is associated with the level of institutional holdings in the firm. The next analysis provides additional evidence that the GCAR affects institutional holders’ investment decisions. This analysis follows the work of Kausar et al. (2006), who find a decline in net institutional holdings in firms that receive a GCAR. We extend Kausar et al.’s (2006) study to determine whether the decline in institutional holdings depends upon the characteristics of the GCAR. Recall that institutional holdings data are obtained originally from quarterly 13F filings. We compare the institutional holdings for the firm at two points in time: the quarter-end that precedes the calendar quarter in which the GCAR is disclosed, and the end of the first full quarter after the GCAR is disclosed. Table 9 shows that the mean institutional ownership drops from 13.3 percent in the quarter-end preceding the GCAR to 8.6 percent at the end of the quarter following the GCAR. The decline is statistically significant, and confirms the result reported by Kausar et al. (2006).

We partition the sample by whether the GCAR cites a financing problem. The 424 firms that are issued GCARs citing a financing problem have a higher level of institutional ownership before the GCAR, on average (14.7 percent, versus 12.5 percent for firms where the GCAR does not cite a financing problem), but they experience a significantly greater decline in institutional ownership. We partition the sample also according to whether the firm has a covenant restricting the GCAR. The level of institutional ownership for the firms in this group (mean = 21.2 percent) is initially much higher than for firms without such a covenant (mean = 11.8 percent). There is no statistical difference in the level of institutional ownership following the GCAR because of a steep drop in the institutional ownership in firms where the GCAR violates a covenant.

In untabulated results, we also estimate a regression using the change in institutional ownership as the dependent variable and GCCovenant (the presence of a covenant restricting the GCAR) and CitedDebt (the citing of financing problems in the GCAR) as the main independent variables. We control for size (LMValue), financial performance (EBIT, Income, CFOPS, Zscore, and ExitValue), auditor type (Big4), and whether there is a covenant requiring financial statements (FS-Covenant). Of the variables of interest, only the coefficient for GCCovenant is statistically significant. It has a negative sign, consistent with the univariate analysis in Table 9.

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30 For example, for a firm disclosing a GCAR on March 15, 2005, we would study the change in institutional ownership from December 31, 2004 to June 30, 2005.
These results are driven by firms with higher levels of institutional ownership. Table 9 shows that when we do a median split of the sample along institutional ownership, as in Tables 7 and 8, there is little change in the mean institutional ownership following the GCAR in the low institutional ownership subsample, but a substantial drop (from 24.4 percent to 14.1 percent) in the high ownership subsample. We estimate a regression with the change in institutional holdings as the dependent variable in each subsample. Results for the high institutional ownership subsample are similar to the results reported for the sample as a whole, but in the low institutional subsample neither GCCovenant nor CitedDebt have significant coefficients ($p = 0.48$ and $0.60$, respectively).

Table 9 does not directly test institutional selling in response to the GCAR, because the change in institutional ownership levels around the time the GCAR is issued does not necessarily mean that institutional owners reacted to the GCAR. Still, the evidence is consistent with institutions being net sellers of stock in GCAR-receiving firms, and in particular, in firms receiving GCARs that cite financing problems and in firms that have a debt covenant that restricts them from receiving a GCAR.

**IV. ADDITIONAL ANALYSES AND ROBUSTNESS TESTS**

**GCAR Type I Errors**

It has long been speculated that a GCAR may increase the likelihood of bankruptcy. Prior

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### TABLE 9

Changes in Institutional Ownership Following GCAR

<table>
<thead>
<tr>
<th>Reason Cited for GCAR</th>
<th>n</th>
<th>Mean Institutional Ownership before GCAR</th>
<th>Mean Institutional Ownership after GCAR</th>
<th>Difference</th>
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</tr>
<tr>
<td>t-statistic</td>
<td></td>
<td>5.68 **</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reasons Cited for GCAR</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>GCARs citing financing problems</td>
<td>424</td>
<td>0.147</td>
<td>0.084</td>
<td>−0.063</td>
</tr>
<tr>
<td>GCARs not citing financing problems</td>
<td>770</td>
<td>0.125</td>
<td>0.088</td>
<td>−0.037</td>
</tr>
<tr>
<td>Test of differences</td>
<td>1,194</td>
<td>2.33 *</td>
<td>0.50</td>
<td>3.13 **</td>
</tr>
<tr>
<td>Covenant Restricting the GCAR</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Firms with covenant restricting GCAR</td>
<td>193</td>
<td>0.212</td>
<td>0.095</td>
<td>−0.117</td>
</tr>
<tr>
<td>Firms without covenant restricting GCAR</td>
<td>1,001</td>
<td>0.118</td>
<td>0.085</td>
<td>−0.033</td>
</tr>
<tr>
<td>Test of differences</td>
<td>1,194</td>
<td>5.70 **</td>
<td>0.79</td>
<td>5.66 **</td>
</tr>
<tr>
<td>Institutional Ownership</td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>Firms with low institutional ownership</td>
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<td>0.021</td>
<td>0.032</td>
<td>0.011</td>
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<tr>
<td>Firms with high institutional ownership</td>
<td>597</td>
<td>0.244</td>
<td>0.141</td>
<td>−0.103</td>
</tr>
<tr>
<td>Test of differences</td>
<td>1,194</td>
<td>34.50 **</td>
<td>14.83 **</td>
<td>15.37 **</td>
</tr>
</tbody>
</table>

*, ** $p < 0.05$, and $p < 0.01$, respectively, two-tailed.

The table shows the mean level of institutional ownership as a proportion of total common shares outstanding in firms before and after they are given a GCAR. t-statistics are for tests for differences in means before and after the GCAR in the case of the full sample, and for differences between subgroup means in other cases.
studies have referred to this as the “self-fulfilling prophecy” effect of the GCAR (e.g., Mutchler 1984; Louwers et al. 1999). Several studies have investigated the GCAR’s accuracy in predicting the likelihood that a firm will go bankrupt (e.g., Geiger and Rama 2006). We extend this literature by considering whether auditors are less likely to make Type I errors (issuing GCARs to firms that survive for more than one year) for GCARs with certain characteristics than for others. We conduct this analysis to rule out the possibility that the more adverse market reaction observed for GCARs citing financing problems and GCARs violating covenants is due to these firms having a greater likelihood of going bankrupt than other firms receiving GCARs.

We begin by determining the post-GCAR status of the companies in the sample. We find that 174 of the 1,194 firms file for bankruptcy (Chapter 7 or 11) at the federal or state level in the 12-month period following the date of the financial statements for which the auditor issued a GCAR, a Type I error rate of 85.4 percent. To determine whether Type I errors are lower for certain types of GCARs, we estimate a logistic model where the dependent variable, Bankrupt (1 if bankrupt, and 0 otherwise) indicates whether the firm goes bankrupt in the 12 months following the GCAR. CitedDebt and GCCovenant are the variables of interest in this analysis. We use FSCovenant to ensure that GCCovenant is not simply picking up firms with covenants requiring audited financial statements. As control variables we use LMValue, since larger firms may have greater ability to survive, EBIT, ΔIncome, CFOPS, Zscore, ExitValue, and LateFiler to represent financial condition, and Big4, since Big 4 auditors may have superior accuracy in issuing GCARs. The variables of interest are not significant (lowest p = 0.16).

Another potential adverse economic consequence a firm faces is delisting. As many as 467 of the 1,194 firms in our sample (39.1 percent) are delisted during the 12 months following the date of the financial statements carrying the GCAR. We test whether the likelihood of delisting depends upon the characteristics of the GCAR. To do this, we replace the dependent variable in the bankruptcy model described above with Delist, where Delist equals 1 if the firm is delisted from the stock exchange in the 12 months following the GCAR. Again, the GCAR-related variables do not have significant coefficients (lowest p = 0.24). The likelihood that a firm will go bankrupt or delist is not greater for firms with GCARs citing financing problems or firms with GCARs that violate debt covenants.

**Potentially Confounding Disclosures**

Given the nature of the firms in the sample and their financial condition at the time of the GCAR disclosure, it is plausible that the negative reaction we detect is related to other significant firm-specific events that are concurrently disclosed to investors. To rule out this potential explanation, we review all 8-K filings made by each firm in the sample during the period starting five days before the event date and ending five days after. We retain in the sample those firms that file 8-Ks, reproducing previously disseminated earnings or GCAR announcements, but drop 147 firms reporting other events. The principal events reported in the filings by omitted firms are financing issues, purchase or sale of assets, and manager or director changes. We re-estimate Models (1) and (2) on a sample that excludes these firms. The intercept is statistically significant in Model (1) for the 10-K Disclosers sample. The coefficients for the variables of interest in Model (2) are significant at previous levels, as shown in Table 5.

We also review the Early Disclosers sample to identify significant disclosures of other events. We identify 10 firms with significant events that were not previously disclosed (3 executive turnovers, 2 litigation events, 3 loan defaults, and 2 mergers). We delete these firms from the Early Disclosers sample and re-estimate regressions in Table 5 for the remaining 95 firms. The intercept is statistically significant in Model (1) and the coefficients for the variables of interest in Model (2) are significant at previous levels.
GCAR-Related Variables and Returns at Earnings Announcement

A potential concern is that the GCAR-related variables (GCCovenant and CitedDebt) may proxy for factors that are associated with the firm’s financial condition and that we have not adequately captured with our control variables. We address this concern by estimating Models (2) and 2a at another significant event date when the GCAR should not be relevant. The sample for this analysis consists of 349 firms in the full sample of firms (191 firms in the partial sample) that first announce the GCAR at the 10-K date, but that previously issue earnings announcements. The event date is the earnings announcement date. Since the GCAR is not known at this time, the GCAR-related variables should be associated with excess returns in the event window (0, +2) only if they are surrogates for financial distress. The only statistically significant coefficients when we estimate Models (2) and 2a are for the control variables representing size and earnings surprise (Model 2: LMValue; Model (2)a: LMValue and Surprise). It seems unlikely that GCCovenant and CitedDebt represent other factors associated with financial distress.

Additional Variables

Recall that we expect investors to react adversely to GCARs that cite financing problems. We do not expect the other commonly cited reasons (see Table 4, Panel A) to be incrementally informative because the cited circumstances are likely to be known to investors. Still, we individually test to see whether each reason is informative, using a regression in the form of Model (2). We do not find an incremental negative effect on returns for any reason except financing problems (lowest p = 0.13).

Table 4, Panel B indicates that there are 92 firms with covenants that require that the audit report be “unqualified.” We do not include these with the 195 firms carrying covenants that prohibit a GCAR in our main tests because auditing standards treat the GCAR as an unqualified audit report. However, it is possible that a lender that prohibits a qualified opinion intends to prohibit a GCAR, since the GCAR is sometimes referred to as a “going concern qualification.” When we add a variable to Model (2) to indicate whether the firm has a covenant requiring an unqualified report, the coefficient is not significant (p = 0.35), suggesting that investors do not react more adversely to the GCAR announcement if such a covenant is present.

We include several additional variables in Models (1) and (2) as potential explanatory variables for the event period returns. Restate incorporates adverse expectations that investors may have for restating firms. PreReturn captures pre-event returns and is used as a proxy for investors’ anticipation of the GCAR. We use Bankrupt since investors may make a distinction at the time of the GCAR announcement between firms that will imminently go bankrupt and those that will not (Blay and Geiger 2001). Similarly, Delist is included because investors may anticipate that additional costs will be borne by firms that are likely to be delisted. The coefficients for Restate, PreReturn, Bankrupt, and Delist are not significant at the thresholds we use in this paper in any of the model-sample combinations used in Table 5 (lowest p = 0.10 for Restate, in Model 2 for both samples). The variables of interest continue to be significant at the same levels as in Table 5.

In order to see whether there is a difference in the market reaction to the GCAR in the pre- and post-Regulation FD periods, we use a variable PostFD, coded as 1 for all GCARs with event dates following the effective date of Regulation FD. We also use interaction terms PostFD * CitedDebt, PostFD * GCCovenant, and PostFD * InstOwn. This analysis is motivated by the information advantage argument that suggests that in the period before Regulation FD, institu-

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Restate equals 1 if the firm reports a restatement in the 12 months preceding the event date, and 0 otherwise; PreReturn is measured as the stock return over the period starting from the end of the fiscal year for which the GCAR is obtained and culminating two days prior to the event date; Bankrupt is as defined earlier; and Delist is as defined earlier.
tional owners may react to the information in the GCAR before, rather than during, the event date because of access to predisclosure information. We re-estimate Models (1) and (2). The intercept in Model (1) and the independent variables of interest in Model (2) are significant at previous levels. The additional variable and interaction terms used are not significant (lowest p = 0.26), indicating there is no difference in the reaction of individual investors at the announcement date before and after Regulation FD.

Alternative Measurements of Variables
For 235 firms in the partial sample, there is no prior press release announcing earnings, and the 10-K provides the first news on earnings. For the remaining firms, there is a prior earnings release, and earnings are no longer a surprise. For these firms, Surprise arguably should be coded as 0. Treating Surprise as 0 for these firms does not change the statistical significance of Surprise or alter other results in Table 6.

Our tests use a five-day grace period for LateFiler. In robustness tests, we classify a firm as a late filer if it is one, two, three, or four days late in filing. We also use two alternative measures of financial distress to replace the Zmijewski (1984) distress metric: Altman’s Z-score (Altman 1968) and a metric based on the Hillegeist et al. (2004) financial distress model. Our results are robust to the use of these alternative measures (i.e., coefficients for the variables of interest continue to be significant at reported levels).

We repeat all our tests using buy-and-hold abnormal returns (BHAR) rather than cumulative abnormal returns (CAR) and obtain essentially similar results. The coefficients for the variables of interest are significant at reported levels with one exception: in Table 5, in the 10-K Disclosers sample, the coefficient for GCCovenant is significant at a lower level (p = 0.06) than reported previously. Since this is a short-window study, we choose to report CAR in the tables to be consistent with other short-window studies, particularly prior GCAR event studies.

V. CONCLUSIONS
There have been questions raised in the past about whether auditors should be required to make going concern judgments. One view has been that GCARs do not provide investors with new information, since investors can make going concern assessments adequately using other sources of information. Others have argued that the auditor’s access to private information regarding the client makes the GCAR informative. Prior research that attempts to ascertain the usefulness of the GCAR by studying the market reaction to the GCAR announcement provides mixed results. The sample in this study is substantially larger than samples used previously and covers many years. We find that investors react to the auditor’s assessment and adjust their valuations accordingly. In addition, we show that the market reaction to the GCAR depends on certain GCAR attributes. Mixed results in prior studies could be due to differences in sample composition with respect to the reasons cited by the auditor for the GCAR, the presence of covenants prohibiting the GCAR, and the level of institutional ownership.

Our results suggest that the informativeness of the GCAR depends upon its content. Auditors generally cite a reason for issuing the GCAR. Very often, the cited reason is the firm’s distressed financial condition, which may not add to what investors can already glean from the financial statements. We find that the reaction is more adverse for firms when the auditor attributes the GCAR to problems related to obtaining financing.

It has been widely speculated that GCARs may have a self-fulfilling prophecy effect; that is, the auditor’s decision to issue a GCAR results in firms finding it difficult to obtain capital and to carry on business as usual and, that as a consequence, the GCAR leads to failure. Our study shows one specific way in which the GCAR affects contracting costs. A significant number of firms have lending agreements that include covenants that specifically require that the firm not obtain a
GCAR. Consistent with other studies that find that investors are sensitive to the violation of debt covenants, investors react more negatively when the firm violates a covenant requiring GCAR-free financial statements. However, neither the auditor’s attribution of the GCAR to financing problems nor the violation of a covenant requiring GCAR-free financial statements increases the likelihood that the firm will go bankrupt or delist from the stock exchange, relative to other firms receiving GCARs. In reacting negatively to these two types of GCARs, investors are recognizing potential increases in the cost of obtaining capital rather than to imminent bankruptcy or delisting.

Finally, we find that the reaction to the GCAR is more negative when the level of institutional holdings in the firm is high. Interestingly, there is no reaction at all to the GCAR in firms with very low levels of institutional ownership. At higher levels of institutional ownership, the magnitude of negative reaction increases for firms where the GCAR cites financing problems and firms for which the GCAR results in a debt covenant violation. Also, when we study the level of institutional ownership before and after the GCAR, we find significant net institutional selling in these types of firms. We attribute these results to sophisticated investors’ awareness of the firm’s financing situation and the covenants carried by the firm’s debt.

REFERENCES


