Bankruptcies, Audit Reports, and the Reform Act

ABSTRACT

The Private Securities Litigation Reform Act (Reform Act) was enacted as law in 1995 and represents a major victory for the public accounting profession. Since audit reporting for publicly traded companies that enter bankruptcy continues to be of interest to legislators and the public, the Reform Act also includes audit reporting requirements regarding the auditor’s assessments of a company’s ability to continue as a going concern. This study examines the potential impact of the Reform Act on auditor reporting by examining audit reports for 383 bankrupt companies during the 1991-1998 period. The results indicate that, after controlling for financial stress, company size, default status, audit reporting lag and bankruptcy filing lag, auditors were less likely to have issued prior going-concern modified audit reports for bankrupt companies after the Reform Act.

Keywords: Private Securities Litigation Reform Act, Bankruptcy, Going-concern reporting.

Data Availability: Contact the authors.
Bankruptcies, Audit Reports, and the Reform Act: A Note

The objective of this study is to examine the association between bankruptcies and audit reports before and after the Private Securities Litigation Reform Act (hereafter the Reform Act) of 1995. Motivation for this research comes from the importance of the Reform Act to the public accounting profession, and the long standing concern of legislators and the public about auditor warnings of client failure in the form of modified audit opinions.

The AICPA and public accounting professionals have over the past decade repeatedly voiced their concern about the “litigation crisis” in the United States (e.g., Cook et al. 1992; POB 1993; Mednick and Peck 1994; Berton 1995). The annual reports of the AICPA and speeches by AICPA officials have, on multiple occasions, made it clear that litigation reform has been a top agenda item for the public accounting profession (e.g., AICPA 1992; Chenok 1994). After lobbying for many years, and over President Clinton’s veto, the public accounting profession won an important victory with the enactment of the Reform Act in December 1995. Generally, the Reform Act provides relief to the public accounting profession by (a) making it more difficult for plaintiffs’ attorneys to successfully pursue class-action litigation against auditors, and (b) providing for proportionate liability in damage awards.¹

Legislators have continually focused on instances of companies filing for bankruptcy shortly after receiving a standard unqualified audit report, and have criticized such instances as either audit failures or reporting inadequacies on the part of the public accounting profession (e.g., Ellingsen et al. 1989; Carmichael and Pany 1993). Such widely held perceptions of inadequate auditor performance have prompted numerous congressional hearings about the
public accounting profession and the profession’s role in warning the public of these business failures (cf., U.S. House of Representatives 1985 and 1990). As a manifestation of these concerns, the Reform Act of 1995 has an audit requirement section related to going concern reporting. Specifically, the Reform Act requires that

“Each audit … of the financial statements of an issuer by an independent public accountant shall include, in accordance with generally accepted auditing standards, as may be modified or supplemented from time to time by the Commission [SEC] … an evaluation of whether there is substantial doubt about the ability of the issuer to continue as a going concern during the ensuing fiscal year.”

After the enactment of the Exchange Act in 1934, this is the only instance where Congress has explicitly mandated a specific auditing procedural requirement. While the provisions of the Reform Act are identical to the requirements in Statement on Auditing Standards No. 59, The Auditor's Consideration of an Entity's Ability to Continue as a Going Concern (AICPA 1988), this is the first instance of Congress legislating an auditing procedure.

Given (a) the importance assigned by the public accounting profession to the Reform Act, and (b) legislators’ and the public’s continuing interest regarding going-concern evaluations of bankrupt companies, this paper examines the propensity of auditors to issue a going-concern modified audit opinion for bankrupt companies before and after the Reform Act. Specifically, we examine the prior audit reports for a sample of bankruptcy filings from 1991 through 1998.

PRIOR RESEARCH AND RESEARCH QUESTION

Audit Opinions and Bankruptcies

Many previous studies have noted that there are two types of misclassifications, with associated costs, in the context of audit opinions and bankruptcies (e.g., Raghunandan and Rama
A type I reporting “error” occurs when a company receives a going-concern modified report but subsequently remains viable. A type II reporting “error” occurs when a company enters bankruptcy but did not receive a prior going-concern modified opinion. As noted by McKeown et al. (1991b) and Geiger et al. (1998), such reporting outcomes are not technically reporting errors per the existing professional auditing standards, but are viewed as such by clients, financial statement users and Congress. Both types of reporting errors have costs associated with them to auditors, clients and others.

Previous research has examined the subsequent status of companies receiving a going-concern modified audit report. The proportion of companies receiving a going-concern modified audit opinion that entered into bankruptcy within one year was 9 percent in Mutchler and Williams (1990), and 13 percent in Geiger et al. (1998). Two other studies, which have examined subsequent periods of up to eight years, have found that between 20 to 25 percent of companies receiving a going-concern modified opinion subsequently enter into bankruptcy (Altman 1982, Nogler 1995). When a client receives a going-concern modified audit report and subsequently remains viable, there may be costs to the client (from increased cost of capital) and to the auditor. The empirical evidence in Geiger et al. (1998) suggests that type I reporting errors are associated with an increased likelihood of clients switching to a new auditor.

Many previous papers have documented that less than half of all companies filing for bankruptcy had a prior going-concern modified audit opinion in the immediately preceding financial statements (Altman 1982; Menon and Schwartz 1987; Hopwood et al. 1989; McKeown et al. 1991a; Chen and Church 1992). Some recent studies have examined the association between bankruptcies and prior audit reports before and after the enactment of SAS No. 59.
(Raghunandan and Rama 1995, Carcello et al. 1995, 1997). When a client files for bankruptcy without a prior going-concern modified opinion, there may be a greater likelihood that the auditor will face litigation related costs and suffer a loss of reputation. Carcello and Palmrose (1994, 3) studied bankruptcy related lawsuits against auditors, and found that auditors who had issued modified reports prior to client bankruptcy had “the highest dismissal rate and the lowest payments (mean and median).”

**Reform Act and Audit Reports**

If auditors perceive (a) a relationship between audit reporting and the likelihood of litigation and related costs, and (b) that the Reform Act has reduced the costs associated with litigation against the auditors, then we can expect an association between the enactment of the Reform Act and audit opinions for companies facing going-concern uncertainties.

Experimental and survey evidence suggests that some auditors believe the likelihood of losses from litigation are increased if a bankrupt company is not given a prior going-concern modified opinion (e.g., Kida 1980; Mutchler 1984). Accordingly, several prior researchers have considered the cost of misclassifying a bankrupt company in their analyses (e.g., Hopwood et al. 1994; Raghunandan and Rama 1995). Carcello and Palmrose (1994) found that auditors who did not issue prior modified reports to bankrupt companies had the highest payouts in subsequent settlements.

Audit partners and others have noted that the Reform Act has provided important litigation relief to the accounting and auditing profession (c.f., King and Schwartz 1997, Cloyd et al. 1998, Gramling et al. 1998). This suggests that auditors would likely perceive the passage of
the Reform Act as reducing the costs associated with litigation. Hence, a reduction in the likelihood of significant costs being associated with a type II reporting error may have caused auditors to be less likely to issue a going-concern modified opinion after the passage of the Reform Act. This is especially true when coupled with the auditor’s realization of the potential loss of the client associated with issuing a going-concern modified opinion to a company that subsequently remains viable (Geiger et al. 1998). Thus, it is possible that the Reform Act has reduced the propensity of auditors to issue going-concern modified opinions for companies approaching bankruptcy.²

Thus, the research question examined in this study is:

- Were bankrupt companies less likely to have received a prior going-concern modified audit opinion after the enactment of the Reform Act?

**METHOD AND DATA**

To assess the potential impact of the Reform Act on auditor reporting for bankrupt companies, we examine audit reports on bankrupt companies before and after the Reform Act was enacted. We then use a multivariate logistic regression to control for variables associated with auditor reporting. The audit report immediately preceding bankruptcy is the dependent variable in our model and time period (TIME), pre- or post-Reform Act, is the variable of interest. Since the Reform Act was signed into law and became effective on December 22, 1995, any audit report rendered subsequent to this date was considered to be in the post-Reform Act period.

McKeown et al. (1991a) and Hopwood et al. (1994) highlight the importance of separately analyzing stressed and non-stressed companies in the context of examining
associations between bankruptcies and prior audit opinions. Hopwood et al. (1994, 412) note that auditors do not generally issue going-concern modified audit opinions for non-stressed companies that suddenly fail, and since “non-stressed, bankrupt companies are likely to have experienced management fraud leading to misstated financial statements . . . investigations of auditors’ going-concern opinion decisions should be conducted on samples that have been partitioned into stressed and non-stressed categories.” Following Mutchler (1985) and Hopwood et al. (1994), we define a company as stressed if it exhibited at least one of the following financial stress signals: (a) negative working capital, (b) a loss from operations in any of the three years prior to bankruptcy, (c) negative retained earnings three years prior to bankruptcy, and (d) a bottom line loss in any of the three years prior to bankruptcy.

We then used a multivariate logistic regression to examine auditor reporting. The control factors, based on prior research (McKeown et al. 1991a; Chen and Church 1992; Raghunandan and Rama 1995; Carcello et al. 1995), are company size (LNSL), financial stress (PROB), default status (DFT), bankruptcy lag (BKTL), and audit reporting lag (REPL). Prior research suggests that there is (a) a positive association between the likelihood of a going-concern modified audit opinion, and financial stress, default on debt obligations, and reporting lag, and (b) a negative association between the likelihood of a going-concern modified audit opinion, and company size and bankruptcy lag.

We measure client size (LNSL) using log of sales (deflated to 1991 levels using the CPI as the deflator). We measure financial stress (PROB) using the coefficients given in Hopwood et al. (1994), and calculate PROB separately for stressed and non-stressed companies.³ We classify a company as in default (DFT) if they are either in payment default or technical default of loan
covenants. Bankruptcy lag (BKTL) is the delay, in number of days, from the date of the audit report date to the bankruptcy date. Reporting lag (REPL) is the delay, in number of days, from the fiscal year end to the date of the audit report.

The relationship between bankruptcy and the factors discussed above is examined using a logistic regression to estimate the coefficients in the following model:

\[ GC = b_0 + b_1 \times \text{LNSL} + b_2 \times \text{PROB} + b_3 \times \text{DFT} + b_4 \times \text{BKTL} + b_5 \times \text{REPL} + b_6 \times \text{TIME} \]

where

- \( GC = 1 \) if audit opinion prior to bankruptcy was modified for going-concern, else 0,
- \( \text{LNSL} = \) Natural log of sales (in thousands of dollars) deflated to 1991 levels,
- \( \text{PROB} = \) Probability of bankruptcy, as calculated from Hopwood et al.’s (1994) model,
- \( \text{DFT} = 1 \) if the company is in default, else 0,
- \( \text{BKTL} = \) Number of days from audit report date to bankruptcy date,
- \( \text{REPL} = \) Number of days from fiscal year end to audit report date, and
- \( \text{TIME} = 1 \) if post-Reform Act, else 0.

To examine the association between bankruptcies and prior audit opinions, a list of public company bankruptcies for the years 1991 through 1998 was obtained from New Generation Research Inc., publishers of the yearly Bankruptcy Almanac. Relevant financial statement data were obtained from Compact Disclosure-SEC. Audit report data were obtained by examining 10-K filings on Laser Disclosure or LEXIS-NEXIS. Consistent with prior research, we deleted companies in the banking, other financial and real estate sectors, and utilities because such companies have unique financial characteristics. Also, consistent with prior research, for companies that had already filed for bankruptcy at the time the audit report was issued, we used
their prior year’s financial statement data and audit report (McKeown et al. 1991a; Mutchler et al. 1997).

We were able to obtain relevant data for 383 companies in the 1991-1998 time period. Using the stress criteria discussed earlier, 365 of the 383 companies were classified as stressed. Since the non-stressed sample has only 18 companies, we do not perform our logistic regression analysis on the sub-sample of non-stressed, bankrupt companies. Thus, the analyses in the remainder of this paper focuses only on the set of 365 stressed, bankrupt companies.

RESULTS

Table 1 provides descriptive data about the sample of bankrupt companies examined in this study. Panel A of Table 1 indicates that there were no significant differences for the sample of companies in the pre-Reform Act and post-Reform Act periods on any of the control variables used in this study. However, there were significant differences on all of the control variables except reporting lag when comparing the subsets of companies with and without a prior going-concern modified opinion. As expected, companies receiving a prior going-concern modified report were smaller, had shorter bankruptcy lags, were in greater financial stress and more likely to be in default. As seen in panel B, five of the ten correlations involving the control variables are significant, but the highest magnitude of the correlations is only .21.

Consider the pre-Reform Act period, 145 of the 246 (59 percent) bankrupt companies received a prior going-concern modified audit report. In the post-Reform Act period, 53 of the 119 (45 percent) bankrupt companies received a prior going-concern modified audit report.
univariate chi-square test of association is significant at conventional levels (chi-square = 6.71, p = .010), preliminarily indicating a difference in going-concern modification propensities in the pre- and post-\textit{Reform Act} periods. However, a more comprehensive assessment requires a multivariate analysis that controls for other reporting related factors, which is discussed next.

Results from the multivariate logistic regression are presented in Table 2. The overall model is significant (chi-square = 152.5, 6 d.f., p < .0001) and the coefficients for all the control factors except reporting lag are significant at conventional levels. The coefficient for the \text{TIME} variable in this aggregate analysis is negative and significant (p = .006), indicating that bankrupt companies were less likely to have received a prior going-concern modified opinion in the post-\textit{Reform Act} period.

\textit{Further Analyses}

The results of Carcello et al. (1997) underscore the importance of transition periods in examining issues related to audit opinions. The \textit{Reform Act} was enacted in to law on December 22, 1995, but action related to the \textit{Reform Act} was in the legislative pipeline for many months. In particular, chances of the \textit{Reform Act} being enacted significantly increased after the elections in 1994 when both the US House of Representatives and the Senate became Republican majority institutions. Thus, it is possible that audit opinions issued during 1995 may have been influenced by the possibility of the \textit{Reform Act} being enacted in to law. Others might argue that audit reporting behavior would not have changed immediately after the enactment of the law, and that audit reporting behavior would have changed only after some time had elapsed subsequent to the enactment of the law.
Thus, there are two possible “transition periods” – 1995 and 1996. Accordingly, we performed sensitivity analyses for three different sub-samples formed by deleting observations from (a) 1995, (b) 1996, and (c) 1995 and 1996. In all three such sub-samples, the results were substantively the same as those reported in Table 2, and the TIME variable was significant at $p < .05$ in all three regressions.

We also performed further analysis by partitioning the stressed sample of bankrupt companies into two groups based on probability of bankruptcy (PROB). When considering the sub-sample with low financial stress (i.e., PROB lower than median PROB), the TIME variable was significant at $p < .05$. However, when considering the sub-sample with high financial stress (i.e., PROB equal to or greater than the median PROB), the TIME variable was not significant.

We interpret the above results as follows: in cases with high financial stress, there may be less room for reporting discretion and hence auditors may not have reduced their issuance of going-concern modified opinions in the post-Reform Act period. However, cases with lower financial stress are more likely to be the marginal cases, and in such instances there may be greater room for subjective judgments by auditors, including the weight assigned to management plans and mitigating factors. It is in these instances that there is greater room for reporting discretion, and this is where we observe that the likelihood of receiving a going-concern modified opinion has significantly decreased in the post-Reform Act period.

**SUMMARY AND CONCLUSIONS**

This study examined the potential impact of the Reform Act on auditor reporting decisions by examining bankruptcies before and after the Reform Act. Our analysis of companies
that filed for bankruptcy in the years 1991-1998 presents evidence that, after the Reform Act, auditors were less likely to have rendered prior going-concern modified audit opinions for bankrupt companies. Further, the significant negative reporting relationship after the enactment of the Reform Act was prevalent in the sub-sample of companies with lower financial stress, but not for the sub-sample of companies with higher financial stress. We interpret these results as indicating that auditors were less likely to issue a going-concern modified report in the marginal instances, where there is greater room for reporting discretion, after the enactment of the Reform Act. These results support the argument that since the Reform Act provided important litigation relief to the profession, auditors may be comparatively less concerned with liability issues after the passage of the Reform Act, which in turn leads to auditors being less likely to issue prior going-concern modified reports for bankrupt companies.

While this study is the first to investigate the possible effects of the Reform Act on auditor reporting, it has included only a three-year period under the new law. Future research should attempt to support our findings with a larger sample of years in the post-Reform Act period. Further, as evidenced by the discussions of the Panel on Audit Effectiveness, large audit firms have re-engineered the audit process throughout the 1990s. It is possible that such efforts may have also affected the ability of the auditors to detect or report on going-concern issues.

This study examined type II errors only. It also appears worthwhile to examine if the proportion of type I errors (going-concern modified opinions for subsequently viable companies) have changed in the post-Reform Act period. Type I errors also impose costs on clients, auditors, and financial statement users. The results in this paper suggest that type I errors may also be expected to have been affected by the Reform Act, but this needs to be empirically tested.
Another fruitful avenue for future research may be to examine the impact of the Reform Act on other types of audit decisions, including those related to client acceptance and retention, as well as other decisions made during the course of an audit of a public company.
REFERENCES


Table 1  
Descriptive Statistics

Panel A: Means for different time periods and audit opinion groups

<table>
<thead>
<tr>
<th>Variable</th>
<th>Time Period</th>
<th>Audit Opinion</th>
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<tbody>
<tr>
<td></td>
<td>Pre-Reform Act (n=246)</td>
<td>Post-Reform Act (n=119)</td>
</tr>
<tr>
<td>LNSL</td>
<td>11.02</td>
<td>11.29</td>
</tr>
<tr>
<td>PROB</td>
<td>0.51</td>
<td>0.56</td>
</tr>
<tr>
<td>BKTL</td>
<td>219</td>
<td>227</td>
</tr>
<tr>
<td>REPL</td>
<td>84</td>
<td>89</td>
</tr>
<tr>
<td>DFT (proportion)</td>
<td>0.61</td>
<td>0.54</td>
</tr>
<tr>
<td>GC modified</td>
<td>0.59</td>
<td>0.45#</td>
</tr>
</tbody>
</table>

# significantly different from Pre-Reform Act sample, p < .05  
* significantly different from modified opinion sample, p < .01

Panel B: Correlations

<table>
<thead>
<tr>
<th></th>
<th>PROB</th>
<th>BKTL</th>
<th>REPL</th>
<th>DFT</th>
</tr>
</thead>
<tbody>
<tr>
<td>LNSL</td>
<td>-.21*</td>
<td>-.05</td>
<td>-.06</td>
<td>.15*</td>
</tr>
<tr>
<td>PROB</td>
<td>-0.09</td>
<td>.04</td>
<td>-0.14*</td>
<td>-0.06</td>
</tr>
<tr>
<td>BKTL</td>
<td>-0.14*</td>
<td>-0.06</td>
<td>.17*</td>
<td></td>
</tr>
</tbody>
</table>

* significant at p < .01

Note: The pre-Reform Act sample includes audit reports in the years 1991-1995. The post-Reform Act sample includes audit reports in the years 1996-1998.

LNSL = Natual log of sales (in thousands of dollars) deflated to 1991 levels,  
PROB = Probability of bankruptcy, calculated from Hopwood et al. (1990) model,  
BKTL = Number of days from audit report date to bankruptcy date,  
REPL = Number of days from fiscal year end to audit report date, and  
DFT = 1 if the company is in default, else 0.
Table 2
Logistic Regression Results – Stressed sample
Model: $GC = b_0 + b_1 \cdot LNSL + b_2 \cdot PROB + b_3 \cdot DFT + b_4 \cdot BKTL + b_5 \cdot REPL + b_6 \cdot TIME$

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Chi-square</th>
<th>p-value</th>
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</thead>
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<tr>
<td>INTERCPT</td>
<td>2.535</td>
<td>6.86</td>
<td>.0088</td>
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<tr>
<td>LNSL</td>
<td>-0.277</td>
<td>14.68</td>
<td>.0001</td>
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<tr>
<td>PROB</td>
<td>2.374</td>
<td>42.57</td>
<td>.0001</td>
</tr>
<tr>
<td>DFT</td>
<td>1.822</td>
<td>39.54</td>
<td>.0001</td>
</tr>
<tr>
<td>BKTL</td>
<td>-0.005</td>
<td>19.32</td>
<td>.0001</td>
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<tr>
<td>REPL</td>
<td>0.000</td>
<td>0.01</td>
<td>.9216</td>
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<tr>
<td>TIME</td>
<td>-0.784</td>
<td>7.49</td>
<td>.0062</td>
</tr>
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</table>

Model chi-square = 152.5, 6 d.f., p < .0001; c-statistic = .85

Note:
LNSL, PROB, DFT, BKTL, and REPL are as defined in Table 1.
GC = 1 if audit report was modified for going-concern, 0 otherwise
TIME = 1 if audit report issued after Reform Act became law, 0 otherwise
NOTES

1. See Boyle and Knopf (1996), King and Schwartz (1997) and Cloyd et al. (1998) for a detailed discussion of several of the Reform Act’s liability provisions.

2. Alternatively, some may argue that by specifically mandating an audit procedure, the Reform Act has elevated the auditor’s going-concern evaluation to the status of a law and by doing so has made it more important in an audit engagement (Boyle and Knopf 1996). Thus, the status elevation could lead to increased likelihood of auditors issuing going-concern modified audit opinions for publicly traded companies approaching bankruptcy. However, the Reform Act essentially incorporates an existing professional requirement, and plaintiff attorneys in securities class-action litigation before the Reform Act could still rely on GAAS requirements related to going-concern reporting.

3. Table 3 in Hopwood et al. (1994) provides the coefficients for the various financial ratios. A reviewer pointed out (and, was corroborated by one of the authors of that paper) that the value of the intercepts given in Table 3 of Hopwood et al. (1994) are incorrect. For example, the intercept for the stressed sample should be –7.322 (as opposed to 5.565), after correcting for the error and adjusting for the differing sample proportions used in estimating the models.

4. Stone and Rasp (1991) note that for logistic regression analysis, the number of observations should be at least 15 times the number of variables included in the regression.

5. All of these 18 non-stressed companies received an unmodified audit report immediately prior to filing for bankruptcy.

6. The proportion of companies in default that did not receive a going-concern modified report in our study was 39%. This proportion is higher than similar proportions reported by Chen and Church (1992) and Mutchler et al. (1997). Part of this disparity may be due to the use of differing sample selection procedures. Chen and Church (1992) used the NAARS database, which consists of the largest traded companies, to identify their sample firms; Mutchler et al. (1997) limit their analyses to companies listed on the New York and American Stock Exchanges. Our use of the more comprehensive CD-SEC database has allowed us to include many smaller companies than previous researchers. Thus, an interesting area for future research would be to examine if the same relationship between default and going-concern reporting exists for both small and large publicly traded companies.

7. As noted by a reviewer, the type II error proportion in the post-Reform Act period, while different from the pre-Reform Act period, is not inconsistent with the type II error proportions found in other studies in other time periods.