

# **Strategic Viability and Going-Concern Audit Opinions**

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# Strategic Viability and Going-Concern Audit Opinions

## ABSTRACT

In this paper we examine the association between client strategic viability and the likelihood that an auditor issues a going-concern opinion. With the emergence of business risk auditing, traditional auditing methodologies have been complemented with new audit processes based on a top-down, holistic perspective of the client's business and industry (e.g. Bell et al., 1997; Knechel, 2001). The most innovative aspect of business risk auditing is the assessment of client strategic viability, which can have a substantial impact on the subsequent audit procedures and the assessment of a client's future financial viability. Prior research about going-concern opinions largely focused on the effects of financial and market variables (e.g. Mutchler, 1985, 1997; Menon and Schwartz, 1987) and short-term management plans (Geiger and Rama 2003). Although SAS no. 59 clearly prescribes the consideration of management plans in making going-concern decisions, the impact of strategic actions on the auditor's going-concern opinion remains relatively unexplored. Based on the strategy literature, we distinguish between long-term strategic (growth) actions and short term operating initiatives. Consistent with that literature, we argue that long-term strategic approaches are likely to be perceived as mitigating factors, but only if they are able to generate an impact within the next twelve months (given the going-concern decision making context). Based on the mixed results in the strategy literature regarding the success of operating turnaround initiatives, we further hypothesize that short term activities do not function as mitigating factors. We find indeed that cooperative agreements provide positive signals about the going-concern status of the firm and therefore can be interpreted as a mitigating factor, whereas the presence of short-term cost reduction strategies is perceived as an additional going-concern risk factor and increases the likelihood to receive a going-concern opinion.

**KEY WORDS:** going-concern opinion, strategic performance; business risk auditing.

**JEL CLASSIFICATION:** M42; M13

# Strategic Viability and Going-Concern Audit Opinions

## INTRODUCTION

In this paper we investigate whether the auditor considers the implementation of turnaround approaches as mitigating factors when making an audit-opinion decision for financially distressed firms. Over the past decade changes in the scope and methodology of auditing have been reported in large accounting firms (see, for example, Bell et al. 1997; Knechel, 2001). Whereas a ‘traditional’ auditor adopts a “bottom-up” focus thereby directing attention to the nature of account balances, classes of transactions, and properties of the client’s accounting system, a ‘business risk auditor’ develops a top-down holistic perspective of the client’s business and industry. This entails a thorough analysis of the client’s business and the strategic position of the organization. In this study we examine the consequences of strategic initiatives on perceived client viability, as reflected in the auditor’s assessment of the client’s going-concern status. It is well documented that auditors make going-concern decisions based on reported financial results and compliance with financial obligations (see, for example, Mutchler, 1985 and 1997; Levitan & Knoblett, 1985; Menon & Schwartz, 1987; Dopuch et al., 1987; Bell & Tabor, 1991; Chen & Church, 1992; Gaeremynck & Willekens, 2003). Next to financial or market variables, the impact on the audit opinion of contrary and mitigating factors in publicly available disclosures such as the financial press, 10-K’s or management discussions and analyses is also documented (see Mutchler et al., 1997). Although SAS no. 59 clearly prescribes the consideration of management plans in making going-concern decisions, the impact of strategic actions on the auditor’s going-concern opinion remains relatively unexplored. In this paper we contribute to this literature by investigating the impact of a broad set of client strategic initiatives on the auditor’s going-concern assessment.

The importance of information other than that contained in the financial statements is emphasized in SAS no. 59. More specifically, SAS no.59 requires auditors to consider management plans to mitigate the effects of the adverse conditions or events when assessing their client's ability to continue as a going-concern. Although the importance of strategic management plans is formally recognized in today's auditing practice and auditing standards, research on the impact of forward-looking management plans on going-concern decisions is scant. Behn et al. (2001) recognized this caveat and provide evidence of the relationship between the likelihood of going-concern opinions and a company's ability to obtain new financing and to reduce costs. After controlling for financial condition, size, default status, and the propensity to voluntarily disclose information, their results indicate that going-concern reporting decisions are strongly linked to publicly available mitigating information relating to certain management plans. In particular, plans to issue equity and to borrow additional funds exert the strongest association with the issuance of an unqualified opinion. Recently, Geiger and Rama (2003) report that companies are more likely to receive a modified report if they entered into a cost reduction plan or sold off significant assets. However, contrary to the findings of Behn et al. (2001), plans for the issuance of new debt or equity are not significantly associated with opinion type.

In this paper, we contribute to this literature by testing the association between the likelihood of going-concern opinions and a comprehensive set of possible turnaround strategies for a sample of distressed companies. We rely on information disclosed by management in the management discussion and analysis (MD&A), and remainder of the 10-K (Behn et al., 2001; Geiger and Rama, 2003). We distinguish between management actions aimed at a short-term improvement in financial performance and strategic long-term growth initiatives. This categorization stems from the strategic literature, which contains an extensive body of research that focuses on how firms reverse firm-threatening performance declines (see for example, Barker & Duhaime, 1997; Robbins and Pearce II, 1992; Sudarsanam & Lai, 2001; Bruton et al.

2003). We find for a sample of distressed US manufacturing firms that the inclusion of variables that capture strategic and operating turnaround initiatives enhances the explanatory power of going-concern opinion models. More specifically, we find that cooperative agreements provide positive signals about the going-concern status of the firm and therefore can be interpreted as a mitigating factor, whereas the presence of cost reduction strategies is perceived as an additional going-concern risk factor and increases the likelihood to receive a going-concern opinion.

The remainder of this paper is organized as follows. In the next section we develop our hypotheses. Section 3 then is devoted to the development of the going-concern opinion model that is tested in this paper. Next, in Section 4 we provide an overview of our sample selection procedure and data collection approach. In Section 5 we discuss the results of our analyses. We conclude in Section 6.

## **HYPOTHESES DEVELOPMENT**

SAS no. 59 clearly states that when there is substantial doubt about the continued existence of the entity as a going-concern, the auditor should identify and evaluate management's plans to mitigate the effects of the adverse conditions or events. If the auditor believes that management's plans overcome this substantial doubt, a going-concern audit report is not required. Examples of such management plans are included in SAS no.59, and relate to the sale of assets, the borrowing or restructuring of debt, the reduction of expenditures and the increase of ownership equity.

A few prior studies provide evidence that auditors are indeed committed to reviewing management plans that are dealing with adverse conditions or events when assessing a client's ability to continue as a going-concern (Behn et al., 2001; Geiger & Rama, 2003). However, these studies are confined to assessing the impact of examples of management plans that are explicitly mentioned in SAS no.59. In this paper, we elaborate on this theme and investigate the impact of

various turnaround strategies on the auditor's going-concern decision by using a much broader framework that comprises a variety of strategic actions. We motivate this elaborated perspective by the recent developments in auditing methodology that emphasize the auditor's knowledge of the client business and its strategic performance (see, for example, Bell et al., 1997; Knechel, 2001).

To predict the impact of these strategies on the going-concern opinion, we categorize management actions into *strategic* and *operating* turnaround approaches. This classification stems from the strategy literature that investigates the link between successful company turnaround and strategic focus (see, for example, Hofer, 1980; Bruton et al., 2003; Sudarsanam & Lai, 2001). Successful turnaround is defined as the reversal of a firm's pattern of performance decline (Schendel, Patton and Riggs, 1976). Firms experiencing financial distress may adopt a variety of strategies to return to financial health. In this paper, we adopt the widely used framework introduced by Hofer (1980), which distinguishes between two approaches to corporate turnarounds: the strategic turnaround and the operating turnaround. More specifically, the strategic turnaround approach is aimed at long-term profitability by solving external, strategic problems through for example a change in the strategic direction of the firm, its positioning, alliances and product lines (Bruton et al., 2003). An operating approach focuses on internal, operating problems of firms through – for example – decreasing costs, increasing efficiency, disposing assets, or improving sales (Hofer, 1980).

### **Hypothesis 1: Strategic turnaround approaches and going-concern opinions**

A strategic approach towards company turnaround focuses on the *long-term* strategic health of the company. When declines are firm-specific (as opposed to industry-based), successful turnarounds are likely to involve strategic reorientations (Barker III and Duhaime, 1997). Typically, firms implementing a strategic turnaround engage in strategic repositioning through

business divestments, acquisitions, alliances, new products, new markets, and increased market penetration.

The evidence from the strategy literature indicates that new product development and strategic acquisitions are often linked to performance improvement (see, for example, Capon et al., 1992). Capon et al. (1992) find a positive association between product innovation and financial performance. They also find that non-innovative firms that involve in acquisitions perform nearly as well as those that engage in product innovations. Cooperative agreements with other firms are also an essential element of a turnaround approach based on strategic change (see, for example, Barker III and Duhaime, 1997). Examples of cooperative strategies include long-term contractual agreements with suppliers or buyers, alliances or joint ventures, subcontracting and technology licensing agreements. Strategic alliances are a popular financing vehicle for companies in financial distress, as partnering up with a successful healthy company can provide distressed companies with additional funding to develop or market products, or with other benefits such as a more extensive customer base (see, for example, Bruton et al. 2003). Another vehicle to improve financial position is engaging in a licensing strategy with regard to unused or high-risk technology. Licensing out proprietary technology can substantially improve a company's financial position as it periodically receives royalties and/or milestone payments (see, for example, Sudarsanam and Lai 2003). A company can also safeguard future sales by engaging into long-term contracting with buyers or distributors (Miller, 1992).

The evidence from the strategy literature that focuses on examining the success of the implementation of strategic turnaround approaches supports the idea that such approaches are associated with successful company turnaround. Barker III and Duhaime (1997) find that when a company's decline is firm-based and not caused by an industry contraction, recovering firms implement more extensive strategic changes (reorientation). Sudarsanam and Lai (2001) provide evidence that firms recovering from financial distress typically adopt more forward-looking,

expansionary and external market focused strategies than non-recovery firms. Their findings further indicate that recovery firms typically adopt growth-oriented and external-market focused strategies, whereas non-recovery firms continue to engage in operating restructuring strategies.

Given the evidence from the strategy literature about the effectiveness of strategic approaches<sup>1</sup> for company turnaround and recovery, it is reasonable to expect that such strategies may also have a mitigating impact on the auditor's going-concern opinion. However, as the auditor's going-concern opinion is an assessment of the auditee's ability to survive during the next 12 months, only strategic approaches that are expected to have a positive impact on the company's liquidity status *within* those 12 months will be perceived as a mitigating factor.

Recent meta-analytic review of merger and acquisition performance by King et al. (2004) found no evidence of acquisitions, on average, improving the short-term financial performance of acquiring firms. Instead, this study indicates that acquisitions either have no significant effect or a modest negative effect on an acquiring firm's financial performance in the post-announcement period. With respect to the impact of product expansion on short-term performance, Mishina et al. (2004) report a negative association with the rate of short-term sales growth. Mishina et al. (2004) explain this finding by stating that new product introductions involve a substantial level of unpredictability and complexity, and generally require a great deal of management resources. They also find that this relationship is moderated by financial slack. As the firms in our sample are highly distressed, it is not likely that this moderation effect be at work.

Prior research about the consequences of the implementation of a cooperative strategy has shown that strategic networks such as strategic alliances, joint-ventures and long-term buyer-supplier relationships often have positive effects on a number of different measures of corporate performance. For example, Mitchell and Singh (1996) reported evidence of alliances raising organisational survival rates. Powell et al (1996) found that companies which had formed many

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<sup>1</sup> These include the introduction of new products, corporate acquisitions and cooperative agreements with other firms – see also Section Model Specification.

alliances experienced accelerated growth rates. Gulati et al. (2000) highlight the idea that one of the most important benefits of strategic networks is the increased access to information, resources, markets and technologies. In addition to access to resources, Stuart (2000) found that strategic alliances also affect firm subsequent-period performance through their influence on an organization's reputation, particularly if the firm is of ambiguous quality.

So, prior research indicates that the introduction of new products and corporate acquisitions are less likely to have a positive financial impact within the next 12 months, whereas it is more likely that cooperative agreements generate positive cash flows within the next 12 months. This leads to our first hypothesis:

**H1:** *For financially distressed companies the implementation of a strategic turnaround approach is likely to function as a mitigating factor and to reduce (ceteris paribus) the propensity that a going-concern audit opinion is issued, given that the strategy is perceived to have a mitigating impact within the next 12 months.*

## **Hypothesis 2: Operating turnaround approaches and going-concern opinions**

An operating approach to company turnaround typically consists of actions related to cost reduction, revenue generation and operating-asset reduction. The focus is on achieving short-term financial relief, without considering long-term changes in the organization's strategy. In order to achieve short-term profitability improvement, companies have the opportunity to engage in classic retrenchment activities such as: divestment, product elimination, cost rationalization and employee layoffs. In addition to these cost-cutting initiatives, revenue generating strategies may be pursued focusing on existing lines of products, price-cutting, increased marketing expenditure or increased direct sales efforts (Hofer, 1980).

Prior studies that examine the association between the implementation of operating approaches and successful company turnaround have focused on retrenchment activities and provide mixed results. Several studies report that classic retrenchment strategies are significantly associated with turnaround success (see, for example, Robbins and Pearce II, 1992), whereas other studies cast doubt on the value of operating approaches as part of a company's turnaround approach (Sudarsanam and Lai, 2001; Barker III & Mone, 1994).

The mixed evidence from the strategy literature indicates that operating turnaround strategies *per se* may not be capable of curing deficiencies in a declining firm's strategic orientation. In other words, if a declining firm's problems relate to its strategic positioning, these short-term cures could be inadequate, given that changing a firm's strategic orientation is a prerequisite to recovery (see also Hofer, 1980, Schendel et al., 1976, Barker and Duhaime, 1997). In this paper we investigate the auditor's perception of the effectiveness of operating turnaround approaches<sup>2</sup> for distressed firms. A relevant question is which signal such approaches by themselves send to the auditor regarding the going-concern status of the company. Given the evidence reported above, it is likely that – for distressed firms – auditors perceive operating turnaround strategies as insufficient to induce recovery. Note that Geiger & Rama (2003) report that cost-cutting or asset disposal activities are associated with higher likelihoods of receiving a going-concern audit report, and thus do not send a positive signal to the auditor, but instead are seen as negative signals.

**H2:** *For financially distressed companies, the implementation of an operating turnaround approach does not function as a mitigating factor and does not decrease the propensity that the auditor issues a going-concern opinion.*

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<sup>2</sup> These include cost-cutting activities, disposal of assets, increasing marketing efforts and improving existing products and operating processes – see also Section Model Specification.

## MODEL SPECIFICATION AND VARIABLE MEASUREMENT

We use the following logistic model to test our two hypotheses:

$REPORT = f(\text{strategic turnaround variables, operating turnaround variables, control variables})$ .

REPORT is an indicator variable that takes a value equal to one if the auditor issues a going-concern report, and zero otherwise. The turnaround approach variables contain information regarding turnaround strategies implemented by the company to overcome adverse conditions affecting corporate performance. This information is manually collected from corporate disclosures in the annual report and 10-K. We investigate the impact of two categories of turnaround strategies that can potentially mitigate the adverse conditions affecting company performance. In the category of operating turnaround strategies, we consider the impact of cost-cutting and asset disposal activities, product and operating process improvements and increasing marketing efforts. As strategic turnaround approaches, we consider cooperative agreements with other firms, the introduction of new products and mergers and acquisitions. Finally, the control variables in our model encompass factors that have been found to be associated with going-concern opinion decisions and the propensity to voluntarily disclose information in prior research.

[ INSERT TABLE 1 ABOUT HERE ]

### **Definition of strategic turnaround variables**

Long-term strategic turnaround approaches typically relate to reconfiguration of the assets and/or the corporate portfolio, and product and/or market refocusing S-EXPANSION as a strategic turnaround variable that captures whether a company engages in an acquisition strategy (of other

companies) to accelerate growth. S-EXPANSION is set equal to 1 if the company reports acquisitions for the year under audit, 0 otherwise. Based on the portfolio restructuring measure of Barker and Duhaime (1997), we also include S-COOP, a variable that indicates whether a company enters into strategic alliances, joint-ventures, licensing agreements and other cooperative arrangements. S-COOP is set equal to 1 if the company entered in cooperative arrangements for the year under audit, 0 otherwise. Further, we define S-PRODUCT as a strategic turnaround variable that assesses whether a company has recently introduced new products. S-PRODUCT is set equal to 1 if the company reports the introduction of new products for the year under audit, 0 otherwise. Finally we define the variable STRATEGIC to capture the aggregate (joint) impact of all (long-term) strategic initiatives that have been implemented by the audited company over the last year. STRATEGIC is a discrete variable (taking values between 0 and 3) representing the sum of all strategic variables defined. We also refer to Table 1, for an overview of definitions of the strategic variables.

### **Operating turnaround approach variables**

Our classification of operating turnaround variables is based on Hofer (1980) who distinguishes between four different types of operating turnaround approaches: a) cost-cutting strategies, b) asset reduction strategies, c) revenue increasing strategies and d) combination strategies. Accordingly, we include and test variables reflecting a cost reduction strategy (O-COSTRED), an asset disposal strategy (O-DISPOSE), a commercial strategy (O-COMMERCIAL), and a strategy aimed at the improvement of existing products and processes (O-UPGRAD).

We define O-COSTRED as an operating turnaround variable that captures significant cost reduction efforts. In particular this variable relates to both employee layoffs and other cost reduction efforts during the year under audit. O-COSTRED is set equal to 1 if the company

reports cost reduction strategies for the year under audit, and zero otherwise. O-DISPOSE is defined as an operating turnaround variable that indicates whether a company engages in the sale of significant assets. O-DISPOSE is set equal to 1 if the company reports the sale of assets for the year under audit, 0 otherwise. As opposed to strategic actions aimed at reducing expenditures, short-term operating strategies also include a number of revenue generating activities (Hofer, 1980). Typically, firms in a revenue-generating operating turnaround focus on existing product lines and processes, and envisage to stimulate demand or to enhance the efficiency of the firm's current operations. This involves the implementation of activities such as price cutting, increased advertising, increased sales efforts and operating efficiency improvements (Hofer, 1980). Subsequently, we define O-COMMERCIAL as an operating turnaround variable that indicates whether a company increases its marketing efforts, and O-UPGRAD as a variable that relates to the realisation of improvements in existing products and production processes. O-COMMERCIAL is set equal to 1 if the company reports increased marketing efforts for the year under audit, 0 otherwise. O-UPGRADE is set equal to 1 if whether the company reports product and/or process improvements for the year under audit, 0 otherwise. Finally, the variable OPERATING is introduced to capture the aggregate (joint) impact of all operating strategies and is defined as the sum of O-COSTRED, O-DISPOSE, O-COMMERCIAL and O-UPGRADE.

### **Control variables**

The issuance of a going-concern opinion is obviously conditional upon the auditee's financial condition. Therefore a first category of control variables that are included in our model capture the financial condition of the firm. Based on prior audit opinion studies (see, for example, Mutchler 1985, 1997; Chen and Church, 1992) we include cash flow from operations divided by total liabilities (CFO/TL), the current ratio (CR), and long term debt divided by total assets (LTD/TA), as control variables. Following Menon and Schwartz (1987), we also include a

change variable, namely the change in current ratio ( $\Delta CR$ ). In line with Bell and Tabor (1991), we also control for a company's liquidity performance relative to the industry, by including an indicator variable (INDCR), taking the value of one if the current ratio of the company exceeds the industry median current ratio. As in Chen and Church (1992), we also add DEFAULT, an indicator variable that takes a value equal to one if the company defaults on debt payments or is in technical default of loan covenants<sup>3</sup>, and zero otherwise. Following prior research, we also include the log of total assets to control for company size (see, for example, Chen and Church, 1992).

A second category of control variables constitute mitigating factors identified in prior audit opinion research. Behn et al. (2001) find that plans to use existing bank lines of credit and other approved lines of credit are negatively associated with the likelihood of a going-concern opinion. Consistent with Behn et al. (2001) we include BORROW, a variable that is set equal to one if the auditee plans to borrow funds through existing bank lines of credit or other approved debt instruments; and STOCK, a variable that is set equal to one if the auditee plans to issue equity through existing or committed arrangements.

## **SAMPLE AND DATA**

### **Sample selection**

Consistent with prior going-concern studies for example (see for example, Mutchler, 1985; Chen and Church, 1992; and Behn et al., 2001) we select a sample adopting a matched pair design<sup>4</sup>. In particular, we first selected a sample of companies that received a first-time going-concern opinion and then a matched sample of distressed companies that did not receive a going-concern opinion.

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<sup>3</sup> A company's default status was determined by reading the MD&A and debt footnotes in the financial statements.

<sup>4</sup> A matched pair design is most often used when the research design necessitates manual data collection, as is the case in this study.

### *Selection of going-concern firms*

We identified all firms from the Worldscope database that are listed on AMEX, NASDAQ and NYSE and received a going-concern audit opinion in the period 1998-2001. Consistent with prior studies (Mutchler and Williams 1990; Behn et al. 2001; Blay and Geiger 2001), we restricted our sample to companies in the manufacturing industries (SIC 20 to 39) to eliminate confounding industry effects. This resulted in an initial sample of 276 manufacturing companies that received a going-concern audit opinion in fiscal years from 1998-2001.

From this initial sample, we then eliminated companies that received a going-concern report in the previous year to control for potential confounding effects from prior going-concern opinions (see also, Mutchler, 1985, Blay & Geiger, 2001; Behn et al., 2001). In addition, we also excluded firms that faced bankruptcy proceedings, as the decision to issue a going-concern opinion is trivial for such firms. This resulted in 73 firms with going-concern opinions: 16 firms in 1998, 11 firms in 1999, 16 firms in 2000 and 30 firms in 2001. Because of the effort involved in manually collecting the strategic data, we further reduced the final sample to 50 going-concern companies.

### *Selection of control firms*

To test our going-concern model, we matched the going-concern sample with a sample of distressed companies that did not receive a going-concern report. We searched the Worldscope database from 1998 to 2001 to identify all manufacturing companies listed on NASDAQ, NYSE or AMEX that received a clean audit opinion. Consistent with prior studies, we further restricted the control sample to firms in financial distress (see, for example, Mutchler, 1985; Chen & Church, 1992; Behn et al., 2001; McKeown et al., 1991). Based on Chen and Church (1992) we adopt the following criteria to identify distressed companies: 1) negative retained earnings, 2) negative operating income, 3) negative net income, 4) negative working capital, 5) negative net

worth, and 6) negative operating cash flows. Note that Chen and Church (1992) classified a company as stressed if it meets at least one of above criteria. We use a more stringent rule for financial distress, by classifying a company to be stressed if it meets at least two of these stress criteria. This procedure yielded 2929 “distressed” companies that received a clean opinion during the period 1998-2001.

As we use a matched-pair design, we matched control-sample companies to the going-concern firms based on year, size (proxied by total assets) and two-digit SIC classifications. This procedure ensures that we include similar companies with respect to size and industry in both sub-samples.

[ INSERT TABLE 2 ABOUT HERE ]

### **Data collection and strategic scorecard**

As strategic company information is not publicly available, we manually collected this information from the relevant 10-Ks filed with the SEC, by reading these documents back-to-cover and completing a strategic scorecard. The strategic scorecard used to test our hypotheses is included in Appendix A. For each of the defined turnaround approaches we assessed whether the company has engaged in actions related to that specific turnaround initiative during the year under audit. Per initiative, a score equal to one is assigned if a firm discloses such action, and zero otherwise.

The suitability of 10-K filings for strategic information collection is supported by prior studies that investigated the association between disclosures in the MD&A and future corporate financial performance. These studies report evidence that indicates that the information content of narrative disclosures in the annual report is significantly associated with future viability of distressed firms (see, for example, Tennyson et al., 1990; Boo & Simnett, 2002). Note also that

SAS no. 8 requires auditors to ensure that the ‘other information’ attached to financial statements is not materially inconsistent with the financial statements, and does not contain any material misstatement or fact. Furthermore, the costs of potential litigation and loss of reputation are important factors to prevent management from disclosing misleading information.

Note that the dependent variable and (most of) the control variables in the model are collected from the WORLDSCOPE data base. The information regarding management's plans to engage in additional borrowings and equity issues is also retrieved from 10K's.

## RESULTS

### **Descriptive statistics and univariate results**

In Tables 3 and 4 we report the descriptive statistics for the test and control variables. The descriptive statistics in Table 3 relate to the full sample (of distressed companies), whereas the descriptive statistics in Table 4 are given for the going-concern and non-going concern samples separately. Table 4 also reports the results of a t-test of differences between the going-concern and non-going concern samples. Inspection of Table 3 reveals that the most common turnaround approaches in our (full) sample of distressed firms are the cost reduction strategy (O-COSTRED, appearing in 62% of the sample firms) and the cooperative strategy (S-COOP, appearing in 59% of the sample firms). All other approaches only occur in between 12 and 32 percent of the sample firms.

The results in Table 4 indicate that the companies that received a going-concern audit report have a significantly lower current ratio (CR, t-statistic = 3.43), are more likely to have a lower current ratio than the industry average value (INDCR, t-statistic = 4.80), are less likely to be in default (DEFAULT, t-statistic = 3.50) and engage less frequently in additional borrowings (BORROWING, t-statistic = 5.17). These results are consistent with going-concern opinions

being issued for distressed companies that face short term liquidity problems. Note that the non-significant differences between the two samples with respect to the other financial distress variables (other than liquidity measures) and total assets are supporting the efficacy of our matching procedures.

Only a few turnaround activities appear to be significantly different for going-concern and non-going concern companies. The strongest result is found for cost-cutting activities which are significantly more common in the sample of going-concern firms (O-COSTRED, t-statistic = 2.53). The aggregate OPERATING variable is also (weakly) significantly higher for the going-concern sample (OPERATING, t-statistic = 1.67). The occurrence of (long-term) strategic activities is not significantly different between going-concern and non-going concern firms.

[ INSERT TABLE 3 ABOUT HERE ]

[ INSERT TABLE 4 ABOUT HERE ]

### **Multivariate logistic analysis**

Our multivariate analyses consist of three logit estimations to assess which strategic and operating variables are significantly different between going-concern and other firms in a multivariate setting, and to test whether these variables have incremental explanatory power beyond the control variables. We choose to estimate a logistic regression analysis (instead of a probit analysis) to neutralize potential problems resulting from oversampling going-concern companies relative to the population proportion. By using logistic regression, the coefficients of the independent variables will not be affected by disproportionate sampling, only the intercept term is affected. However, since we are not obtaining parameter estimates for the purpose of developing a predictive model, the bias in the intercept term has no effect on our analysis

(Maddala, 1991). Furthermore, we also tested whether there are multicollinearity problems between the independent variables that may affect our results. Inspection of the correlation matrix (see Appendix B) indicates that most correlations between the independent variables are below 30 percent. As there are some larger correlations, we also calculated VIF factors, but all VIF scores are below 2.02.

In Table 5 we report the results from our multivariate logistic analyses. We estimate three models. Model 1 is estimated to establish a base model for going-concern opinions based on prior audit opinion studies, and thus mainly includes financial health variables and variables that capture the ability to engage in additional borrowings and stock issues. Models 2 and 3 are estimated to test our hypotheses and assess which strategic variables have incremental explanatory power beyond the control variables. In Model 2 the two summary variables (STRATEGIC and OPERATING) that reflect aggregate measures for the engagement in strategic and operating activities, respectively, are added to the base model. In Model 3 all seven test variables representing the defined strategic and operating activities derived from strategy literature, are included as separate test variables.

[ INSERT TABLE 5 ABOUT HERE ]

Model 1 has good explanatory power with a chi-square statistic equal to 57.97, a pseudo R<sup>2</sup> equal to 37% and a McFadden R<sup>2</sup> equal to 42%. Only the current ratio (CR,  $p < 0.05$ ), operating cash flow over total liabilities (CFOTL,  $p < 0.01$ ), DEFAULT ( $p < 0.05$ ) and BORROW ( $p < 0.01$ ) are significant in a multivariate setting. These results indicate that in a distressed firms' context, poor liquidity is positively associated with the likelihood to receive a going-concern opinion, whereas the ability of a firm to enter in new borrowings is a mitigating factor. Note

again that lack of significance of the other financial variables illustrates the efficacy of our matching procedures.

The explanatory power of Model 2 is comparable to that of the base model, with a chi-squared equal to 60.61, pseudo  $R^2$  equal to 38% and a McFadden  $R^2$  equal to 44%. Including the two summary variables adds no significant explanatory power to the going-concern model. One possible explanation for this result is that auditors do not consider operating or strategic actions when making a going-concern decision. However, this result could also be explained by the fact that not all operating or strategic actions have a similar impact on the going-concern decision, in which case a more detailed analysis is warranted. This is done by estimating Model 3.

We estimate Model 3 in order to investigate the incremental explanatory power of all defined operating and strategic initiatives (see Table 1 for their definitions). Including the individual strategic and operating variables in the going-concern model improves the model's explanatory power, with a model chi-square equal to 69.37 (instead of 57.97 for Model 1), a pseudo  $R^2$  equal to 41% (instead of 37% for Model 1) and a McFadden  $R^2$  equal to 50% (instead of 42% for Model 1).

Of the three defined strategic turnaround variables only S-COOP is significantly negatively associated with the likelihood to receive a going-concern opinion (S-COOP,  $p < 0.05$ ). This result is consistent with the prediction in hypothesis 1 and indicates that companies that entered into cooperative agreements with other firms during the year under audit are less likely to receive a going-concern audit report. This also implies that the presence of cooperative agreements is seen as a positive turnaround signal by the auditor (with favorable liquidity effects already in the next 12 months) and hence can be considered as a mitigating factor. This result is not surprising, as prior research has shown that strategic networks often have positive effects on corporate performance through access to resources and its influence on corporate reputation (Mitchell & Singh, 1996; Powell et al., 1996; Stuart, 2000).

The other two strategic variables, namely the introduction of new products (S-PRODUCTS,  $p = 0.14$ ), and the growth through mergers and acquisitions (S-EXPAND,  $p=0.18$ ) are not significantly associated with the likelihood of receiving a going-concern opinion. Although the signs of the coefficients are not significant in a two-sided test, they are weakly significant in a one sided test, but in the opposite direction as predicted in hypothesis 1. In other words, if taken as a one-sided test, these three variables can be interpreted as factors that increase the likelihood to receive a going-concern opinion. This can be explained by the fact that, in a *distressed firm* context, the presence of recently undertaken long-term strategic actions such as the introduction of new products and the acquisition of another company may be perceived as very risky actions for which the outcome is uncertain. As evidenced by prior research, it is not very likely that an acquisition improves liquidity in the next twelve months. Moreover, acquisitions and mergers are high-risk activities that should be carefully managed in order to create value. Similarly, it is not very likely that the introduction of new products leads to massive positive cash flows in the first year. The success of new product introduction is dependent on market acceptance, which may significantly impact the commercial viability of the new product.

Of the four variables that capture operating initiatives, the cost cutting variable (O-COSTRED,  $p=0.06$ ) is positively and significantly associated with the likelihood of receiving a going-concern opinion. This result is consistent with the evidence in Geiger and Rama (2003). The analysis further indicates that increased marketing (O-COMMERCIAL,  $p=0.14$ , two sided) and upgrading ( $p=0.19$ , two sided) have a similar positive but insignificant (marginally significant) result, indicating that these operating activities increase the likelihood of receiving a going-cocnern opinion. These findings do not contradict our second hypothesis, stating that the operating turnaround strategies do not function as mitigating factors in an audit opinion decision context. We motivated this by evidence from the strategy literature that has reported conflicting impacts of operation turnaround actions on future recovery. However, what we find is even

stronger, that is the implementation of such strategies by distressed firms reinforces the signal that the company faces going-concern problems and therefore increases the likelihood of a going-concern opinion. This is consistent with some evidence in the strategy literature (Sudarsanam and Lai (2001), that companies that only implement operating turnaround actions without implementing (subsequently) strategic turnaround actions have a lower survival chance. Note that we do not find a significant result for O-DISPOSE.

Overall, the evidence that we present suggests that the inclusion of variables that capture strategic and operating turnaround initiatives enhances the explanatory power of going-concern opinion models for distressed firms. Also, the results indicate that cooperative agreements provide positive signals about the going-concern status of the firm and therefore can be interpreted as a mitigating factor, whereas the presence of cost reduction strategies is perceived as an additional going-concern risk factor and increases the likelihood to receive a going-concern opinion. Most (four out of five) other turnaround variables (both strategic and operating) have a positive sign, which is strictly speaking not significant but could be considered weakly significant in a loose (one sided) test. We explain the latter findings by the fact that these approaches are either not capable of generating significant additional cash flows in the next twelve months and on top of that are quite risky (strategic variables), or that they have found not to be associated with recovery in the strategy literature (operating variables).

## **CONCLUSIONS**

In this paper we examine the impact of a broad range of strategic and operating actions on the likelihood that an auditor issues a going-concern audit opinion. We analyse whether certain turnaround activities are functioning as mitigating factors, or whether they are perceived as additional going-concern risk factors. We believe that such an analysis is relevant and possible given developments in auditing methodology towards business risk audit approaches in the

1990's. One of the most innovative aspects of the business risk auditing approach is that it formally incorporates the analysis of strategic risk and management actions into the audit process. We therefore believe that the assessment of client strategic and operating risks and responses is likely to affect the auditor's going-concern decision (either positively or negatively depending on the signal that they send).

Prior studies that assessed the impact of management plans on going-concern decisions (see, for example, Behn et al., 2001; Geiger and Rama, 2003) look at forward-looking plans relating to retrenchment activities and future financing. In this study, we study a more comprehensive set of strategic and operating actions, and also consider long-term strategic turnaround initiatives by including product and technology enhancements, cooperative arrangements with other firms, increasing marketing efforts and growth through acquisitions in our analysis. Consistent with the strategy literature, we classify strategic actions into short-term operating versus long-term strategic approaches. Based on the findings in that literature, we argue that long-term strategic approaches are negatively associated with the incidence of a going-concern opinion or in other words that they have the ability to function as mitigating factors, but only if they are capable of generating an impact within the next twelve months (given the going-concern decision making context). Based on the mixed results in the strategy literature regarding the success of operating turnaround initiatives, we further hypothesize that such activities do not function as mitigating factors in the going-concern audit decision context. We find indeed that cooperative agreements provide positive signals about the going-concern status of the firm and therefore can be interpreted as a mitigating factor, whereas the presence of cost reduction strategies is perceived as an additional going-concern risk factor and increases the likelihood to receive a going-concern opinion. Most (four out of five) other turnaround variables (both strategic and operating) are positively associated with going-concern opinions. We explain the latter findings by the fact that these approaches are either not capable of generating significant

additional cash flow in the next twelve months and on top of that are quite risky (strategic variables), or that they have been reported not to be significantly associated with successful company turnaround in the strategy literature (operating variables).

This study is subject to a number of limitations. First, due to the manual collection of the strategic variables the sample size in this paper is kept rather small (n=100). Further, only companies from manufacturing industries are included in the sample. Third, SAS no. 59 recommends that auditors assess the feasibility of management plans when assessing a client's ability to continue as a going-concern. In this study, we use the disclosure of strategic plans in the annual report and 10-K as our proxy of client strategic activity. As such, we do not actually measure the feasibility of strategic plans.

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TABLE 1: Variable definitions, model specification and expected signs

	Definition	Expected Sign
<i>Dependent variable</i>		
REPORT	1 if going-concern report issued, 0 otherwise	
<i>Independent variables</i>		
<i>Operating approach</i>		
O-COSTRED	1 if the company reports cost reducing activities for the year under audit, 0 otherwise	+
O-DISPOSE	1 if the company reports the sale of assets for the year under audit, 0 otherwise	+
O-COMMERCIAL	1 if the company reports increased marketing efforts for the year under audit, 0 otherwise	+
O-UPGRAD	1 if whether the company reports product and/or process improvements for the year under audit, 0 otherwise	+
OPERATING	Discrete variable (0-4) representing the sum of all operating initiatives	+
<i>Strategic approach</i>		
S-EXPANSION	1 if the company reports acquisitions for the year under audit, 0 otherwise	?
S-COOP	1 if the company entered in cooperative arrangements for the year under audit, 0 otherwise	?
S-PRODUCT	1 if the company reports the introduction of new products for the year under audit, 0 otherwise	?
STRATEGIC	Discrete variable (0-4) representing the sum of all strategic initiatives	-/?
<i>Control variables</i>		
CR	Current ratio	-
LTDTA	Long term debt/ total assets	+
LNTA	Natural log of total assets	-
CFOTL	Cash flow from operations/total liabilities	-
INDCR	1 if company CR exceeds industry median, 0 otherwise	+
CHANGECR	One year change in current ratio	+
DEFAULT	1 if in payment default or technical default of loan covenants, 0 otherwise	+
STOCK	1 if the company plans to sell a significant amount of equity, 0 otherwise	-
BORROW	1 if the company plans to rely on existing loans and credit agreements, 0 otherwise	-

**TABLE 2: Sample companies per two digit industry grouping**

<b>Two-digit SIC Code</b>	<b>Industry name</b>	<b>Number of Companies</b>
20	Food and Kindred Products	6
27	Printing and Publishing	2
28	Chemicals and Allied Products	30
30	Rubber and Miscellaneous Plastic Products	2
33	Primary Metal Industries	2
34	Fabricated Metal Products	2
35	Industrial Machinery and Equipment	10
36	Electronic and Other Equipment	26
37	Transportation Equipment	8
38	Instruments and Related Products	12
		100

**TABLE 3: Descriptive statistics for entire matched sample of distressed companies**

	Mean	Median	Standard Deviation	Minimum	Maximum
<i>Operating approach</i>					
O-COSTRED	0.62	1.00	0.49	0.00	1.00
O-DISPOSE	0.32	0.00	0.47	0.00	1.00
O-COMMERCIAL	0.24	0.00	0.43	0.00	1.00
O-UPGRAD	0.22	0.00	0.42	0.00	1.00
OPERATING	1.40	1.00	0.92	0.00	4.00
<i>Strategic Approach</i>					
S-EXPANSION	0.12	0.00	0.33	0.00	1.00
S-COOP	0.59	1.00	0.49	0.00	1.00
S-PRODUCT	0.32	0.00	0.47	0.00	1.00
STRATEGIC	1.03	1.00	0.83	0.00	3.00
<i>Control variables</i>					
CR	2.79	1.74	3.66	0.21	26.85
LTDTA	0.13	0.02	0.29	0.00	1.97
LNTA	10.37	9.91	1.55	7.06	14.56
CFOTL	-1.28	-0.30	2.14	-10.09	1.28
INDCR	0.30	0.00	0.46	0.00	1.00
CHANGECR	-0.97	-0.47	3.44	-14.48	17.67
DEFAULT	0.36	0.00	0.48	0.00	1.00
STOCK	0.11	0.00	0.31	0.00	1.00
BORROW	0.29	0.00	0.46	0.00	1.00

TABLE 4: Univariate tests of differences between going-concern firms and non-going concern firms

	Non-Going-Concern sample		Going-concern sample		Test of difference (t-statistic)
	Mean	Std. dev.	Mean	Std. dev.	
<i>Operating approach</i>					
O-COSTRED	0.50	0.51	0.74	0.44	2.53**
O-DISPOSE	0.28	0.45	0.36	0.48	0.85
O-COMMERCIAL	0.24	0.43	0.24	0.43	0.00
O-UPGRAD	0.22	0.42	0.22	0.42	0.00
OPERATING	1.24	0.92	1.53	0.89	1.67*
<i>Strategic Approach</i>					
S-EXPANSION	0.08	0.27	0.16	0.37	1.23
S-COOP	0.66	0.48	0.52	0.50	1.42
S-PRODUCT	0.28	0.45	0.36	0.48	0.85
STRATEGIC	0.52	0.80	0.51	0.77	0.92
<i>Control variables</i>					
CR	3.98	4.47	1.60	2.06	3.43***
LTDTA	0.09	0.15	0.16	0.37	1.72
LNTA	10.38	1.52	10.36	1.59	0.08
CFOTL	-1.23	2.07	-1.33	2.24	0.23
INDCR	0.50	0.51	0.10	0.30	4.80***
CHANGECCR	-0.67	4.17	-1.27	2.52	0.87
DEFAULT	0.20	0.40	0.52	0.50	3.50***
STOCK	0.14	0.35	0.08	0.27	0.95
BORROW	0.50	0.51	0.08	0.27	5.17***

\* indicates significance at the .10 level (two-tailed)

\*\* indicates significance at the .05 level (two-tailed)

\*\*\* indicates significance at the .01 level (two-tailed)

TABLE 5: Logistic regression estimates for Models 1, 2 and 3.

Variables	Predicted sign	Model 1			Model 2			Model 3		
		coeff	$\chi^2$	p-value	coeff	$\chi^2$	p-value	coeff	$\chi^2$	p-value
C		-2.00	0.61	0.4355	-2.42	0.86	0.3538	-0.77	0.06	0.8019
CR	-	<b>-0.69</b>	<b>5.26</b>	<b>0.0218</b>	<b>-0.74</b>	<b>6.43</b>	<b>0.0112</b>	<b>-0.92</b>	<b>8.57</b>	<b>0.0034</b>
LTDTA	+	0.58	0.25	0.6200	0.11	0.01	0.9289	-0.45	0.11	0.7387
LNTA	-	0.28	1.30	0.2545	0.24	1.01	0.3152	0.12	0.16	0.6915
CFOTL	-	<b>-0.86</b>	<b>8.75</b>	<b>0.0031</b>	<b>-0.95</b>	<b>9.19</b>	<b>0.0024</b>	<b>-1.17</b>	<b>10.61</b>	<b>0.0011</b>
INDCR	-	-1.38	1.82	0.1773	-1.65	2.37	0.1235	<b>-2.41</b>	<b>3.76</b>	<b>0.0525</b>
CHANGECR	-	0.06	0.23	0.6347	0.06	0.18	0.6738	0.15	1.01	0.3153
DEFAULT	+	<b>1.48</b>	<b>4.81</b>	<b>0.0283</b>	<b>1.31</b>	<b>3.57</b>	<b>0.0587</b>	<b>1.52</b>	<b>3.72</b>	<b>0.0536</b>
STOCK	-	-0.61	0.48	0.4892	-0.96	1.13	0.2872	-0.77	0.63	0.4278
BORROW	-	<b>-2.26</b>	<b>8.26</b>	<b>0.0040</b>	<b>-2.27</b>	<b>7.93</b>	<b>0.0049</b>	<b>-2.23</b>	<b>6.97</b>	<b>0.0083</b>
OPERATING	+				0.61	2.40	0.1216			
STRATEGIC	-				0.11	0.09	0.7636			
O-COSTRED	+							<b>1.39</b>	<b>3.58</b>	<b>0.0586</b>
O-DISPOSE	?							0.15	0.04	0.8492
O-UPGRAD	?							1.12	1.83	0.1762
O-COMMERCIAL	?							1.39	2.12	0.1450
S-COOP	-							<b>-1.71</b>	<b>4.33</b>	<b>0.0374</b>
S-EXPAND	-							1.72	1.76	0.1846
S-PRODUCT	-							1.02	1.75	0.1865
Pseudo R <sup>2</sup>		0.37			0.38			0.41		
McFadden R <sup>2</sup>		0.42			0.44			0.50		
Model $\chi^2$		57.98			60.61			69.37		

p-values are from two-sided tests.

results that are significant at  $p < 0.10$  are printed in bold.

**Appendix A: Strategic Scorecard**

Strategic turnaround strategies		
Cooperation strategy		
2	Long-term contractual agreements	<p>1 if the company engages into one of the following activities during the year under audit:</p> <ul style="list-style-type: none"> <li>- closing long-term contracts with buyers or suppliers during the year</li> <li>- entering into new joint ventures and strategic alliances</li> <li>- entering into new licensing contracts</li> <li>- entering into contracts for components, subassemblies and products</li> <li>- entering into new contracts with distributors</li> </ul>
Product Innovation Strategy		
3	Introduction of new products	1 if the company reports the introduction of new products during the year under audit
Expansion Strategy		
4	Mergers and acquisitions	1 if the company reports horizontal mergers and acquisitions during the year under audit

<b>Operational Turnaround Strategies</b>		
<b>Asset Disposal Strategy</b>		
5	Disposal of assets	1 if the company reports the sale of assets during the year to increase cash flow
<b>Cost Reduction Strategy</b>		
6	Reduce or delay expenditures	1 if the company significantly reduced spending or reports significant employee layoffs during the year to increase cash flow
<b>Commercial Strategy</b>		
7	Increase marketing efforts	1 if the company reports increased advertising, increased direct sales efforts, or changes in marketing programs during the year
<b>Product &amp; Process Improvement Strategy</b>		
8	Technological and/or product upgrading	1 if the company reports improvements to existing products and/or production processes during the year

**APPENDIX B: Correlation matrix**

	REPORT	CR	LTDTA	LNTA	CFOTL	INDCR	CHANGECCR	DEFAULT	STOCK	BORROW
REPORT	1.00									
CR	-0.33	1.00								
LTDTA	0.12	-0.18	1.00							
LNTA	-0.01	-0.20	0.16	1.00						
CFOTL	-0.02	-0.42	0.23	0.46	1.00					
INDCR	-0.44	0.57	-0.13	0.02	-0.31	1.00				
CHANGECCR	-0.09	0.18	0.09	0.12	0.22	0.00	1.00			
DEFAULT	0.33	-0.29	0.18	0.31	0.33	-0.17	0.07	1.00		
STOCK	-0.10	-0.01	-0.07	-0.12	0.00	-0.02	0.07	-0.13	1.00	
BORROW	-0.46	0.12	-0.04	0.28	0.15	0.35	0.03	-0.16	-0.01	1.00
O-COSTRED	0.25	-0.23	0.20	0.27	0.19	-0.16	-0.01	0.33	0.01	-0.14
O-DISPOSE	0.09	-0.26	0.12	0.28	0.27	-0.12	0.06	0.29	0.10	-0.01
O-UPGRAD	0.00	-0.01	0.16	-0.04	0.06	0.07	0.13	0.00	0.04	-0.02
O-COMMERCIAL	0.00	0.03	0.22	-0.22	-0.09	0.14	-0.03	-0.03	0.18	0.05
S-COOP	-0.14	-0.02	0.02	-0.24	-0.03	0.01	-0.02	-0.09	0.23	-0.05
S-DIVEST	0.14	-0.20	-0.03	0.14	0.16	-0.19	-0.01	0.22	0.01	0.02
S-EXPAND	0.12	-0.06	0.03	0.13	0.03	0.03	-0.01	0.17	-0.03	-0.10
S-PRODUCT	0.09	-0.03	0.09	-0.07	-0.01	0.07	0.01	0.07	-0.04	-0.11
OPERATING	0.17	-0.25	0.34	0.17	0.22	-0.05	0.07	0.31	0.16	-0.06
STRATEGIC	0.01	-0.05	0.08	-0.13	-0.01	0.06	-0.01	0.05	0.10	-0.13

	O-COSTRED	O-DISPOSE	O-UPGRAD	O-COMMERCIAL	S-COOP	S-EXPAND	S-PRODUCT	OPERATING	STRATEGIC
REPORT									
CR									
LTDTA									
LNTA									
CFOTL									
INDCR									
CHANGECCR									
DEFAULT									
STOCK									
BORROW									
O-COSTRED	1.00								
O-DISPOSE	0.10	1.00							
O-UPGRAD	0.07	-0.11	1.00						
O-COMMERCIAL	0.01	-0.13	0.15	1.00					
S-COOP	0.02	-0.26	0.20	0.23	1.00				
S-DIVEST	-0.01	0.52	-0.09	-0.17	-0.11				
S-EXPAND	0.10	-0.06	0.03	-0.14	0.06	1.00			
S-PRODUCT	0.01	-0.10	0.05	0.22	0.27	-0.06	1.00		
OPERATING	0.61	0.45	0.51	0.47	0.08	-0.03	0.07	1.00	
STRATEGIC	0.05	-0.23	0.16	0.21	0.76	0.39	0.70	0.08	1.00