
Are firms on the right page with Chapter 11? An analysis of firm choices that contribute to post-bankruptcy survival

Vicki L. Bogan^{a,*} and Chad M. Sandler^b

^a*Charles H. Dyson School of Applied Economics and Management, 454 Warren Hall, Cornell University, Ithaca, NY 14853, USA*

^b*School of Industrial and Labor Relations, Cornell University, Ithaca, NY, USA*

Historically, corporate bankruptcy reorganization has generated varying results with respect to subsequent firm performance. Some firms reorganize effectively and emerge as more efficient and productive enterprises. However, other inefficient companies strive to survive by utilizing the rehabilitative process of Chapter 11; though liquidation might be a more suitable course of action. This study investigates which characteristics of firm performance and Chapter 11 bankruptcy are linked to successful emergence upon reorganization. We find that the strongest contributor to post-bankruptcy survival is having new management in place. This suggests that Chapter 11 can be utilized as an effective rehabilitative tool in the ‘right hands’.

Keywords: corporate bankruptcy; Chapter 11; management turnover

JEL Classification: G33

I. Introduction

*Capitalism without bankruptcy is like
Christianity without hell.*

-Frank Borman

During recessionary times, mere firm survival often takes precedence to return levels for business persons, politicians and citizens alike. While the preponderance of troubled companies during economic downturns can be disheartening, it does not necessarily signal the end.

Firms in the United States have the option to reorganize under Chapter 11 and emerge as efficient enterprises.¹ Yet, various studies of post-reorganization firm returns have demonstrated inconsistent results which serve as a basis for criticism of the US bankruptcy code.

While the introduction of Chapter 11 was meant to rehabilitate (as opposed to liquidate) companies unable to repay their creditors, Hotchkiss (1995) argued that firms emerging from bankruptcy with the same pre-bankruptcy management in place are more likely to

*Corresponding author. E-mail: vlb23@cornell.edu

¹ Chapter 7 bankruptcy or ‘liquidation bankruptcy’ is used by firms past the stage of reorganization that must sell off any unexempt assets to pay creditors. Chapter 11 bankruptcy, also called rehabilitation bankruptcy, allows the firm the opportunity to reorganize its debt and to try to re-emerge as a healthy organization. The firm contacts its creditors in an attempt to change the terms on debt but must continue to pay it back through future earnings.

suffer losses or poor performance.² She explains that incumbent managers of failing companies have their personal reputations and fortunes on the line and as a result tend to favour reorganization rather than liquidation. This self-serving behaviour often leads to the continuation of an inefficient company that continues to endure losses. Conversely, Morrison (2007) showed that continuation bias (i.e. Chapter 11 instead of Chapter 7) is either absent or empirically unimportant for small business bankruptcies.

In contrast to Hotchkiss (1995), Alderson and Betker (1999) also used cash flows measures but found post-bankruptcy companies outperformed their benchmarks. Additionally, Eberhart *et al.* (1999) found large positive returns for 131 companies emerging from bankruptcy between 1980 and 1989. Unlike Dawley *et al.* (2002), who found positive correlations between firm strategic choices and refocusing variables and performance measures, Eberhart *et al.* (1999) stated that companies which change their line of business after emerging from Chapter 11 may face greater value estimation risks.

Denis and Rodgers (2007) found that firms with greater assets are 'more likely to reorganize than to liquidate or be acquired' and that 'higher quality firms and those in higher margin industries spend less time in Chapter 11'.

Given the divergent results from the differing valuation techniques utilized, performance measures used and firm characteristics evaluated, the question of what choice variables most influence post-bankruptcy survival still remains open. With these considerations in mind, the focus of this article is to analyse both firm characteristics and firm choices that influence the post-bankruptcy *outcomes* (as opposed to returns) of publicly traded business in the United States. Specifically, we examine which factors contribute to post-reorganization performance with regard to whether the firm is active after emergence from bankruptcy. We find that the strongest contributor to post-bankruptcy survival is having new management in place. Thus, our results indicate that bankruptcy can be a viable tool for reorganization and rehabilitation, if appropriately implemented.

II. Data

Our sample includes 131 publicly traded companies that reorganized under Securities and Exchange Commission Chapter 11 filings between 1997 and 2002. For each firm, financial data including asset value, net sales, net income and Standard Industrial Classification (SIC) code information from 5 years prior to their Chapter 11 filing through 5 years after their Chapter 11 filing were obtained from Mergent Online and Hoovers. Information concerning duration (in months) of time spent under Chapter 11 bankruptcy protection as well as the subsequent outcome of reorganization (active, merger, acquired, privatized, liquidated, bankruptcy) was collected from S&P Market Insight. Bankruptcy process variables were obtained from the Bankruptcy Research Database and include filing party (debtors or creditors) and filing type (prepackaged, prenegotiated or nonprepackaged/nonprenegotiated).³ Firm management information was obtained from 'The Corporate Library'.

Figure 1 illustrates that the firms in the sample are not concentrated in any one particular industry. Table 1 shows that 97.6% of firms in the sample filed debtor initiated bankruptcies.⁴ Figure 2 shows that 10% of companies in the sample utilized prepackaged filing types. Unfortunately, many companies in the sample that emerge from Chapter 11 invariably fall prey to the same problems that previously plagued them and subsequently liquidate or file bankruptcy again (see Fig. 3). Notably, while only 23.7% of the sample remains active within 5 years after reorganization, 64.9% of the companies exist as a (or some part of a) going concern (active, acquired, merged or privatized) within 5 years of filing for Chapter 11.

Our analysis focuses on three major types of firm choices: management, bankruptcy type and duration and how these factors contribute to firm survival (see Table 2). New management indicates if the CEO has been with the firm for 1 year or less. Table 2 shows that over 23% of the active companies have new management in place while none of the second bankruptcy or liquidated companies have new management. Due to a shift in management-controlled bankruptcies, the

² Post-bankruptcy performance was measured by (1) accounting measures of profitability, (2) whether the firm met cash flow projections in time and (3) whether the reorganized company needed to restructure again.

³ Prepackaged plans for reorganization are prepared by and voted upon by both debtors and creditors prior to entering bankruptcy. Prenegotiated bankruptcy filings are marked by some agreement between debtors and creditors deemed most critical to successful bankruptcy proceedings. Nonprepackaged/nonprenegotiated bankruptcy plans involved little or no agreement between creditors and debtors with regard to a plan to emerge from bankruptcy.

⁴ Debtor filings are referred to as voluntary cases which may reflect some foresight or proactive measures undertaken on the part of management, while involuntary creditor cases may suggest reactive measures on the part of creditors hoping to claim debts.

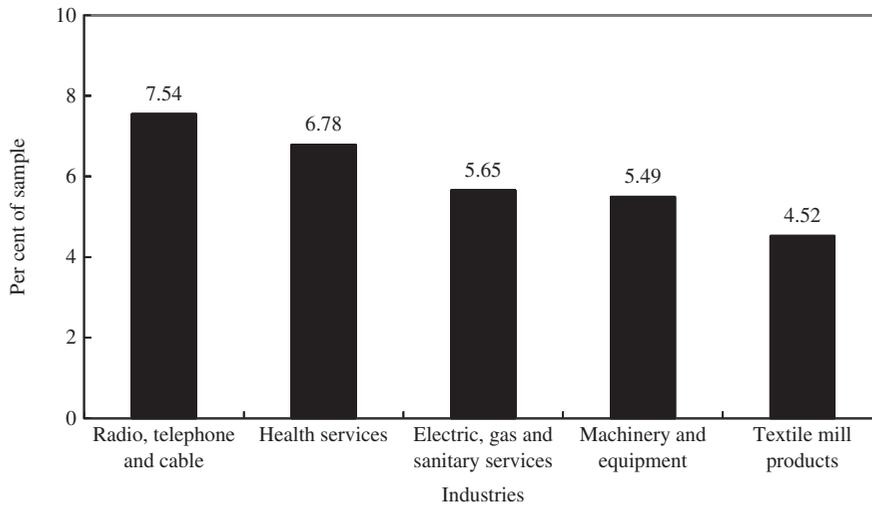


Fig. 1. Top five industries represented in sample

Table 1. Company performance variables

| | Mean |
|---|-----------|
| Net income (\$000) | 47 980 |
| Net sales (\$000) | 1 249 277 |
| Total assets (\$000) | 1 559 854 |
| Time spent under bankruptcy protection (months) | 15.1 |
| Per cent debtor filed bankruptcies | 97.6 |
| Per cent prepackaged bankruptcies | 9.4 |
| Per cent active after 5 years post bankruptcy (%) | 23.7 |
| Observations | 970 |

percent of firms with new management for the time period in our sample is substantially smaller than for other time periods studied.⁵

III. Econometric Analysis and Results

To evaluate the firm characteristics which are linked to successful emergence from bankruptcy, we utilize a probit regression model in which the dependent variable is a dummy variable for outcome (active dummy variable or second bankruptcy/liquidated dummy variable) post bankruptcy.⁶ The model specification is

$$y_{it} = \sum_{k=1}^K \beta_k X_{ikt}$$

where X_{ikt} contains company characteristic variables: prepackaged filing type dummy variable, prenegotiated filing type dummy, new management dummy variable, log of assets, log of net income, log of net

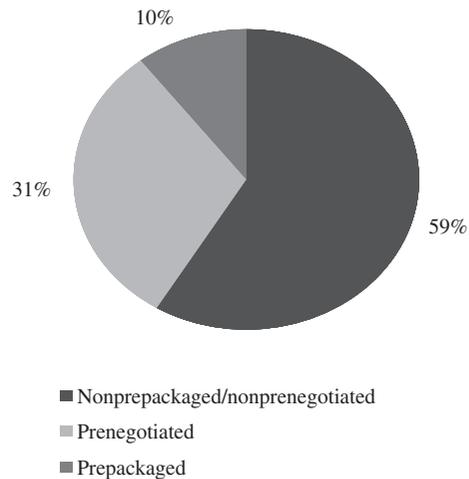


Fig. 2. Bankruptcy filing type

⁵ The sample in Hotchkiss (1995) had management turnover in nearly 70% of reorganized firms spanning 1979–1988 during the leverage buy-out boom of the 1980s. During this period of corporate raiding and intense competitive pressure to buoy stock prices, profitable healthy firms entered bankruptcy with the intention of being liquidated. Other companies were forced into bankruptcy after pursuing defensive poison pill strategies. Though liquidations through leveraged buy-outs were debtor controlled, they are not truly management prerogatives, despite high management turnover.

⁶ Due to the small number of second bankruptcy and liquidation observations, we combine these outcomes for the probit regression.

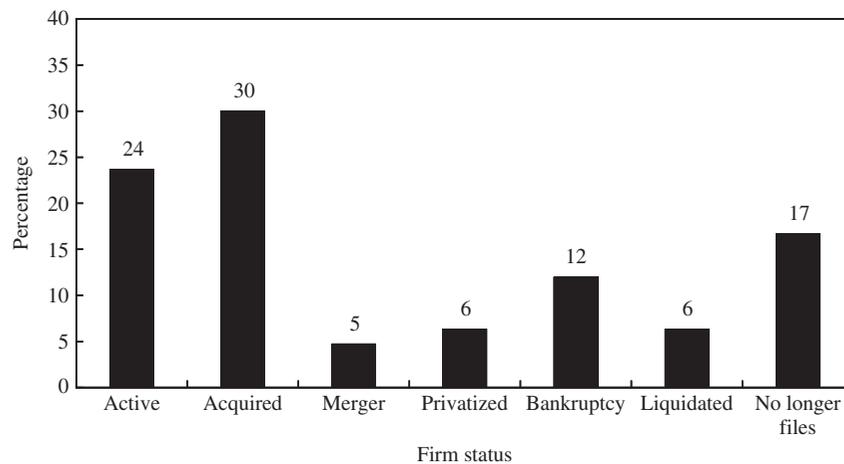


Fig. 3. Bankruptcy reorganization outcomes 5 years post bankruptcy

Table 2. Firm choices and outcomes – summary statistics

| Choice variable | Active | Second Bankruptcy | Liquidated |
|---|--------|-------------------|------------|
| Per cent with new management | 23.3 | 0.0 | 0.0 |
| Average time spent in bankruptcy (months) | 13.6 | 16.1 | 9.5 |
| Per cent with prepackaged filing type | 7.1 | 9.7 | 0.0 |
| Observations | 308 | 72 | 20 |

sales, time spent under bankruptcy protection, electric, gas and sanitary services industry dummy variable and year dummy variables.⁷

The first two columns of Table 3 provide results from probits in which the dependent variable is a dummy variable for active firm post bankruptcy. The first column includes firm characteristic control variables while the second column includes a new management dummy variable.⁸ Time spent under bankruptcy protection is weakly significantly related to the probability of post-bankruptcy survival in the first column and significantly increases the probability of post-bankruptcy survival in the second column. Having new management dummy variable increases the probability of being an active firm post bankruptcy by 0.0451 and is significant at the 1% level. This result indicates that new management is critical to post-bankruptcy firm survival. Moreover,

this result is consistent with the Hotchkiss (1995) finding that firms emerging from bankruptcy with the same pre-bankruptcy management are more likely to perform poorly. Indeed, efforts to restructure a company or to identify recurring problems may be thwarted by pre-bankruptcy management that feel responsible for and thus defensive about the distressed performance. A new CEO, likely lacking a golden parachute or vested personal interest in the company, may be better suited to lead a restructuring or refocusing of business lines which has been shown by Dawley *et al.* (2002) to increase post-reorganization performance.

From column 3 of Table 3, one can see that time spent under bankruptcy protection is positively associated with the probability of the firm being liquidated or entering bankruptcy a second time and is significant at the 5% level. An interpretation of the association between time spent under bankruptcy and likelihood of liquidation is that the current bankruptcy code may allow insolvent firms to operate longer than they should. A frequent criticism of Chapter 11 is that it creates some structural inertia as firms that should be liquidated expediently are instead put on ‘life support’.

IV. Conclusions

During economic downturns firm survival is often deemed to be paramount to return levels (see, e.g. de la Merced and Glater (2009)). Thus, an understanding

⁷ During the time period studied, Enron and similar companies in the electric, gas and sanitary services sector represent major outliers due to the unusual market activities and corporate malfeasance in this sector. Since this sector comprises over 5% of the sample, we include a dummy variable for this sector (4900s SIC Codes).

⁸ CEO tenure data were available for a subsample of our data set. Due to sample size limitations, these control variables could not be combined into a single probit regression.

Table 3. Firm outcome probit regressions—marginal effects

| | Active post bankruptcy | | Second bankruptcy/liquidated |
|-------------------------------|------------------------|----------------------|------------------------------|
| | Financial controls | Management controls | |
| Time spent in bankruptcy | 0.0111 (0.0067) | 0.0176* (0.0150) | 0.0049* (0.0034) |
| Prepackaged dummy | -0.0850 (0.2081) | | 0.2296 (0.2183) |
| Prenegotiated dummy | | 0.1297** (0.0806) | 0.0990 (0.1042) |
| Log of assets | -0.2314* (0.0965) | | 0.0027 (0.0117) |
| Log of net income | 0.0431 (0.0405) | | |
| Log of net sales | 0.0322 (0.0326) | | |
| New management dummy variable | | 0.0451* (0.0427) | |
| Year dummy variable controls | Yes | Yes | Yes |
| Observations | 73 | 75 | 84 |
| Log likelihood | -27.9146 | -16.3328 | -13.2826 |

Notes: SEs in parentheses.

* and **Significant at the 1% and 5% levels, respectively.

of the choice variables that facilitate post-Chapter 11 firm survival (as opposed to performance) is vital to the US economy. Our results indicate that time spent under bankruptcy protection is not necessarily the most important metric for evaluating the ‘success’ of Chapter 11 as a rehabilitative process. There is evidence of a positive link between bankruptcy duration and the probability of being active post bankruptcy. However, our research also suggests that longer periods of recovery in bankruptcy protection are positively correlated with secondary bankruptcies and liquidations.

The strongest contributor to post-bankruptcy survival is having new management in place. Thus, our results indicate that in the ‘right hands’, bankruptcy is a viable tool for reorganization and rehabilitation. Carefully planned, surgical bankruptcies or prepackaged bankruptcies increase the probability of successful outcomes. Additionally, newly appointed leaders at the helm of these corporations have the ability to pursue novel strategies and refocus efforts without the same public scrutiny and second-guessing that may plague the previous management.

Moreover, these executives offer fresh insight and valuable outside perspectives imperative for corporate turnarounds.

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