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Reporting Discretion and the Choice of Fresh Start Values in Companies Emerging from Chapter 11 Bankruptcy

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Abstract. Using a sample of seventy-two firms that adopted *fresh start reporting* upon their emergence from Chapter 11 bankruptcy, I test whether management estimates of fresh start equity values are misstated and whether such misstatements are related to characteristics of individual firms' bankruptcy process. I predict that the reported fresh start value reflects a tension between managerial incentives to promote the acceptance of the plan of reorganization, and incentives to enhance future reported performance. I test whether the tendency to overstate the fresh start equity value is increasing in factors affecting the acceptance of the reorganization plan (i.e., bankruptcy claimants' relative bargaining power) and decreasing in factors affecting postbankruptcy reported performance (i.e., the probability of future losses). I find that, relative to the market value of equity immediately after emergence from Chapter 11, the fresh start equity value is, on average, understated by about 4%. The difference between the fresh start equity value and market value also exhibits significant cross-sectional variation (an average absolute error of 11%). Consistent with my first prediction, the misstatement is increasing in the relative bargaining power of junior claimants. In contrast to my second prediction, the misstatement is also increasing in the likelihood of future reported losses. This result suggests that firms that are more likely to experience postbankruptcy financial distress are more concerned with obtaining acceptance for their plan than with the effects of the fresh start equity value on postbankruptcy performance. Finally, I document that the misstatement in the fresh start equity value is negatively related to whether firms have undergone prepackaged bankruptcies, and positively related to replacement of a prebankruptcy CEO.

Keywords: reporting discretion, fresh start, bankruptcy

JEL Classification: G33, M41, M43

Statement of Position No. 90-7 (SOP 90-7), *Financial Reporting by Entities in Reorganization under the Bankruptcy Code,* requires firms in Chapter 11 bankruptcy to estimate and report the fair value of the assets, liabilities, and equity of the entity that is expected to emerge from bankruptcy. Firms are required to report these fair value estimates in pro forma financial projections submitted to the bankruptcy court during negotiations, and to record these estimates as opening balances in the reorganized entity's financial statements upon emergence from bankruptcy. This procedure is called *fresh start reporting* (FSR). This study employs a sample of firms that adopted FSR upon their emergence from Chapter 11 bankruptcy to examine the extent to which managers exercise discretion in reporting the fresh start value of equity, and to investigate whether the cross-sectional variation in these misstatements is related to the characteristics of the individual firms' bankruptcy process.

Management's use of reporting discretion to affect economic circumstances has been a central issue for accounting researchers (Healy and Wahlen, 1999). This is primarily because of the important implications of this research for investors' assessment of the usefulness of the financial statements and for standard setters' assessment of management judgment in financial reporting. Research on reporting discretion is particularly important within the context of FSR for two fundamental reasons. First, management's reported estimate of the fresh start value of equity plays a vital role during bankruptcy negotiations, as it generally serves as the basis for determining the value of the firm, which is then allocated among the various bankruptcy claimants. This role affects negotiations on the amounts and form (i.e., cash, new debt, or new equity) of the distributions to the various claimants, and, in turn, impacts the probability of acceptance of the reorganization plan and the ultimate success of the reorganization (Jensen, 1991; Franks and Torous, 1989). Second, in the environment of fresh start reporting, managers typically possess much better knowledge of the true value of the firm than do others (Bebchuk, 1988; Wruck, 1990) and thus enjoy considerable reporting discretion. This discretion arises because the fresh start equity value estimate is based on forecasts and projections, rather than on arm's-length transactions.

Using the market value of equity immediately after emergence from Chapter 11 as a measure of a firm's intrinsic value, I find that the fresh start equity value is, on average, understated by about 4% and that the average absolute difference between the fresh start and market values is about 11%. Further, the misstatement (the difference between the fresh start equity value and market value) exhibits a large cross-sectional variation, with an interquartile range of about 18%, reaching a minimum of −48% and a maximum of 28%.[1] These results suggest that managers use discretion in the determination of the fresh start equity value and that the incentive to misstate fresh start equity values varies across firms.

I next examine the determinants of the cross-sectional variation in the misstatement. I argue that management's reporting choice generally reflects a tension between an incentive to promote acceptance of the reorganization plan by overstating the firm's equity value, and an incentive to enhance postbankruptcy reported performance by understating this value. As for the first objective, overstating the fresh start equity value can increase the likelihood of emergence from bankruptcy by advancing management's efforts to convince the court and the creditors that the firm's prospects are favorable. Also, higher fresh start equity estimates essentially increase the "size of the pie" that can be allocated among the various claimants, thereby allowing management to offer payouts to claimant classes who might otherwise get little or nothing.[2] I predict that, cross-sectionally, the incentive to overstate the fresh start value will depend on the relative bargaining power of the various claimant classes in bankruptcy negotiations.

Management's second objective—enhancing postbankruptcy reported performance—in contrast, is attained by understating the fresh start equity value, which serves as the "opening balance" for the book value of equity upon emergence from Chapter 11. Setting a relatively low fresh start equity value will assist in achieving this goal by improving earnings-based and equity-based measures of performance. I predict that, cross-sectionally, the incentive to understate the fresh start estimate depends on factors related to firms' future expected reported performance. In particular, I expect firms that have a greater probability of reporting future losses to understate the fresh start equity value to a greater extent than other firms.

My findings are consistent with the first prediction in that the misstatement in the fresh start equity value is increasing (that is, there is a greater overstatement or smaller understatement) in the relative bargaining power of the bankruptcy claimants (as measured by the number of claimant classes allowed to vote on the reorganization plan, the amount of prepetition debt, and the percentage equity ownership of former junior classes in the reorganized entity). In contrast with my second prediction, though, the misstatement is found to be increasing in the probability of future reported losses. A possible explanation for this result is that the managers of firms that are more likely to report losses are more concerned about obtaining acceptance for their plans than about postbankruptcy reported performance. Finally, I find that firms that kept their CEO throughout the bankruptcy as well as those that used a prepackaged form of bankruptcy (instead of a regular form) have a greater understatement in their fresh start equity estimates.[3]

The related literature is discussed in Section 2, and the institutional background is described in Section 3. Section 4 develops the cross-sectional hypotheses. Section 5 describes the sample and the data used in the empirical analyses. The results of the empirical tests are reported in Section 6. Section 7 presents a summary and conclusions.

1. Related Literature

The research on managers' discretionary accounting choices examines various factors that motivate managers to exercise judgment over reported accounting numbers: the desires to affect the market's assessment of the company's performance, to avoid violation of debt covenants, to increase accounting-based compensation, to reduce political or regulatory pressure, or to communicate private information to external users.[4]

Studies that have analyzed discretionary accounting choices of managers in financially troubled firms typically focus on the manipulation of income or accruals to avoid violation of debt covenants or to minimize the cost of violation. For example, Beneish and Press (1993), DeFond and Jiambalvo (1994), and Sweeney (1994) examine accounting choices for firms that have reported debt covenant violations and find evidence consistent with income-increasing accounting policies in years prior to the violation. Sweeney (1994) also finds that income-increasing accounting changes typically occur after the violation, indicating that some changes are aimed at reducing the likelihood of future violations rather than avoiding current violations. Examining firms in regulated industries, Petroni (1992) shows that financially weak insurers bias downward their estimates of claim loss reserves relative to those of other insurers, whereas Moyer (1990) provides evidence that is generally consistent with the hypothesis that commercial bank managers adjust accounting measures to increase the primary capital adequacy ratio when this ratio declines toward its regulatory minimum. Other studies (for example, DeAngelo et al., 1994; Healy and Palepu, 1990) find no significant changes in accounting policies for firms that have been close to violating debt or dividend covenant restrictions.

The current study contributes to the literature on managers' discretionary accounting choices in three ways. First, it provides evidence on a previously unexplored, bankruptcy-related, motive for managerial discretion in accounting choices. In light of the ongoing debate on management discretion, and concerns about the increasing practice of earnings management (Levitt, 1998), it is important to explore new settings in which management has the opportunity to exercise reporting discretion. Such analysis can contribute to a better understanding of the motives, magnitude, frequency, and economic consequences of management's discretionary accounting choices.

Second, this study focuses on the use of reporting strategies to *advance* the resolution of financial troubles for firms that file for bankruptcy. In contrast, the literature most often looks at the use of reporting strategies to *mask* financial distress and to portray the firm as less troubled.

Finally, this study identifies factors affecting management's reporting incentives within the setting of corporate reorganizations, such as the claimants' relative bargaining power and firms' expected performance, and tests whether these factors are related systematically to the misstatement in the estimate of fresh start equity.

2. Institutional Background

2.1. Reorganization under Chapter 11

Under the Bankruptcy Reform Act of 1978, a financially distressed firm can file a petition for relief under Chapter 11 of the Bankruptcy Code. Chapter 11 provides for reorganization, such that the firm (the debtor) continues to exist without liquidating its assets. Once a petition is filed, an *automatic stay* is imposed, preventing creditors from collecting their debts or seizing the firm's assets while the debtor is attempting to restructure.

While in Chapter 11, management remains in control of the company and formulates a reorganization plan to restructure the company's debt and equity interests. The plan assigns claimholders to classes according to the characteristics of their claims and describes the proposed distributions to these claimants. A plan may extend the time for payment of the debtor's obligations, reduce the amounts of those obligations, compel creditors to accept stock in full or partial payment of their rights, or even cancel stock or obligations without compensation. The plan also provides a detailed description of the entity that will emerge as the continuing, operating firm.

The company has an exclusivity period of 120 days after the initial filing for bankruptcy protection to submit a reorganization plan to the court. The debtor and the creditors then enter into negotiations on the specific terms of the plan. These negotiations can lead to the submission of a revised reorganization plan.

The bankruptcy court confirms a reorganization plan if it satisfies three requirements: (1) a two-thirds majority of each class of *impaired* claimants accepts the plan (unimpaired classes whose contractual rights are not altered by the plan are not allowed to vote on the plan), (2) each dissenting claimant receives at least the amount that it would have received in a Chapter 7 liquidation (the so-called *best interest of creditors test*), and (3) the plan is feasible, that is, confirmation of the plan is not likely to be followed by a liquidation or a need for further financial restructuring. Once the bankruptcy court confirms the plan, it becomes binding on *all* creditors and shareholders, even those who did not accept the plan or were impaired under the plan.[5]

2.2. Financial Reporting for Firms Emerging from Chapter 11 Bankruptcy

SOP 90-7, *Financial Reporting by Entities in Reorganization under the Bankruptcy Code,* governs the financial reporting for entities that (1) have filed petitions with the bankruptcy court and expect to reorganize as going concerns under Chapter 11, and (2) have emerged from Chapter 11 under court-approved plans for reorganization. It applies to entities that filed petitions under the Bankruptcy Code in fiscal years beginning after December 15, 1990, or whose plans of reorganization were confirmed after December 31, 1991. Before the issuance of SOP 90-7, there was no prescribed accounting for reorganization under Chapter 11, and entities emerging from bankruptcy could have chosen the procedure described in ARB 43, *Quasi-Reorganization or Corporate Readjustment* (see Davis and Largay, 1995 for a description of this practice).

According to SOP 90-7, entities emerging from Chapter 11 must adopt fresh start reporting as of the effective date of the reorganization plan if *both* of the following conditions are met:

1. The reorganization value of the emerging entity is less than the total amount of all postpetition liabilities plus all allowed prepetition liabilities, and
2. Prepetition voting shareholders receive less than 50% of the voting shares in the new entity.

The first condition requires the firm to be insolvent immediately before emerging from Chapter 11. It prevents the use of FSR by firms that have filed for Chapter 11 for strategic (as opposed to financial) reasons. Since any negative equity is eliminated in FSR, this condition also ensures that the negotiations lead to writedowns of debt.[6] The second condition ensures that a change of ownership occurs and that there is a new set of shareholders. The entity emerging from reorganization is then deemed to be sufficiently distinct from the old entity such that a fresh start basis of accounting is appropriate for the entity's assets and liabilities.

Under FSR, the reorganization value of the emerging entity is computed and allocated to identifiable assets using the techniques provided for applying the purchase method, as discussed in APB 16, *Business Combinations*. SOP 90-7 allows flexibility as to the valuation method to be used and only suggests using the discounted cash flows method. As part of the revaluation, SOP 90-7 allows the recognition of a reorganization goodwill—"reorganization value in excess of amounts allocable to identifiable assets"—which is amortized in conformity with the guidance in APB 17, *Intangible Assets*. The fresh start value of liabilities is set to the present value of the amounts to be paid per the agreements between the debtor and the creditors. Finally, the fresh start value of equity is recorded as the difference between the fresh start value of assets and liabilities.[7]

3. Determinants of the Misstatement in the Fresh Start Equity Value

Underlying the development of hypotheses on the determinants of the reporting choice of the fresh start equity value is the assumption that management prefers reorganization to liquidation. This assumption is reasonable given the potential managerial benefits to reorganization (such as possible job retention and enhanced managerial reputation) and the significant costs associated with bankruptcy (for example, professional fees and the decline in asset value). This assumption finds further support from a bankruptcy rule that allows for any party-in-interest to request the court to replace current management and appoint a trustee for reasons that include management fraud, incompetence, or gross mismanagement of the debtor's affairs (Bankruptcy Code Section 1104).

One way in which the management of a bankrupt firm can expedite plan acceptance and emergence from bankruptcy is through the value it places on the reorganized entity (Bebchuk, 1988; Wruck, 1990; Jensen, 1991; Franks and Torous, 1989). Management has flexibility in determining this value because it typically enjoys a significant information advantage over the creditors and the court about the firm's economic operating conditions. This advantage is particularly pronounced during bankruptcy because of the control that Chapter 11 gives managers over much of the reorganization process, the uncertainty over the value of the reorganized company, and the relative scarcity of external sources of information about the firm.[8] Creditors and the court, in turn, typically do not have reliable information about the firm's prospects and rely on management's estimate as the basis for negotiating the amounts and form of the payouts (see, for example, Jensen, 1991; Senbet and Seward, 1995; Gilson et al., 2000).[9]

Earlier studies focus primarily on managers' general incentives in determining the value of the reorganized firms, but I focus on the determinants of the *variations* in such incentives. Specifically, I examine whether management's tendency to use its reporting discretion in determining the fresh start equity value varies with certain characteristics of the firm's bankruptcy case. To a lesser extent, I explore whether such estimates are, on average, misstated. As I describe in detail below, I predict that two characteristics will be associated with the cross-sectional variation in fresh start equity misstatements: the relative bargaining power of the claimants in the bankruptcy negotiations and the firm's expected future reported performance after emergence from bankruptcy.

3.1. Impaired Claimants' Relative Bargaining Power

A primary factor affecting the acceptance of the reorganization plan and emergence from bankruptcy is the relative bargaining power of the impaired claimants (see, for example, Jensen, 1991; Deis et al., 1995; Butler, 2000). Greater bargaining power for these claimants generally results in more complex and prolonged bankruptcy negotiations, because a consensus among the constituencies is more difficult to achieve. Such bankruptcy cases are typically characterized by a relatively large number of claimant (voting) classes, or larger dollar amounts of debt to be renegotiated, or both (Betker, 1995). A larger number of voting classes requires management to negotiate with and obtain approval from a larger number of self-interested parties before emerging from Chapter 11.[10] Since firms cannot leave Chapter 11 insolvent, a larger amount of debt (or a greater insolvency) at the onset of the bankruptcy requires a firm to obtain larger concessions from its creditors before emerging from bankruptcy.

In cases characterized by stronger claimant bargaining power, management has more incentive to promote the acceptance of the plan by overstating the value of the reorganized equity.[11] Overstated estimates are used to convince creditors and the court that the firm's value is high enough to warrant reorganization rather than liquidation. Overstated values can also assist managers in persuading some creditor classes to accept equity in the reorganized entity in exchange for their old debts, and in assuring others of the firm's ability to service the new debt securities. Finally, since junior classes (such as unsecured creditors and existing shareholders) generally receive little or no payout on their claims but must formally approve the reorganization plan, overstating the firm's value disproportionately increases the amounts accruing to them. Thus, an overstated estimate is likely to make these classes more amenable to accept the plan and, more importantly, to remove any legal basis for their objections.[12] This discussion leads to the following prediction:

H1: The misstatement in a firm's fresh start equity value is positively related to claimants' relative bargaining power.

I use three proxies to measure claimants' relative bargaining power. The first two are the number of claimant classes allowed to vote on the plan (*VOTE*) and the firm's debt-to-asset ratio at the onset of bankruptcy (*DEFICIENCY*). These proxies have been used in prior studies (for example, Weiss, 1990; Franks and Torous, 1994; Betker, 1995). The third proxy is a measure of the payout to former junior claimants, defined as the percentage of ownership in the reorganized entity allocated to former unsecured creditors and former shareholders (*OWNERSHIP*). Since a greater overstatement allows management to offer more equity to the lower-priority classes, I expect a positive relation between the misstatement in the fresh start equity value and the ownership interest of former junior claimants in the reorganized entity.

3.2. Firms' Expected Postbankruptcy Reported Performance

The fresh start equity value also serves as the opening balance of the book value of equity upon the firm's emergence from Chapter 11. A lower estimate can improve book value-based measures of performance (such as return on equity), thereby enhancing managers' reputations and any accounting-based compensation. All else being equal, managers who have a preference for reporting more favorable postbankruptcy results are likely to understate the fresh start equity estimate. In particular, firms that emerge from bankruptcy with a greater probability of reporting future losses should exhibit a greater understatement in their fresh start equity estimate. Accordingly, I predict that:

H2: The misstatement in a firm's fresh start equity value is negatively related to the probability of reported losses after emergence from bankruptcy.

Two measures are used to capture an emerging firm's probability of future losses. The first is an index of financial condition based on Zmijewski's (1984) weighted probit bankruptcy prediction model.[13] In the present study, Zmijewski's model serves both as a comparative measure of a firm's probability of reporting postbankruptcy losses and as a measure of the degree to which Chapter 11 bankruptcy has reduced the probability of a *recurrence* of financial difficulties. The financial condition measure is computed using the weighted probit coefficients from Zmijewski's Table 3, panel B:

$$B^{*} = -4.803 - 3.599\frac{\textit{Net Income}}{\textit{Total Assets}} + 5.406\frac{\textit{Total Debt}}{\textit{Total Assets}} - 0.1\frac{\textit{Current Assets}}{\textit{Current Liabilities}}$$

where B^{*} is a standard normal variable.[14] The financial condition variable (*FUTURE*) is computed by transforming B^{*} into a probability of future financial distress. All else equal, firms emerging with higher values of *FUTURE* (that is, higher probabilities of future financial distress) are expected to be associated with a greater understatement in the fresh start equity value.

The second measure of a firm's probability of reporting future losses is the prospects in its industry. John et al. (1992) document that among distressed firms, common reasons given for negative earnings are poor economic conditions and effective competition. Hotchkiss (1993) notes that industry condition is a good indicator of a bankrupt firm's prospects for returning to profitability and finds a positive relation between postbankruptcy industry performance and the probability of a second bankruptcy. If industry problems contribute to firms' declines, then firms' postbankruptcy reported performance is likely to be positively associated with future industry health. Accordingly, I expect an association between firms that emerge into more troubled industries and a greater understatement in the fresh start equity value. Relatively understated estimates will enable firms to report higher future earnings, thereby mitigating potential detrimental effects of industry declines on reported performance. Industry prospects are measured by the median industry return on assets in the year of emergence (*INDUSTRY*). An industry is defined as all firms having the same two-digit SIC code as the sample firm.[15]

3.3. Control Variables

My analysis also includes an indicator variable for prepackaged bankruptcy cases and control variables for management turnover and size. A prepackaged bankruptcy attempts to combine the time and cost savings of an out-of-court restructuring with the benefits of Chapter 11 reorganization (Tashjian et al., 1996). It involves negotiations and acceptance of the plan by the creditors *before* the actual filing, so that the formal petition for Chapter 11 is accompanied by the plan of reorganization, the disclosure statement, and the results of the voting. Confirmation of the plan by the court and emergence from bankruptcy typically take from one to three months.

In a prepackaged bankruptcy, the formal filing occurs after negotiations are concluded and an agreement is reached between the debtor and most creditors. In this case, management has little incentive to overstate the fresh start equity value. To control for the possibility that the form of bankruptcy affects management reporting incentives, the analysis includes an indicator variable for the form of bankruptcy (*PREPACK*).

Earlier studies document that management turnover during bankruptcy is related to firms' postbankruptcy performance. For example, Hotchkiss (1995) finds that *ex-post* deviations of earnings projections made during Chapter 11 from actual postbankruptcy results are significantly more negative for firms that had retained their pre-restructuring CEO than for firms that had replaced their CEO. In contrast, using a later sample of firms, Hotchkiss and Mooradian (1997) find an insignificant relation between post-restructuring performance and retention of the pre-restructuring CEO, and Alderson and Betker (1999) find no relation between postbankruptcy cash flow-based performance and management changes.

These studies raise the possibility that management turnover during bankruptcy is related to the cross-sectional variation in the misstatement.[16] To test this possibility, my analysis includes an indicator variable that assumes a value of 1 if the prebankruptcy CEO was replaced during the two years before the Chapter 11 filing and negotiation on the plan of reorganization, and 0 otherwise (*CEO*).

Finally, earlier studies suggest a link between the size of the bankrupt firm and the likelihood of emergence from bankruptcy. For instance, LoPucki and Whitford (1993) show that the largest public companies almost always have their reorganization plans confirmed, while Hotchkiss (1993) finds that larger firms tend to emerge from Chapter 11 rather than to liquidate under Chapter 7. To control for a possible effect of firm size on the misstatement, my analysis includes a size measure defined as the sum of fresh start total debt and market value of equity immediately after emergence from bankruptcy (*SIZE*).

3.4. Measuring the Misstatement in the Fresh Start Equity Value

The empirical proxy of the misstatement in the fresh start equity value is the difference between a firm's reported fresh start equity value and the market value of equity immediately after emergence from bankruptcy. Accordingly, the estimate of fresh start equity is deemed to be overstated (understated) if the initial market value is smaller (greater) than the fresh start equity value.

Using market value of equity as a measure of a firm's intrinsic equity value as it emerges from bankruptcy implicitly assumes that market value represents an unbiased estimate of true equity value. Evidence in support of this view is provided by a number of studies. For example, Eberhart et al. (1999) examine the extent to which stocks of firms are efficiently priced on the first trading days after emergence from bankruptcy and find insignificant evidence consistent with mispricing on the first two days. Butler (2000) finds that in the month following the emergence from bankruptcy the market does not appear to change its initial valuation relative to the initial fresh start value. Alderson and Betker (1999) examine the postbankruptcy cash flow return to pre-emergence claimholders for a sample of firms completing Chapter 11 reorganization between 1983 and 1993. They find that, on average, this return matches the performance of benchmark portfolios during the five years following emergence, and that the reorganized firms neither underperform nor outperform the benchmark. They interpret their results as evidence that the market accurately assesses a firm's prospects at the time it emerges from bankruptcy and accurately discounts any misstatements in management bankruptcy projections. Finally, Lehavy (1999) relies on evidence in the present study to motivate an examination of the effects of the misstatement in the initial fresh start value of equity on the association between stock returns and subsequently reported accounting numbers. He finds that, even two years after the emergence from Chapter 11 and the adoption of FSR, investors appear to adjust for the effect of the initial misstatement on book values and earnings reported subsequent to the adoption of FSR.

The use of market value as a benchmark for intrinsic value is also consistent with research that examines the accuracy of fair value accounting estimates (for example, Bernard et al., 1995; Barth et al., 1996). An added advantage of using market value as a proxy for a firm's true value in the context of FSR is that, in the absence of intentional misstatements, the fresh start value is expected to be an unbiased measure of a firm's true value (as of the emergence date). This is because FSR requires firms to estimate and record all assets and liabilities of the emerging firm at their *fair* values. This requirement implies that tangible and intangible assets (including the fair value of goodwill) are recorded at their estimated fair values, while liabilities existing at the fresh start adoption date are recorded at the present values of amounts to be paid. Accordingly, in the absence of intentional misstatements, fresh start equity value and initial market value should not differ systematically from each other as of the emergence date.[17]

4. Sample Selection and Descriptive Statistics

I obtained an initial sample of 295 firms that emerged from Chapter 11 between 1991 and 1994.[18] This sample represents all firms that exited from Chapter 11 as either public or private companies, or were liquidated or merged/acquired upon emergence. From this initial sample, 133 firms were excluded because no postbankruptcy financial data were available; most likely, these firms exited bankruptcy as private entities, were liquidated, or were acquired/merged immediately upon emergence.[19] Firms that ceased to exist as independent reporting entities were not subject to FSR, and their exclusion has no effect on the size of the sample of fresh start adopters. Firms that emerged as private entities might have been subject to FSR, but their financial information is unobtainable.

An additional 31 firms were excluded because they did not adopt FSR upon their emergence from Chapter 11. Another 29 firms adopted FSR, but the data needed to determine their fresh start values are not available (postbankruptcy stock price information was not available for 27 firms). Finally, 3 firms were dropped because they made a second filing for Chapter 11 within the sample period. These search criteria yielded a final sample of 72 firms that emerged from Chapter 11 and applied fresh start reporting in accordance with SOP 90-7.

Data related to the Chapter 11 proceedings are obtained from the plan of reorganization and the disclosure statement (obtained directly from the firms), the *Bankruptcy DataSource,* the *Capital Changes Reporter,* and *The Bankruptcy Yearbook and Almanac*. Financial and stock price data are obtained from the *Compustat* and *CRSP* databases.

Untabulated descriptive statistics indicate that the 72 sample firms have 30 different two-digit SIC codes. Most industries are represented by one to four firms. The largest industry concentration is General Merchandise Stores (SIC 53), with seven firms; the second largest is Industrial Machinery and Equipment (SIC 35), with five firms.

Table 1 reports balance sheet items immediately before and after recording the effect of the plan of reorganization and adoption of FSR. Total assets were not significantly altered as a result of the plan of reorganization and adoption of FSR. Mean total assets decreased by a statistically insignificant $15 million. As expected from firms exiting Chapter 11, the most significant change was a decrease in total liabilities and an increase in stockholders' equity. Total liabilities decreased by $558 million, or 46%, and stockholders' equity increased from a negative $409 million to $134 million. Within total assets, mean current assets and property plant and equipment decreased by a statistically significant amount (13% and 8% respectively). As a result of the adoption of FSR, reorganization goodwill was recorded with a mean (median) of $92.7 ($4.6) million, which represented a mean (median) of 11% (3%) of total assets. Of the 72 firms, 42 (58%) recorded positive reorganization goodwill and three (4%) recorded negative reorganization goodwill (not reported in the table). Liabilities subject to compromise had a mean of 110% of total assets immediately before the adoption of FSR (these liabilities are eliminated following the settlement and the compromised amount is recorded in other liability categories). Finally, as noted by those who criticize Chapter 11 for allowing firms to emerge with excessive amounts of debt (e.g., Gorney and Furness, 1992), the median debt-to-assets ratio after the emergence from Chapter 11 is still high, at 0.8.

Table 1. Descriptive balance sheet statistics of sample firms.[a]

	Millions of Dollars			Percentage of Total Assets		
	Predecessor Company (1)	Successor Company (2)	t-Stats Difference (p-Value) (3)	Predecessor Company (4)	Successor Company (5)	t-Stats Difference (p-Value) (6)
Current assets	\$363	\$317	−2.478	0.45	0.44	−0.574
	157	115	(0.016)	0.41	0.39	(0.568)
	612	542		0.22	0.25	
Property plant and equipment	282	260	−1.979	0.32	0.30	−1.369
	118	89	(0.052)	0.23	0.28	(0.175)
	523	515		0.30	0.24	
Other assets	162	122	−1.040	0.22	0.15	−3.676
	55	33	(0.302)	0.21	0.08	(0.001)
	321	277		0.14	0.17	
Reorganization value in excess of amounts allocable to identifiable assets	—	93	—	—	0.11	—
	—	5	—	—	0.03	—
	—	182		—	0.15	
Total assets	806	791	−0.346			
	445	440	(0.790)			
	1,319	1,262				
Current liabilities	\$209	\$217	0.550	0.29	0.31	0.726
	86	99	(0.584)	0.28	0.26	(0.469)
	371	362		0.21	0.19	
Pre-petition liabilities subject to compromise	790	—	—	1.10	—	—
	373	—	—	0.88	—	—
	1,257	—		0.69	—	
Long-term liabilities	96	287	4.321	0.13	0.35	7.362
	6	117	(0.000)	0.04	0.35	(0.000)
	197	470		0.19	0.22	
Other liabilities	120	152	1.294	0.10	0.11	0.563
	28	21	(0.199)	0.08	0.07	(0.575)
	356	515		0.10	0.13	
Total liabilities	1,215	657	−5.288	1.6	0.76	−9.454
	551	333	(0.000)	1.42	0.80	(0.000)
	1,943	1,100		0.71	0.15	
Stockholders' equity	−409	134	5.173	−0.61	0.24	9.469
	−129	70	(0.000)	−0.42	0.20	(0.000)
	770	203		0.71	0.16	

[a]This table presents balance sheet statistics (mean, median, standard deviation) immediately before (Predecessor Company) and immediately after (Successor Company) recording the effect of the plan of reorganization and the adoption of fresh start reporting. The reported statistics are for a sample of 72 firms that emerged from a Chapter 11 bankruptcy and adopted fresh start reporting.

Table 2. CEO turnover in firms emerging from Chapter 11 and adopting fresh start reporting.[a]

Panel A: CEO Turnover Prior *to Negotiations on the Reorganization Plan*

	N	% of Total
Outside replacement	25	35%
Inside replacement	8	11%
No Replacement	39	54%
	72	100%

Panel B: CEO Turnover After *Emergence from Bankruptcy*

	First Turnover				Second Turnover			
			Months After Emergence				Months After Emergence	
	N	% of Total	Mean	Median	*N*	% of Total	Mean	Median
Outside replacement	31	43%	6.7	1	13	18%	22	18
Inside replacement	16	22%	8	0	3	4%	26	27
No replacement	25	35%	—	—	56	78%	—	—
	72	100%			72	100%		

[a]This table presents statistics on CEO turnover from two years prior to the filing for Chapter 11 and up to the negotiations on the plan of reorganization (panel A), and on CEO turnover after the emergence from bankruptcy (panel B). The sample consists of 72 firms that emerged from Chapter 11 and adopted fresh start reporting.

Table 2 provides statistics on CEO turnover during and after the bankruptcy proceedings. Most firms (39, or 54%) retained their CEO during the two-year period prior to the filing for Chapter 11 and up to the negotiations on the plan of reorganization. Of the 33 (46%) newly appointed CEOs, 25 (76%) were external appointments (CEOs who had no prior affiliation with the company), while 8 were internal promotions. After exiting bankruptcy, most firms (47, or 65%) replaced their CEO immediately after the emergence, and most of these replacements (31, or 66%) were external. Of the 47 firms that replaced their CEO, 16 (34%) experienced a second replacement, on average two years after the emergence. An interesting (untabulated) finding is that 23 (70%) of the 33 CEO replacements reported in panel A were replaced again upon emergence from bankruptcy. This finding is consistent with what many firms reported in the bankruptcy documents: the newly appointed CEO acts as a turnaround specialist for the Chapter 11 period. Of the 39 firms reported in panel A that retained their prepetition CEO throughout the formulation of the reorganization plan, 24 (62%) replaced their CEO immediately after emergence from bankruptcy. Only 15 (21%) firms retained the same CEO over the entire period studied.

5. Empirical Results

5.1. Descriptive Statistics of the Variables

Table 3 presents descriptive statistics for the variables used in the analysis. The mean (median) absolute value of the misstatement in the fresh start equity (*MISSTATEMENT*) is 0.114 (0.083), and the mean (median) of the signed *MISSTATEMENT* is −0.040 (−0.014). All but the signed median are significantly different from zero. Since the analysis seeks to

Table 3. Descriptive statistics of the variables.[a]

	Mean	S. Dev	Min	Q1	Median	Q3	Max
|MISSTATEMENT|	0.114	0.106	0.001	0.027	0.083	0.183	0.479
MISSTATEMENT	−0.040	0.151	−0.479	−0.135	−0.014	0.043	0.279
VOTE	9.69	9.242	2	4	6	12	48
DEFICIENCY	1.353	0.673	0.506	0.931	1.114	1.473	4.117
OWNERSHIP	85.7	23.7	13.4	80.5	100	100	100
FUTURE	0.35	0.28	0	0.11	0.27	0.51	0.97
INDUSTRY	0.03	0.041	−0.18	0.02	0.03	0.04	0.07
PREPACK	0.25	0.44	0	0	0	1	1
CEO	0.35	0.48	0	0	0	1	1
SIZE	819.7	1288.8	5.49	141.8	407.3	943.2	7413.2

[a] This table presents summary statistics of variables used to examine the determinants of the misstatement in the fresh start value of equity for a sample of 72 firms that emerged from Chapter 11 and adopted fresh start reporting.

MISSTATEMENT = Fresh start book value of equity minus market value of equity immediately after emerging from bankruptcy scaled by the sum of fresh start total liabilities and market value of equity immediately after emergence from bankruptcy
VOTE = Number of claimants' classes that were allowed to vote on the plan of reorganization
DEFICIENCY = Debt-to-assets ratio in the last fiscal year before filing for Chapter 11
OWNERSHIP = Percentage ownership of former unsecured creditors and former shareholders in the reorganized entity
FUTURE = Probability of future financial distress (based on Zmijewski, 1984)
INDUSTRY = Median industry return on assets in the year of emergence. Industry consists of all firms with the same two-digit SIC code as the company
PREPACK = 1 if firm filed for a prepackaged bankruptcy and 0 otherwise
CEO = 1 if CEO was replaced in the two-year period before the Chapter 11 filing and the negotiations on the plan of reorganization by a CEO who had no prior affiliation with the company and 0 otherwise
SIZE = Fresh start total debt and market value of equity immediately after emergence from bankruptcy (millions of dollars).

explain the cross-sectional variation in the misstatement, of greater interest is the variation in *MISSTATEMENT*. As shown in Table 3, the misstatement variable exhibits a large cross-sectional dispersion, ranging from a minimum of −0.479 to a maximum of 0.279, with an interquartile range of 0.178. The mean misstatement is statistically distinguishable from zero, it is large in absolute terms and, more importantly, it exhibits a wide dispersion that warrants further investigation.

Table 3 also presents descriptive statistics for the explanatory variables. The average number of classes allowed to vote on the plan of reorganization was 10. The debt-to-assets ratio in the fiscal year *prior* to bankruptcy averaged 1.35, and was greater than 1 for 44 firms (61%, not reported in the table). Former junior claimants (that is, former unsecured creditors and shareholders) typically emerged as the majority shareholders, with a mean (median) interest of 85.7% (100%).[20] The average probability of future financial distress is quite high, at 0.35.[21] Only 18 firms (25%) underwent prepackaged bankruptcies. CEOs of 25 firms (35%) were replaced during the period from two years prior to the Chapter 11 filing until the negotiations on the plan of reorganization. Finally, mean (median) firm size was \$820 (\$407) million immediately after emergence from bankruptcy.

Table 4 presents the Pearson and Spearman correlation coefficients between the explanatory variables. While the magnitude of the correlation coefficients suggests that

Table 4. Correlation coefficients between variables.[a]

	MISSTATEMENT	VOTE	DEFICIENCY	OWNERSHIP	FUTURE	INDUSTRY	PREPACK	CEO	SIZE
MISSTATEMENT	—	0.278	0.086	0.206	0.265	−0.087	−0.226	0.279	0.056
	—	**0.018**	0.472	**0.083**	**0.025**	0.468	**0.057**	**0.018**	0.639
VOTE	0.281	—	−0.135	0.026	−0.051	−0.143	−0.274	0.053	0.249
	0.017	—	0.259	0.829	0.673	0.230	**0.019**	0.659	**0.035**
DEFICIENCY	0.043	−0.041	—	0.147	−0.278	−0.086	0.091	−0.123	−0.087
	0.720	0.708	—	0.218	**0.018**	0.474	0.449	0.298	0.465
OWNERSHIP	0.094	0.001	0.072	—	0.050	0.002	0.013	−0.191	0.015
	0.043	0.987	0.547	—	0.673	0.983	0.913	0.107	0.899
FUTURE	0.263	0.049	−0.318	0.019	—	−0.152	−0.004	0.079	0.259
	0.025	0.676	**0.006**	0.871	—	0.201	0.971	0.505	**0.028**
INDUSTRY	−0.087	−0.202	−0.013	0.160	−0.194	—	0.132	0.081	−0.150
	0.470	**0.089**	0.914	0.178	0.102	—	0.267	0.508	0.208
PREPACK	−0.242	−0.314	0.028	0.064	−0.002	0.106	—	−0.219	−0.099
	0.040	**0.008**	0.817	0.591	0.989	0.373	—	**0.065**	0.409
CEO	0.248	0.087	−0.092	−0.158	0.036	−0.018	−0.218	—	−0.145
	0.036	0.467	0.442	0.182	0.765	0.883	**0.065**	—	0.223
SIZE	−0.008	0.369	0.034	−0.033	0.241	−0.136	−0.147	−0.135	—
	0.944	**0.001**	0.775	0.780	**0.042**	0.256	0.219	0.259	—

[a]This table reports Pearson (upper part) and Spearman correlation coefficients (with two-tailed significance levels) between variables for a sample of 72 firms that emerged from Chapter 11 and adopted fresh start reporting. See Table 3 for definitions of variables.

multicollinearity is not a problem, some statistically significant correlations are observed. Larger firms are associated with a greater number of voting classes and have a greater probability of future financial distress. Prepackaged bankruptcies are associated with a smaller number of impaired claimant classes (which is probably an explanation for the success of the prepackaged bankruptcy) and are less likely to have experienced a CEO turnover. The univariate correlations between the misstatement measure and the set of explanatory variables are discussed below.

5.2. Regression Results

Table 5 reports the results of the regression analysis.[22] Consistent with the first prediction, the misstatement in the fresh start value of equity is increasing in the relative bargaining

Table 5. Regression of the determinants of the misstatement in the fresh start equity value.[a]

Independent Variables		Expected Sign	Coefficient Estimate	p-Values* OLS	p-Values* White
Intercept		?	−2.710	0.102	0.136
VOTE		+	0.047	0.014	0.001
DEFICIENCY		+	0.506	0.049	0.037
OWNERSHIP		+	0.013	0.064	0.021
FUTURE		+	1.737	0.007	0.010
INDUSTRY		+	0.003	0.933	0.899
PREPACK		?	−0.412	0.292	0.194
CEO		?	0.851	0.019	0.016
SIZE		?	−0.058	0.617	0.637
Obs.	72				
Adj. R^2	25.0%				
F	3.800				
$p > F$	0.001				

[a]This table reports results of a regression of a set of explanatory variables on the misstatement in the fresh start value of equity for a sample of 72 firms that emerged from Chapter 11 and adopted fresh start reporting

MISSTATEMENT = Fresh start book value of equity minus market value of equity immediately after emerging from bankruptcy scaled by the sum of fresh start total liabilities and market value of equity immediately after emergence from bankruptcy

VOTE = Number of claimants' classes that were allowed to vote on the plan of reorganization

DEFICIENCY = Debt-to-assets ratio in the last fiscal year before filing for Chapter 11

OWNERSHIP = Percentage ownership of former unsecured creditors and former shareholders in the reorganized entity

FUTURE = Probability of future financial distress (based on Zmijewski, 1984)

INDUSTRY = Median industry return on assets in the year of emergence. Industry consists of all firms with the same two-digit SIC code as the company

PREPACK = 1 if firm filed for a prepackaged bankruptcy and 0 otherwise

CEO = 1 if CEO was replaced in the two-year period before the Chapter 11 filing and the negotiations on the plan of reorganization by a CEO who had no prior affiliation with the company and 0 otherwise

SIZE = Log of fresh start total debt and market value of equity immediately after emergence from bankruptcy

* p-values are based on two-tailed tests.

power of the Chapter 11 claimants, as indicated by the positive and significant association between the misstatement variable and the proxies for claimants' relative bargaining power: *VOTE, DEFICIENCY,* and *OWNERSHIP*. These findings suggest that the misstatement in management's reporting choice of the fresh start value of equity is increasing in the number of classes allowed to vote on the plan, the severity of the financial distress at the onset of Chapter 11, and the percentage ownership of former unsecured creditors and former shareholders in the reorganized entity.

The regression results do not support the second hypothesis. The coefficient estimate of *INDUSTRY* is insignificant, while that of *FUTURE* is significant but opposite to its expected negative sign.[23] The positive and significant coefficient estimate of *FUTURE* indicates that firms emerging from Chapter 11 with a greater probability of future financial distress are in fact associated with a larger overstatement (or smaller understatement) in their fresh start equity. Further, the positive sign on *FUTURE* suggests that management of firms that are more likely to experience postbankruptcy financial distress appear to be primarily concerned with obtaining acceptance for their plan rather than (as predicted by H2) with the effects of the fresh start equity value on postbankruptcy reported performance. A possible explanation for this result is that firms that are relatively more likely to experience postbankruptcy financial distress are trying to improve the likelihood of acceptance of the plan by portraying their prospects as more favorable. (I analyze this explanation in the next section.)

Firms that replaced their CEOs before the negotiations on the plan of reorganization are associated with a greater overstatement (or a smaller understatement) than other firms. One explanation for this finding is that in most cases (76%) these newly appointed CEOs act as turnaround specialists during the bankruptcy period and are replaced immediately after emergence from bankruptcy. Such CEOs are probably most concerned with reporting a value that will assist in expediting the emergence from bankruptcy (consistent with overstating the fresh start equity value) and are less likely to be concerned with potential implications of their reporting choice on the firm's future reported performance. Finally, while the regression coefficient on *PREPACK* is insignificant (despite its significance in the univariate results in Table 4), its negative sign suggests that firms that have undergone prepackaged bankruptcies emerge with a greater understatement in their fresh start equity value.

5.3. Additional Tests

Three additional tests were conducted to assess the robustness of the findings. First, to test whether the regression results are sensitive to the inclusion of the prepackaged bankruptcy cases, I reestimated the regression for the subsample of non-prepackaged firms. The results of this regression (not reported) were qualitatively similar to the results in Table 5, indicating that the results for the full sample are, in general, robust to the form of bankruptcy.

The second test addresses the possibility that the composition of the firm's assets before the adoption of FSR may affect management's ability to misstate the fresh start amounts. For instance, if a firm's only asset is cash, management will have less discretion in determining fair value than in a firm whose only asset is goodwill. Consequently, it is possible that the degree of reporting discretion is a contributing factor to the cross-sectional variation in the misstatement. To test for this, I estimated the correlations between both the signed and absolute value of *MISSTATEMENT* and (1) the ratio of current to total assets immediately before the adoption of FSR and (2) the amount of reorganization goodwill (relative to total assets) that was recorded upon the adoption of FSR. The results of these correlation analyses indicate no significant association between the misstatement and these two variables (p-value of greater than 0.35), suggesting that the degree of discretion was not a contributing factor in explaining the cross-sectional variation in the misstatement in fresh start equity values.

The final test examines whether concerns about future reported performance (as predicted by H2) are related to whether the CEO in charge of the reorganization left office after the emergence from bankruptcy. Managers who expect to leave after the firm exits bankruptcy are probably less concerned about the implications of their reporting choice on future reported performance than are other managers. Accordingly, misstatements of firms whose CEOs remained in office after bankruptcy are likely to reflect a greater understatement than misstatements of other firms. I test this argument by estimating a regression similar to the one reported in Table 5, this time defining *CEO* to equal 1 if the CEO was replaced immediately *after* Chapter 11 and 0 otherwise. I also performed nonparametric comparisons (Wilcoxon and median tests) of *MISSTATEMENT* between the two *CEO* partitions. Results of the additional analyses (unreported in the tables) indicate that the misstatement is *not* significantly different between the two groups. The nonparametric comparison resulted in insignificant p-values, and the regression coefficient estimate of *CEO* was positive but insignificant (p-value of 0.198). This evidence suggests that CEOs who leave office after bankruptcy have similar incentives in determining the fresh start equity value to those who stay in office.

6. Summary and Conclusions

This paper examines management's reporting choice of the fair value estimate that determines the fresh start value of equity for a sample of 72 firms that emerged from Chapter 11 bankruptcy and adopted fresh start reporting in accordance with SOP 90-7. I conjecture that managers of fresh start firms have two conflicting incentives: (1) to overstate equity value in order to promote acceptance of the reorganization plan and expedite emergence from bankruptcy and (2) to understate equity value in order to enhance reported performance postbankruptcy. I test for a misstatement in the fresh start equity values and investigate whether the cross-sectional variation in such misstatements is related to factors affecting the acceptance of the reorganization plan (captured by the bankruptcy claimants' relative bargaining power) and factors affecting postbankruptcy reported performance (reflected by the probability of future losses).

Results of the analysis indicate that the fresh start equity value is, on average, 4% understated relative to the market value of equity immediately after emergence from Chapter 11, and that the misstatement exhibits large cross-sectional variation. Cross-sectionally, the misstatement is *increasing* in the relative bargaining power of impaired classes (measured as the number of claimant classes allowed to vote on the plan, the firm's debt-to-asset ratio at the onset of bankruptcy, and the percentage ownership of former unsecured creditors and shareholders in the reorganized entity), and is increasing in the probability of future financial distress. The latter result is opposite to the direction predicted and suggests that concerns about the adverse effects of a higher equity value on future reported performance are dominated by the incentive to report an equity value for the reorganized entity that will advance the acceptance of the reorganization plan. Finally, I find that firms that replaced their CEO prior to the bankruptcy petition are associated with a greater overstatement in the fresh start equity value than are other firms.

Combining the regression results with the evidence of an average understatement in the fresh start equity value suggests that while managers of FSR firms attempt to advance the acceptance of the plan by overstating the fresh start equity value, they do so only to the extent necessary. That is, their goal appears to be to report the lowest fresh start equity estimate that will allow the reorganization plan to be accepted. Note also that the average understatement may be related to a potential bias introduced by the relatively small sample size. For example, market values may be, on average, higher than fresh start values because of improving economic conditions over the studied period. Alternatively, fresh start values may be, on average, lower than market values because of factors (e.g., future growth prospects or liquidity premia) that cannot be completely captured by the FSR computations.

The finding that the extent of the misstatement in the fresh start value of equity is related to factors associated with the Chapter 11 bankruptcy process suggests that the characteristics of the bankruptcy process should be taken into account by bankruptcy judges, creditors, and shareholders when evaluating the accuracy and credibility of the reports made by the managers of bankrupt firms. The size of these misstatements supports concerns raised by critics of fair value accounting that such estimates are subject to substantial managerial discretion. Managerial discretion thus merits the attention of regulators and accounting standard setters who are considering the issuance of new accounting rules involving the disclosure or recognition of management's fair values estimates.

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Notes

1. Butler (2000) finds fresh start equity values to be, on average, overstated by 36.9% relative to market values. The differences in the sign and magnitude of the average misstatement between the current study and Butler (2000) appear to be related to the inclusion of extreme observations in his sample. (Table 2 of Butler (2000) reports a maximum overstatement of 1300.1%.)

2. Such payouts are likely to make these classes more amenable to accept the plan and, more importantly, remove any legal basis for them to block plan acceptance. Despite their low priority, junior classes can formally block or delay the reorganization by withholding their approval for the plan. See also the discussion in Section 4.
3. A prepackaged bankruptcy attempts to combine the time and cost savings of an out-of-court restructuring with the benefits of Chapter 11 bankruptcy by completing negotiations and acceptance of the plan *before* the actual filing. In such cases, confirmation of the plan by the court and emergence from bankruptcy typically take from one to three months.
4. See Healy and Wahlen (1999) for a review of the literature.
5. For a detailed description of the bankruptcy process, see Grant (1994) or Franks and Torous (1989).
6. Note that this condition is *not* based on the fresh start estimates but rather on the pre-emergence amounts.
7. For a numerical illustration of the adoption of FSR, see Lehavy (1999). For a more detailed description of the requirements of SOP 90-7, see Patterson and Newton (1993).
8. Gilson et al. (2000) find that analyst coverage of bankrupt firms is quite low and that firms rarely trade during bankruptcy proceedings. Giammarino (1989) shows analytically that such an information advantage may lead to a costly court-supervised reorganization despite the possibility of costless renegotiations.
9. Similar to the approach in these papers, I do not take a stance on whether creditors are being "fooled" or whether they see through management reporting biases. Creditors might be aware that management's report is misstated but nevertheless accept the proposed distributions because of insufficient information to derive alternative estimates, lack of a better offer, or the high cost of proposing their own plan. (For creditors to propose an alternative plan, they must provide appraisals for *all* claims and assets of the debtor and must defend these appraisals in lengthy valuation hearings.)
10. Indeed, for a subsample of 54 "non-prepackaged" bankruptcy cases, I find the number of voting classes to be positively and significantly correlated with the time in Chapter 11 (correlation coefficient of 0.39).
11. Creditors also prefer to expedite the emergence from bankruptcy because the costs associated with the reorganization are paid by the firm and therefore are borne (in large part) by them.
12. LoPucki and Whitford (1990) argue that to gain support of all classes the debtor muse provide at least some distribution to each class regardless of its priority.
13. Zmijewski's model is based on a large sample of New York and American Stock Exchange firms that has a bankrupt/nonbankrupt composition closer to the actual population composition than the sample used in other studies. It has the advantage of being parsimonious as it includes only three ratios which capture the important characteristics of the firm: profitability, leverage, and liquidity. A potential concern with using this model in this study is that it was not intended as a predictor of the probability of future financial distress among firms emerging from bankruptcy. However, this potential problem is mitigated by the fact that I employ in the prediction the fresh start numbers (which are fair value estimates based on a going concern assumption) and not the numbers reported during bankruptcy. This model has been used in other studies as well (Carcello et al., 1995; Bamber et al., 1993; Wheeler et al., 1993).
14. Since B^* is estimated as of the emergence date, balance sheet amounts equal the fresh start amounts, while income statement amounts are from the last fiscal year prior to the emergence from bankruptcy. This creates two problems: (1) the fresh start amount of total assets (in the denominator) includes the value of equity, which is hypothesized to be misstated, and (2) the amount of net income for the emergence year includes a significant extraordinary gain from the forgiveness of debt. To account for the effects of these problems on B^*, I replaced total assets with the sum of the fresh start value of total debt plus the market value of equity, and used income before extraordinary items in lieu of net income.
15. As an alternative measure for industry prospects, I used the value-weighted market-adjusted return for all firms with the same two-digit SIC code as the sample firm in the six months preceding the month of emergence from bankruptcy.
16. It is difficult to predict the direction of this potential relation. On the one hand, it is possible that managers who remain in office throughout Chapter 11 have a stronger incentive to overstate the estimate of fresh start equity value than managers who were replaced during Chapter 11. On the other hand, it is possible that such managers have a stronger incentive to understate these estimates because they are more likely to be retained after emergence and, therefore, would prefer to boost future reported performance.
17. Unintentional misstatements should not lead to a bias in the estimate of the misstatement as they should average out to zero. Additionally, it is unlikely that unintentional errors will correlate with the set of explanatory variables in a systematic manner.

18. This list was obtained from (1) *The Bankruptcy Yearbook and Almanac* (1993 and 1995 editions), which contains the names of all public companies that emerged from Chapter 11, (2) the Securities and Exchange Commission's (SEC) Annual Report to the Congress, (3) the AICPA's National Automated Accounting Research System (NAARS), (4) SEC filings, (5) *Bankruptcy DataSource,* and (6) the *Wall Street Journal Index*.
19. This rate (133 of 295, or 45%) is similar to that reported in other bankruptcy studies. For instance, Hotchkiss (1995) finds that of a group of 516 firms filing for Chapter 11 between 1979 and 1988, only 197 (38%) continued to file financial statements with the SEC, with the rest either emerging as private firms, merging, or liquidating.
20. In most cases former unsecured creditors had the majority stake in the reorganized firm, with a mean (median) ownership of 78.6% (91.9%).
21. As a comparison, in 1994 the average probability of future financial distress for the S&P 500 was 0.005.
22. An outlier analysis did not indicate any extreme observations (maximum Cook's D statistic of 0.19). I also report p-values obtained using the consistent estimates of the variance (White, 1980) because the results are slightly different from those obtained using the OLS variance.
23. The coefficient on the alternative measure for *INDUSTRY,* the value-weighted market-adjusted return for all firms with the same two-digit SIC code as the sample firm in the six months preceding emergence from bankruptcy, is insignificantly different from zero.

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