II Prior Studies

The costs of corporate bankruptcy or reorganization are often considered to encompass two concepts. First, there are the direct costs, comprised chiefly of the professional fees associated with reorganization, but also including other lesser costs like court filing fees and, in the United States, quarterly fees due to the United States Trustee’s office. In addition, there are also indirect costs of a firm’s bankruptcy, which are more abstract but include things like lost revenues, lost opportunities, and lost goodwill. Some of these costs may be of concern to the firm’s stakeholders, but not to policymakers if, for example, financial distress simply results in the shifting of sales from the distressed firm to a competitor firm – unless the competitor is abroad.

These indirect costs are not only difficult to measure generally, but it is also difficult to determine what portion of these costs are attributable to any particular bankruptcy system. Firms that fail are likely to incur lost sales and the like even in a jurisdiction without a bankruptcy or insolvency system. The indirect costs of a particular bankruptcy system like chapter 11, as opposed to the indirect costs of financial distress generally, are in truth then the marginal difference in such costs between the system under study and some alternative, often a hypothetical world with no bankruptcy system.

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17 As the focus of this study is on chapter 11 costs, this chapter intentionally neglects several important studies of the costs of European or Canadian corporate bankruptcy procedures, including John Armour et al., Corporate Insolvency In The United Kingdom: The Impact of the Enterprise Act 2002, 5 European Co. & Fin. L. Rev. 135 (2008); Oscar Couwenberg & Abe de Jong, Costs And Recovery Rates In The Dutch Liquidation-Based Bankruptcy System, European J. L. & Econ. 105 (2008); Timothy C. G. Fisher & Jocelyn Martel, The Irrelevance of Direct Bankruptcy Costs to the Firm’s Financial Reorganization Decision, 2 J. Emp. L. Stud. 151 (2005).

18 The United States Trustee Program is a component of the Department of Justice that monitors bankruptcy cases for fraud and the like. It is distinct from the bankruptcy trustee appointed in all chapter 7 and some chapter 11 cases.


20 As noted by an earlier commentator in a related context:

There is a common tendency to view bankruptcy as an “either-or” situation. Either the firm is solvent and there are no costs or the firm is bankrupt and there are costs. In fact, for indirect costs, there is usually a continuum of costs that increase at an accelerating rate as exposure to bankruptcy increases . . .


21 Depending on the basis of comparison, the indirect costs could thus be negative.
Although there have been some efforts to study indirect costs empirically, and one recent study suggests that the total expected cost of financial distress may be as high as 4.5% of the firm’s pre-distress assets, more often efforts to examine these costs have been theoretical, particularly in the legal literature. In addition, studies of indirect costs have been limited to publicly held companies, and it is unknown if the results found in that context will translate to privately held firms, which make up the vast majority of debtors.

Studies of the direct costs of corporate reorganization date to the Great Depression. Between the 1930s and the enactment of the current United States Bankruptcy Code in 1978, the most important study of direct costs was Jerold Warner’s examination of railroads that filed under section 77 of the Bankruptcy Act between 1933 and 1955. Warner’s study continues to make occasional appearances in the literature, despite its exceedingly small sample size, focus on an industry that was in many ways atypical of corporate bankruptcy practice under the old Bankruptcy Act, and the use of a sample that was arguably already out of date when published in 1977.

The first significant study of professional fees under chapter 11 was Weiss (1990), who studied a sample of 37 publicly traded firms that filed for bankruptcy.

22 Edward I. Altman, A Further Empirical Investigation of the Bankruptcy Cost Question, 39 J. Fin. 1067 (1984) (measuring indirect costs by consideration of comparable company sales, but without specifying what portion of said costs are attributable to the bankruptcy system and what portion might be the result of general financial distress); Andrade & Kaplan, supra note 19; T.C. Opler & S. Titman, Financial Distress and Corporate Performance, 49 J. Fin. 1015, 1040 (1994).
25 Thomas Clifford Billig, Equity Receiverships in the Common Pleas Court of Franklin County, Ohio (1932); Israel Treiman, An Analysis of the Statistical Data on Receivership Suits Filed in the St. Louis Circuit Court 1925-32 Inclusive, 19 ST. LOUIS L. REV. 87 (1933). See Stephen J. Lubben, Railroad Receiverships and Modern Bankruptcy Theory, 89 CORNELL L. REV. 1420, 1452 (2004) (noting that one railroad paid attorneys alone more than $900,000 during the reorganization, which represented approximately 3.5% of its pre-receivership assets); see also Churchill Rodgers & Littleton Groom Reorganization of Railroad Corporations Under Section 77 of the Bankruptcy Act, 33 COLUM. L. REV. 571, 571 n.2 (1933) (citing Paxton, Railroad Receiverships and Reorganizations (1933) 1 Ed. Research Rep., No. 2; Mourtoun and Associates, The American Transportation Problem (1933) 333 et seq; Chicago, M. & St. Paul Reorganization, 131 I.C.C. 673, 699 (1928)) (“The reorganization of the Wabash, 1911-1916 [was] reported to have cost $3,449,500; Pere Marquette, 1912-1917, $2,769,000; Western Pacific, 1915-1916, $2,000,000; Chicago, Milwaukee & St. Paul, 1925-1928, in excess of $5,000,000.”).
26 Jerold B. Warner, Bankruptcy Costs: Some Evidence, 32 J. Fin. 337 (1977) (finding that professional fees averaged four percent of total assets). There is also some information on bankruptcy costs in the 1960s contained in DAVID T. STANLEY & MARJORIE GIRTH, BANKRUPTCY: PROBLEM, PROCESS, REFORM (1971).
28 Eleven cases.
29 Only railroads could reorganize under section 77, railroads were not permitted to liquidated, and the railroads’ proceedings were subject to oversight by the Interstate Commerce Commission.
between 1979 and 1986. This study found costs to be, on average, 3.1% of the book value of debt plus market value of equity at the end of the fiscal year preceding bankruptcy, which was substantially less than the 4% to 25% that prior studies had reported. Weiss (1990) ultimately concluded that chapter 11 direct costs “will have little or no impact on the pricing of claims prior to bankruptcy.”

In 1996, Tashjian and others published a study of prepackaged chapter 11 cases, utilizing a sample of forty-nine firms that filed prepackaged chapter 11 cases between 1986 and the first six months of 1993. The authors found that prepackaged cases fall between out-of-court and chapter 11 restructurings in terms of time, direct costs, recovery rates, and violations of absolute priority. Overall, the authors reported direct costs of 1.85% of assets.

In 1997, Brian Betker studied a sample of 157 firms that experienced financial distress between 1986 and 1993, including 75 traditional chapter 11 cases, 48 prepacks and 24 exchange offers. He found that the direct costs of traditional chapter 11 cases averaged 3.93% of total pre-bankruptcy assets (median 3.37%), which was substantially larger than average direct costs for prepacks (mean 2.85%, median 2.38%), though direct costs for prepacks were not significantly larger than those for exchange offers (mean 2.51%, median 1.98%). Betker further found evidence of economies of scale in restructuring debt, that is direct costs increased with total assets but declined with the square of total assets and that the restructuring type did not effect the “concave relation between direct costs and

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30 Lawrence A. Weiss, *Bankruptcy Resolution: Direct Costs and Violation of Priority of Claims*, 27 J. Fin. Econ. 285 (1990). There were other studies of bankruptcy costs between 1978 and 1990, but often these papers used multi-year samples that failed to note the enactment of a new Bankruptcy Code in 1978, or assumed, sometimes only implicitly, that cases filed under the old Bankruptcy Act were relevant to determining the cost structure of cases under the new Code. See, e.g., S. Ang et al., *Administrative Costs Of Corporate Bankruptcy: A Note*, 37 J. Fin. 219 (1989) (studying cases from before the enactment of the 1978 Bankruptcy Code).

31 Id. at 286.

32 Id. at 299.

33 As explained in Lubben (2000), infra: A true prepack involves a prepetition solicitation of votes on a plan. A partial prepack involves both a prepetition solicitation (e.g., of bondholders) and a postpetition solicitation (e.g., of equity). Partial prepacks are usually done to avoid having to conduct a “registered prepack,” which is subject to review and comment by the SEC, and takes substantially longer than a non-registered prepack. A prearranged or prenegotiated case involves no prepetition solicitation, and thus is little different from a traditional Chapter 11 case, save for the fact that a proposed plan and disclosure statement are fully drafted on the first day of the case. (footnotes omitted).

34 Elizabeth Tashjian et al., *Pre-Packs: An Empirical Analysis of Prepackaged Bankruptcies*, 40 J. Fin. Econ. 135 (1996). As noted in Lubben (2000), infra, the definition of “prepackaged” used in this paper likely also includes prenegotiated chapter 11 cases.

35 Brian L. Betker, *The Administrative Costs of Debt Restructurings: Some Recent Evidence*, 26 Fin. Mgmt. 56 (1997) (hereinafter “Betker (1997)”). Betker defined a prepack as “one in which the firm filed both a bankruptcy petition and plan at the same time and where the firm’s creditors had either officially accepted the plan in a binding vote or all impaired creditor classes agreed in principle to vote for the plan” and an exchange offer as “an out-of-court restructuring in which new securities (cash, equity, or debt) are exchanged for old debt.” Id. at 58.

36 Id. at 57.
firm size. Betker found that median cost for traditional chapter 11s was 4.63% of total post-restructuring assets plus cash and property distributed to creditors, which was significantly larger than that for prepacks (2.64%) or exchange offers (2.26%). Thus, Betker concluded that firms involved in chapter 11 reorganizations lost more value than firms involved in prepacks or exchange offers.

In an attempt to understand the varying levels of direct costs, Betker related direct costs as a percentage of pre-restructuring total assets to a series of explanatory variables. He found that on average, traditional chapter 11 cases were larger than prepacks or exchange offers, though the median firm size did not differ significantly. Prepacks were more likely to involve leveraged buyouts than chapter 11 cases or exchange offers. Exchange offers tended to restructure the smallest fraction of debt while chapter 11 cases restructured the most classes of debt. Further, traditional chapter 11 was typically used to restructure private and trade debt, while prepacks and exchange offers were mostly used to restructure public debt. Finally “vulture” or distressed investors ended up with equity blocks in 44 cases.

Betker found that the study’s results for traditional chapter 11 cases were consistent with his expectations. The ratio of direct costs to assets was lower in cases involving leveraged buyouts, but the cost savings declined as the fraction of public debt in the capital structure increased. Debtors incurred less direct costs when a vulture investor acquired a 5% stake in the reorganized debtor, but those cost savings decreased as the firm size increased. For prepacks, Betker concluded that direct costs were negatively related to firm size and positively related to the proportion of restructured debt held by trade creditors. So-called “vulture” involvement did not seem to significantly effect the costs of prepacks. For exchange offers, the results indicated that direct costs were positively related

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37 Id. at 59. The question of whether chapter 11 cost is subject to “economies of scale” has been the subject of dueling definitions, and this author is guilty of using both definitions. Betker, Lawless, and Lubben (2000) defined economies of scale as a non-linear relationship between size and cost, while LoPucki and Lubben (2008) suggest a definition that means cost increases on less than a one for one basis with size – i.e., the slope of the relationship is less than one. This study uses the former definition.
38 Id. at 61.
39 Id. at 61.
40 Id.
41 Id. at 63.
42 ld.
43 ld.
44 Id. at 63. For example, none of the 29 exchange offers and only 10 of the 48 prepacks restructured any trade debt while only 9 of the 29 exchange offers restructured any private debt. ld.
45 Id. at 64.
46 ld.
47 Id. at 66.
48 Id.
49 Id.
50 Id. at 66.
to the percentage of debt and the number of classes restructured and negatively related to firm size.51

Betker ultimately concluded that prepackaged bankruptcy costs were similar to exchange offers, and both were lower than traditional chapter 11 filings.52 Direct costs in chapter 11 cases were lower if the firm involved was a leveraged buyout, but the cost savings decreased as the ratio of public debt to total debt increased.53 Direct costs of chapter 11 were also lower when vulture investors were involved in the restructuring.54 In short, Betker’s study indicated that debt restructurings were less expensive when creditors had less trouble coordinating their efforts.55

More recently, this author set out to consider assertions that direct costs of chapter 11 were “excessive.”56 I conducted a study of 22 corporate bankruptcies and reported evidence that the direct costs of chapter 11 were in fact nominal, both empirically and analytically, that is, “not only on a simple percentage basis but also in relation to other significant corporate transactions.”57

The study examined professional fees along three dimensions: “(a) fees as a percentage of the firm’s overall debt load, (b) fees as a percentage of the debtor’s reported assets, and (c) fees in relation to total firm size.”58 With respect to the entire sample, the direct costs of chapter 11 were found to average 0.87% of total firm size (assets plus debts).59 When prepackaged bankruptcies were removed from the sample, the direct costs increased to 1.20% of total firm size.60 When measured as a percentage of assets, direct costs were found to average 1.8% for the entire sample and 2.5% when prepacks were excluded.61 I ultimately concluded that “the direct costs of the current Chapter 11 regime are quite modest, and [thus] the efficiency gains from many of the proposed reforms may be quite feeble, if such gains are not lacking altogether.”62

Lubben (2000) turned out to be the opening act in a multitude of empirical legal studies of business bankruptcy costs over the next decade. That same year, Lawless and Ferris reported on their study of small business chapter 11 costs.63

51 Id.
52 Id. at 56.
53 Id.
54 Id.
55 Id. at 67.
57 Lubben (2000), supra note 51, at 511.
58 Id. at 512.
59 Id.
60 Id. at 512-13.
61 Id. at 513.
62 Id.
Studying multiple judicial districts, the authors reported median costs of 3.5% of debtor assets. The authors concluded that whether “measured by total distributions or total assets, chapter 11 costs are of a relatively low magnitude and at a level consistent with studies of large corporate bankruptcies.”

In 2004, Lynn LoPucki and Joseph Doherty reported on “one of the most extensive studies to date of the professional fees and expenses awarded by U.S. bankruptcy courts in the reorganization of large, public companies.” LoPucki and Doherty studied the professional fees and expenses awarded by U.S. bankruptcy courts in 48 chapter 11 cases involving large, public companies whose plans were confirmed between 1998 and 2002.

The authors constructed a regression model of the principal determinants of fees and expenses applied for and awarded to the professionals involved in the sample’s reorganizations in order to test the impact of different variables on such awards. They tested a number of different variables, including the size of the firm, the length of the case, the court of the bankruptcy proceeding, the number of professional firms involved in the case, the solvency of the firm, the type of reorganization plan being confirmed, the firm’s industry, the amount of fee cuts imposed by the court, whether the firm was liquidated during the bankruptcy proceeding, whether the debtor’s lawyers were from New York, whether the firm ultimately liquidated or reorganized, and whether the debtor’s lawyers were local to the court. However, LoPucki and Doherty ultimately settled on just four variables for use in their regression: firm size (measured by the assets reported on the bankruptcy petition), case duration, the number of professional firms seeking reimbursement, and the location of the bankruptcy proceeding.

Using this model, LoPucki and Doherty concluded that firm size and length of time between filing and confirmation were the strongest determinants of professional fees awarded. Further, the number of professional firms seeking reimbursement also impacted the overall amount of professional fees awarded, albeit causing a smaller effect than the first two variables. Using only those three factors in their regression analysis, LoPucki and Doherty were able to explain 77% of the variance of fees. Additionally, by controlling for those three variables, the
authors found that fees were significantly higher for bankruptcy cases proceeding in Delaware – approximately 32% higher.73

Shortly thereafter, this author published a two-part article looking at the internal mechanics of attorney fees in chapter 11.74 Using the billing records of a large corporate law firm in a single Delaware chapter 11 case, I demonstrated that more than 60% of the attorneys were not bankruptcy specialists, suggesting that a good deal of the costs that appear on fee applications may be exogenous to the chapter 11 process. Since this data suggests that the direct costs of chapter 11 itself might be even lower than previously reported, I concluded by noting the challenge that this presented for those who argue that chapter 11 has a substantial effect on \textit{ex ante} debt prices. Once discounted by the probability of default and time until such default, such small amounts would only be important in highly efficient markets, of which the debt markets are unlikely examples.

Moreover, I also noted that the data showed that most of the cost of chapter 11 was attributable to the mid-range attorneys, neither the most expensive nor the most junior attorneys that were often the focus of courts and the press.

In 2006, Bris, Welch and Zhu published a study of almost 300 corporate bankruptcies filed in Arizona and New York from 1995-2001.75 The sample was comprised of 225 chapter 11 cases and 61 chapter 7 cases. The authors note problems with missing data that also appear in the present study, and any study that attempts to move beyond the very large publicly traded debtors covered by commercial data services:

All data are hand coded from the full bankruptcy documents. Although the forms are standardized, each firm reported its information in a different format. Some firms did not even report basic data, such as assets, despite a legal requirement to do so. In some cases, we have no choice but to discard the entire observation. In other cases, we can use an observation in some tests, but not in others.

The authors found that the average time spent in chapter 7 is 1.9 years, and the average time spent in chapter 11 is 2.3 years. They further concluded that that chapter 7 liquidations are no faster or cheaper than chapter 11 reorganizations, once differences in firm characteristics were accounted for. As with the LoPucki (2004) and Lubben (2008)76 studies, the authors found that courts rarely deny fee applications. They also noted that bankruptcy costs are highly sensitive to the size of debtor being measured and how size itself is measured, both in terms of which metric is used (assets, debts, etc.) and the source of the data used.

73 LoPucki & Doherty, supra note 65, at 120-21.
76 \textit{infra}. 
2008 then saw the publication of three major empirical legal studies of chapter 11 costs. First, LoPucki and Doherty returned to their original model and compared it with a new model, that they asserted better represented pure case complexity. Describing the difference between the two regression models as the “billing opportunity” presented by a case, the authors asserted that professionals routinely overcharged for chapter 11 work.

Next, this author produced the American Bankruptcy Institute Chapter 11 Fee Study, and published a related article setting forth the results of that study. The study examined a total sample of 1,026 cases filed in 2004 as 945 chapter 11 cases were pooled into a “random” sample and 99 cases were considered in a “big case” dataset. The average firm in the big case dataset had scheduled assets of $423.4 million and scheduled liabilities of nearly $776 million, while the average firm in the random sample had scheduled assets of $21.2 million and scheduled liabilities of more than $37 million. Lubben (2008) found that for both samples professional fees totaled 4 to 4.5 percent of the bankrupt firms’ assets and liabilities, but cautioned against reporting cost in relation to size, since the data evidenced significant economics of scale.

While partially confirming prior studies, such as LoPucki and Doherty (2004), Lubben (2008) also found that time spent in chapter 11 was not a significant predictor of overall cost once case complexity was directly modeled. Lubben (2008) found the addition of other variables, such as the presence of official committees and whether there were “first day motions” filed in a case, were better predictors of the costs involved in a chapter 11 case. The study also found no indications that filing in Delaware or New York resulted in greater cost.

Also in 2008, LoPucki and Doherty examined the growing role of investment bankers in modern chapter 11 practice and constructed regression models for specific bankruptcy professionals. The primary findings of this paper largely track those of its earlier companion papers, although the authors did note that “the fees of financial advisors grew at the rate of 25% per year, as compared with an increase in all professional fees and expenses of 7% per year.” They also separately modeled the costs of lead debtor’s attorneys, finding that Skadden, Arps, a leading New York corporate law firm, was substantially more expensive than other debtors’ firms. They concluded “Skadden Arps representation cost more in these cases because Skadden Arps billed more hours.”

78 The ABI Chapter 11 Fee Study is available online (http://ssrn.com/abstract=1020477).
81 Skadden, Arps, Slate, Meagher & Flom LLP.
Summary

The leading studies of the costs of corporate reorganization are from prior generations, and are now quite out of date. Warner studied cases that were already old when his study was published in 1977, and Weiss’s 1990 study, while a vast improvement, involves cases from a different era in chapter 11 practice.

More recent studies by Lubben, Lawless and LoPucki improve and update these prior studies, but still suffer from their own problems. Lawless studies very small chapter 11 cases. LoPucki’s make strong claims about chapter 11 cost based on small samples, which stretch over several years. Lubben’s 2008 study was limited to a two-year view of chapter 11 cost.

In short, the costs of chapter 11 have been heavily studied, but in a largely piecemeal and incremental manner. Large and small cases have been the subject of distinct studies, but rarely have the two been studied across comparable data-sets. This study presents a unified picture of the whole of chapter 11.