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Changes in Chapter 11 Success Levels Since 1980

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CHANGES IN CHAPTER 11 SUCCESS LEVELS SINCE 1980

*Lynn M. LoPucki**

CONTENTS

INTRODUCTION	989
I. PLAN CONFIRMATION	992
II. ENTITY SURVIVAL	997
III. BUSINESS SURVIVAL	998
IV. REDUCTION IN ASSET SIZE	1001
V. FINANCIAL AND ECONOMIC SUCCESS.....	1003
A. Leverage Emerging.....	1004
B. Operating Income.....	1005
C. Refiling	1006
VI. CHANGES IN CONTROL	1008
VII. FILER DISTRESS LEVELS	1010
VIII. CONCLUSION.....	1012

INTRODUCTION

The UCLA-LoPucki Bankruptcy Research Database (BRD) Success Modeling Project is in its fourth year. The Project is an effort to collect and analyze the data needed to evaluate the bankruptcy reorganization process as applied to large public companies. By defining and measuring success, the Project seeks to improve the functioning of the bankruptcy system with respect to large public company cases in at least three ways. The first is to provide an objective basis for assessing rules and procedures by linking differences in rules and procedures to differences in outcomes. The second is providing system participants with the information they need to adjust their actions in ways that will lead to greater success in particular cases. The third way, and the one pursued in this Article, is to assess the system's overall performance as a means of guiding reform.

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Bill Whitford and I started down this third path in the early 1980s. Under a grant from the National Science Foundation, we conducted a rolling study of the first forty-three large public company reorganization cases to reach plan confirmation. We reported the results of that study in four principal articles published from 1990 to 1993.¹ The last of those articles, *Patterns in the Bankruptcy Reorganization of Large, Publicly Held Companies* (*Patterns* article) directly addressed the issue of Chapter 11 success. This Article revisits our 1993 conclusions in light of nearly three additional decades of data and scholarship. It reports success levels based on BRD definitions and data, and compares those definitions with the ones Whitford and I employed.

Bankruptcy scholars have sharp differences over how success should be defined. Some of us see quick refilings by the same companies as indicative of failure.² Others see them as merely the workings of an efficient market.³ Some of us see avoidable liquidations as bankruptcy system failure.⁴ Others see them as

1. Lynn M. LoPucki & William C. Whitford, *Bargaining Over Equity's Share in the Bankruptcy Reorganization of Large, Publicly Held Companies*, 139 U. PA. L. REV. 125, 143–58 (1990) [hereinafter LoPucki & Whitford, *Bargaining*]; Lynn M. LoPucki & William C. Whitford, *Corporate Governance in the Bankruptcy Reorganization of Large, Publicly Held Companies*, 141 U. PA. L. REV. 669, 681 (1993) [hereinafter LoPucki & Whitford, *Corporate Governance*]; Lynn M. LoPucki & William Whitford, *Patterns in the Bankruptcy Reorganization of Large, Publicly Held Companies*, 78 CORNELL L. REV. 597 (1993) [hereinafter LoPucki & Whitford, *Patterns*]; Lynn M. LoPucki & William C. Whitford, *Venue Choice and Forum Shopping in the Bankruptcy Reorganization of Large, Publicly Held Companies*, 1991 WIS. L. REV. 11; see also Lynn M. LoPucki & William Whitford, *Compensating Unsecured Creditors for Extraordinary Bankruptcy Reorganization Risks*, 72 WASH. U. L. Q. 1133 (1994); Lynn M. LoPucki & William C. Whitford, *Preemptive Cram Down*, 65 AM. BANKR. L.J. 625 (1991).

2. E.g., Edward I. Altman, *Revisiting the Recidivism—Chapter 22 Phenomenon in the U.S. Bankruptcy System*, 8 BROOK. J. CORP. FIN. & COM. L. 253, 260 (2014) (“[W]hen an emerged entity has to file again (the recidivism problem), one could, and I do, conclude that the original Chapter 11 was not successful.”); Lynn M. LoPucki & Joseph W. Doherty, *Delaware Bankruptcy: Failure in the Ascendancy*, 73 U. CHI. L. REV. 1387 (2006) (arguing that high refiling rates are indicative of failure); Lynn M. LoPucki & Joseph W. Doherty, *Why are Delaware and New York Bankruptcy Reorganizations Failing?*, 55 VAND. L. REV. 1933, 1958–66 (2002) [hereinafter LoPucki & Doherty, *Bankruptcy Reorganizations*] (arguing that Delaware’s refiling rate was inefficiently high); Lynn M. LoPucki & Sara D. Kalin, *The Failure of Public Company Bankruptcies in Delaware and New York: Empirical Evidence of a “Race to the Bottom”*, 54 VAND. L. REV. 231, 255–65 (2001) (arguing that Delaware’s refiling rates for the years 1991–96 constituted failure because they were higher than optimal); Ruth Sarah Lee, Comment, *Delaware’s Relevance in Chapter 22: Who Is “Courting Failure” Now?*, 31 REV. BANKING & FIN. L. 443, 457 (2011).

3. LYNN M. LOPUCKI, *COURTING FAILURE: HOW COMPETITION FOR BIG CASES IS CORRUPTING THE BANKRUPTCY COURTS* 106–18 (2005) (summarizing the refiling controversy); Kenneth Ayotte & David A. Skeel, Jr., *An Efficiency-Based Explanation for Current Corporate Reorganization Practice*, 73 U. CHI. L. REV. 425 (2006) (reviewing LYNN M. LOPUCKI, *COURTING FAILURE: HOW COMPETITION FOR BIG CASES IS CORRUPTING THE BANKRUPTCY COURTS* (2005)); Robert K. Rasmussen & Randall S. Thomas, *Whither the Race? A Comment on the Effects of the Delawareization of Corporate Reorganizations*, 54 VAND. L. REV. 283 (2001); David A. Skeel, Jr., *What’s So Bad About Delaware?*, 54 VAND. L. REV. 309 (2001).

4. E.g., Lynn M. LoPucki & Joseph W. Doherty, *Bankruptcy Survival*, 62 UCLA L. REV. 970 (2015); Lynn M. LoPucki, *A Team Production Theory of Bankruptcy Reorganization*, 57 VAND. L.

successes whenever the liquidation proceeds to creditors and shareholders exceed what those two parties would have received from reorganization.⁵ Data cannot easily bridge these kinds of differences. But so long as the disputants share a commitment to social welfare, data can chip away at them and clarify the choices.

Even if scholars had been in agreement on case-level success definitions, Whitford and I would still have faced the problem of how much case-level success was necessary to declare the Chapter 11 process a success. For example, Whitford and I found that 96% of the companies we studied confirmed plans of reorganization⁶ and that a business survived in 88% of the cases. Assuming those are valid success measures, one would still need to know whether higher rates could have been achieved and, if so, at what cost, before one could conclude that Chapter 11 was a success.

Tracking system performance over a long period of time solves a large part of that problem. Long-term tracking can show that better rates *could have been* achieved by showing that they *were* achieved during particular periods. The fluctuations in case-level success measures over time cannot show that Chapter 11 is achieving its full potential, but it can show the amount, at minimum, by which Chapter 11 is falling short of it. That is the technique employed in this Article.

In the *Patterns* article, Whitford and I eluded the definitional problem by reporting on nine measures of success without endorsing or defending any of them.⁷ Those measures are (1) plan confirmation, (2) entity survival, (3) business survival, (4) proportion-of-business surviving, (5) leverage emerging, (6) change in operating income, (7) refiling rate, (8) CEO turnover, and (9) shareholder retention of control. In part reflecting differences between us regarding the goals of Chapter 11, we concluded only that “[t]here are ‘successes,’ regardless of which definition of success is used” and so “Chapter 11 is not a complete failure.”⁸

This Article revisits the nine measures of success that Whitford and I reported on in the *Patterns* article, with twenty-six additional years of experience and data on 964 additional cases. My principal objective has been to determine whether Chapter 11 has become more or less successful by those measures. I conclude that Chapter 11 has become less successful by three of the seven

REV. 741 (2004); Elizabeth Warren, *Bankruptcy Policymaking in an Imperfect World*, 92 MICH. L. REV. 336, 355 (1993) (“Business closings affect employees who will lose jobs, taxing authorities that will lose ratable property, suppliers that will lose customers, nearby property owners who will lose beneficial neighbors, and current customers who must go elsewhere.”).

5. Alan Schwartz, *A Contract Theory Approach to Business Bankruptcy*, 107 YALE L.J. 1807, 1818 (1998) (“To find that liquidation value exceeds going-concern value, however, is to find that the firm’s physical assets are best redeployed in other uses.”).

6. LoPucki & Whitford, *Patterns*, *supra* note 1, at 600.

7. *Id.* at 598 (“We do not believe that all of these variables provide sensible criteria for a normative evaluation of the ‘success’ of Chapter 11.”).

8. *Id.* at 611.

LoPucki-Whitford criteria for which data are available.⁹ The courts confirm plans in a significantly smaller proportion of cases, a significantly smaller proportion of companies survive, and a significantly smaller proportion of CEOs are replaced. This apparent decline in Chapter 11's performance is generally consistent with the assertions of leading academics and practitioners.¹⁰

In one respect, Chapter 11 has become more successful. The surviving companies emerge at a larger proportion of their pre-filing asset size.

With respect to three other LoPucki-Whitford measures, Chapter 11 outcomes have not changed significantly. Companies continue to emerge with too much leverage. The operating income of surviving companies continues to increase only moderately during reorganization. Refilings continue to occur at about the same levels.

The declines in observed success might be attributable to changes in the quality of filing companies or in prevailing economic conditions over time rather than to the performance of the Chapter 11 system. But if they were, data on the filing companies and the prevailing economic conditions should reflect those changes. My preliminary investigation of filing company quality discovered no statistically significant decline in the filing companies' operating incomes or debt-to-equity ratios for the period since 1980.

In each of the first five Sections of this Article, I examine one or more of the success measures that Whitford and I reported on in the *Patterns* article. I summarize the LoPucki-Whitford findings, identify and explain any differences between our success measures and the BRD's success measures, discuss the reasons for those differences, and report on how the "success" of Chapter 11 has varied since the LoPucki-Whitford study. In Section VI, I explain my finding of no statistically significant increase in the economic or financial distress of the filing companies. In Section VII, I conclude that, by the corresponding BRD measures, Chapter 11 is, on the whole, less successful than it was at the time Whitford and I studied it. I also conclude that the measures Whitford and I employed remain coherent and arguably still the best measures of system performance available.

I. PLAN CONFIRMATION

In 2009, Elizabeth Warren and Jay Westbrook, two of the leading bankruptcy scholars of our era, wrote that "plan confirmation is surely the central measure of success in Chapter 11"¹¹ and concluded that "confirmation results constitute the most important single criterion for judging the benefits of

9. Data are not available for entity survival or shareholder retention of control.

10. E.g., Douglas G. Baird & Robert K. Rasmussen, *The End of Bankruptcy*, 55 STAN. L. REV. 751 (2002); Harvey R. Miller & Shai Y. Waisman, *Is Chapter 11 Bankrupt?*, 47 B.C. L. REV. 129, 180 (2005).

11. Elizabeth Warren & Jay Lawrence Westbrook, *The Success of Chapter 11: A Challenge to the Critics*, 107 MICH. L. REV. 603, 611 (2009).

the Chapter 11 system.”¹² They present these arguments for confirmation as the measure of success:

A system that does not lead to confirmed plans cannot achieve its objectives. For example, filing for reorganization is unlikely to produce settlement and a friendly dismissal unless the debtor has a reasonable probability of confirming a plan if it remains in Chapter 11—and the creditors recognize that likelihood. By the same token, many businesses would not have an opportunity to emerge from reorganization with a chance to succeed in the future were it not for a plan that discharged their old debts and gave them a plausible financial prospect. Further, confirmation generally requires the debtor to accomplish a number of tasks suggestive of future success, including garnering the support of a supermajority of creditors and persuading a court of a plan’s feasibility. Liquidation plans can also be categorized as successes.¹³

Their argument overvalues confirmation as a criterion and conflates it with other success criteria, particularly plan performance and business survival.

First, confirmations are not necessary to incentivize creditors to settle. Creditors might feel an even greater need to settle in a Chapter 11 process that allowed cases to wander aimlessly without the possibility of confirmation.

Second, confirmation is not success merely because it discharges debt, thereby leaving the debtor with a “plausible financial prospect.”¹⁴ Giving companies second chances is not the primary goal of Chapter 11. The requirement that plan confirmation be denied if the plan is not feasible¹⁵ makes clear that plan confirmation is a less important goal than plan performance, and so a less direct measure of success.

Warren and Westbrook’s third justification for considering confirmation a measure of success is that, to obtain confirmation, the debtor must “accomplish a number of tasks suggestive of future success.”¹⁶ In essence, Chapter 11 presents a procedural challenge to debtors. Those who meet the challenge by qualifying for a confirmation order have demonstrated their competence and so are likely to have future success. I agree. But the argument leads to the conclusion that plan confirmation *predicts future* success, not that confirmation *is* that success.

For confirmation to be a direct measure of success, confirmation itself must be a system goal. Two other arguments lead to the conclusion it is. First, provisions of Chapter 11 treat confirmation as a system goal. That is, the provisions regard confirmation as desirable and regard the alternative dispositions—dismissal and conversion—as punishments for failure. For

12. *Id.* at 612; see also Anne Lawton, *Chapter 11 Triage: Diagnosing A Debtor’s Prospects for Success*, 54 ARIZ. L. REV. 985, 1004–05 (2012) (using plan confirmation as the measure of Chapter 11 success).

13. Warren & Westbrook, *supra* note 11, at 611–12 (footnote omitted).

14. *Id.* at 612.

15. 11 U.S.C. § 1129(a)(11) (2012).

16. Warren & Westbrook, *supra* note 11, at 612.

example, under Bankruptcy Code § 1112(b), the “reasonable likelihood that a plan will be confirmed” is adequate justification for denying a dismissal or conversion. Under Bankruptcy Code § 1146, certain taxation is barred if a plan is confirmed. And under Bankruptcy Code § 1121(e), certain deadlines may be extended if the debtor “demonstrates by a preponderance of the evidence that it is more likely than not that the court will confirm a plan within a reasonable period of time.”

Second, the entry of a confirmation order evidences the system’s success in affording creditors and other parties certain participatory opportunities. They include debtor and court disclosures and voting or election opportunities. Affording these opportunities is plausibly a system goal independent of the case or company outcome. Plan confirmation is reasonable proof that the system afforded the opportunities in the particular case and hence a reasonable measure of the system’s success in that case.

To illustrate, to confirm a plan the debtor must have provided a disclosure statement that explained to some extent what happened to the creditors’ money and what courses of action, if any, remain open to the creditors. To reach confirmation, the system must have offered the parties in interest certain rights to vote on the plan, or make elections under the plan. A bankruptcy judge must have reviewed specific aspects of the case on the parties’ behalf, and provided a written representation of having done so. In dismissal or conversion cases, the creditors and other parties may have received none of these benefits.

If the confirmation rate is considered a valid criterion for measuring the success of Chapter 11, Chapter 11 was a resounding success with respect to large public companies in its first eight years. In our *Patterns* article, Whitford and I reported a 96% confirmation rate.¹⁷

Figure 1 shows the confirmation rate for large public company bankruptcies by case disposition year for the period from 1982 through 2014.¹⁸ For the years 1982–88, the years covered by the LoPucki-Whitford study, the Figure shows a confirmation rate of 100%. The difference between the 96% we reported then and the 100% I report now results from a difference in the protocols for inclusion in the two data sets. Whitford and I based eligibility for inclusion in our study on asset size reported by the Securities and Exchange Commission on its list of large public company bankruptcies. That list was later discontinued. Eligibility for inclusion in the BRD is based on asset size reported on a form 10-K for the last period ending prior to bankruptcy. None of the three converted or dismissed cases reported in the *Patterns* article qualified for inclusion in the BRD.

The courts confirmed plans in all of the first eighty-one BRD cases resolved. The first deviation came in 1991, when five of the twenty-one cases disposed of (24%) were converted to Chapter 7.

17. LoPucki & Whitford, *Patterns*, *supra* note 1, at 600.

18. The LoPucki-Whitford study included only cases filed after October 1, 1979. No plan was confirmed in any of those cases prior to 1982.

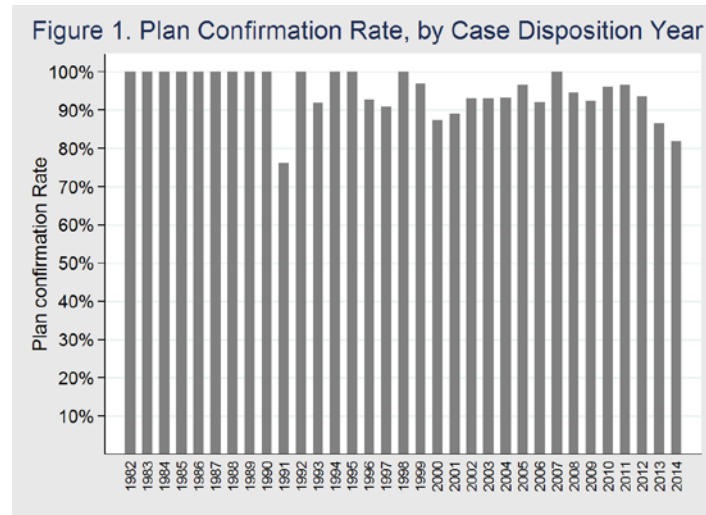


Figure 1 shows a downward trend in plan confirmation. The trend is statistically significant ($p=.006$).¹⁹ Using plan confirmation as the criterion for success, Chapter 11 started strongly and declined over time.

Table 1 shows the decline in plan confirmation to have occurred principally in § 363 sale (363 sale) cases. In the absence of a 363 sale of all or substantially all of the debtor's assets, plan confirmation occurred in 740 of 776 cases (95%). But if the court permitted the debtor to sell all or substantially all of its assets in a 363 sale prior to case disposition, plans were confirmed in only 152 of 196 cases (78%). To put it another way, 363 sale cases constituted only 17% (152 of 892) of the cases disposed of through plan confirmation, but they constituted 55% (44 of 80) of the cases disposed of through conversion or dismissal.

19. Ordinary least squares (OLS) regression on data for 970 cases.

Table 1. Number of Cases Resulting in Confirmed Plans, by 363 Sale Presence

	No 363 sale	363 sale	Total
No plan confirmed	36 (5%)	44 (22%)	80 (8%)
Plan confirmed	740 (95%)	152 (78%)	892 (92%)
Total	776 (100%)	196 (100%)	972 (100%)

Chi-square $p < .000$

Responding to allegations that Chapter 11 imposed “endless delays that prevent the system from yielding much value,”²⁰ Warren and Westbrook proposed a second criterion for success—the time it took to reach dismissal or conversion in the failed cases. They reasoned that “quicker action on cases that would fail means that fewer resources were likely expended on those cases and that creditors were held back from enforcing their contract rights for a shorter time.”²¹ They gave Chapter 11 high marks in part because “substantial screening occurred early in a case. . . . [I]f a Chapter 11 case was not dismissed or converted within six months after filing, it stood a good chance of confirming a plan.”²²

Warren and Westbrook reported that “[a]lmost half the unsuccessful cases were jettisoned within six months.”²³ In the context of large public company cases, Chapter 11 performed considerably worse. Only 17 of the 79 conversions or dismissals (22%) occurred in the first 180 days of the case.

Table 2 shows the mean number of days from case filing to case disposition for failed cases with and without 363 sales and for successful cases with and without 363 sales. The failed cases averaged 686 days in duration, which is 31% longer than the successful case average of 522 days. By Warren and Westbrook’s quick-screening criterion, Chapter 11 is performing poorly in the large public company context. Confirmations occur much earlier in cases than do conversions and dismissals.

20. Warren & Westbrook, *supra* note 11, at 605.

21. *Id.* at 620.

22. *Id.*

23. *Id.* at 603.

Table 2. Mean Days from Filing to Confirmation,
by Plan Confirmation and 363 Sale Presence

	No 363 sale	363 sale	All cases
No plan confirmed	647 <i>N</i> =36	718 <i>N</i> =44	686 <i>N</i> =80
Plan confirmed	481 <i>N</i> =738	721 <i>N</i> =152	522 <i>N</i> =890
All cases	489 <i>N</i> =774	720 <i>N</i> =196	536 <i>N</i> =970

Table 2 shows the 363 sale cases to be the principal locus of delay. Scholars have generally assumed that when debtors sell all or substantially all of their assets in quick 363 sales, quick distributions follow.²⁴ But, as has previously been noted,²⁵ the time from case filing to plan confirmation is considerably longer in 363 sale cases.

At 718 days on average, failed 363 sale cases remained pending 11% longer than the 647-day average for failed non-363 sale cases. And at 721 days on average, successful 363 sale cases remained pending a whopping 50% longer than the 481 days for successful non-363 sale cases. By Warren and Westbrook's quick-screening criterion, even the 363 sale cases that reach plan confirmation are failures.

II. ENTITY SURVIVAL

By "entity survival" Whitford and I meant that either (1) an operating company survived or (2) an entity owning tax net operating loss carryovers

24. E.g., George W. Kuney, *Let's Make It Official: Adding an Explicit Preplan Sale Process as an Alternative Exit from Bankruptcy*, 40 HOUS. L. REV. 1265, 1271-72 (2004) ("Further, once reduced to liquid assets, proposal and confirmation of a strict or absolute priority plan or conversion of the case to one under Chapter 7 should lead to speedy distributions to creditors and a minimum of haggling and litigation over proper priorities.") (footnotes omitted); James J. White, *Death and Resurrection of Secured Credit*, 12 AM. BANKR. INST. L. REV. 139, 164 (2004) (stating that non-plan sales provide "a lower priced reorganization. Part of that comes from reduced administrative fees, but more of it comes from the shortening of the term of their non interest-bearing loan. Presumably the ultimate payout in these cases comes sooner than in other chapter 11s . . .").

25. James C. Behrens, *Don't Fear the 363 Sale, Fear the Delay that Follows It*, AM. BANKR. INST. J., Mar. 2014, at 42, 43 (reporting an average time from filing to confirmation of 438 days for non-363 sale cases and 724 days for 363 sale cases); Lynn M. LoPucki & Joseph W. Doherty, *Bankruptcy Fire Sales*, 106 MICH. L. REV. 1, 26-27 (2007) ("In the sale cases we studied, confirmation did not occur until an average of 611 days after the filing of the case, as compared with only 314 days for reorganization cases.").

(NOLs) survived.²⁶ By this measure, thirty-eight of the forty-three companies we studied (88%) survived.²⁷ But six of the thirty-eight survivors (14% of the forty-three cases) were entities with few or no tangible assets that continued in existence in order to reap the benefit of their NOLs.²⁸

During the period covered by our study, debtors with NOLs could sell their businesses, buy other businesses during or after bankruptcy, and apply the NOLs against income of the acquired businesses.²⁹ That created an incentive for a legal entity with NOLs to continue in existence even if the entity operated no business. For example, McLouth Steel sold all of its assets during its bankruptcy case, changed its name to MLX upon emerging, and then purchased several income-earning businesses. Air Florida sold its airline during bankruptcy, bought a different airline, and emerged as Jet Florida.

At about the time our study concluded, Congress amended the tax laws to eliminate this use of NOLs.³⁰ As a result, this measure of survival—as distinguished from business survival—is no longer of any practical importance.

III. BUSINESS SURVIVAL

The Bankruptcy Code's legislative history clearly identifies saving companies and preserving jobs as intended bankruptcy system goals.

The purpose of a business reorganization case, unlike a liquidation case, is to restructure a business's finances so that it may continue to operate, provide its employees with jobs, pay its creditors, and produce a return for its stockholders. . . . It is more economically efficient to reorganize than to liquidate, because it preserves jobs and assets.³¹

Several courts have stated that "the paramount policy and goal of Chapter 11, to which all other bankruptcy policies are subordinated, is the rehabilitation of the debtor."³²

26. LoPucki & Whitford, *Patterns*, *supra* note 1, at 601–02.

27. *Id.* at 601.

28. *Id.*

29. LoPucki & Whitford, *Bargaining*, *supra* note 1, at 153 n.62.

30. *Id.*; see 26 U.S.C. § 382 (2012).

31. H.R. REP. 95-595, at 220 (1977); see *NLRB v. Bildisco & Bildisco*, 465 U.S. 513, 528 (1984) ("The fundamental purpose of reorganization is to prevent a debtor from going into liquidation, with an attendant loss of jobs and possible misuse of economic resources." (citing H.R. REP. 95-595, at 220)); see also George W. Kuney, *Misinterpreting Bankruptcy Code Section 363(f) and Undermining the Chapter 11 Process*, 76 AM. BANKR. L.J. 235, 235 (2002) (explaining that the practice of selling entire companies outside the plan process is based on a misinterpretation of the language of the Bankruptcy Code).

32. *In re Ionosphere Clubs, Inc.*, 98 B.R. 174, 176 (Bankr. S.D.N.Y. 1989); see, e.g., *In re Jeans.com, Inc.*, 502 B.R. 250, 255 (Bankr. D.P.R. 2013) (quoting *Ionosphere Clubs*, 98 B.R. at 176); *In re Pac. Gas & Elec. Co.*, 283 B.R. 41, 59 (Bankr. N.D. Cal. 2002); *In re Teligent, Inc.*, 282 B.R. 765, 772 (Bankr. S.D.N.Y. 2002) (quoting *Ionosphere Clubs*, 98 B.R. at 176); *In re Chateaugay Corp.*, 118 B.R. 19, 22 (Bankr. S.D.N.Y. 1990) (quoting *Ionosphere Clubs*, 98 B.R. at 176); *In re Buttonwood Partners, Ltd.*, 111 B.R. 57, 61 (Bankr. S.D.N.Y. 1990) (quoting *Ionosphere Clubs*, 98 B.R. at 176).

That goal is nevertheless controversial. Some scholars argue that liquidation is preferable to reorganization whenever liquidation will yield more for creditors and shareholders than reorganization.³³ In doing so, they ignore “the massive economic and social costs that company failure imposes on employees, suppliers, customers, and communities.”³⁴

Survival is also difficult to measure. In the *Patterns* article, Whitford and I considered “a business to have survived only if the core business at filing remained intact in a single entity through confirmation.”³⁵ We distinguished survival from “shattering,” which we described as occurring when “a large portion of the company as it existed at filing was sold off in discrete units to different buyers” or the company was “shut down for lack of a buyer.”³⁶

By that measure, we concluded that twenty-two of the forty-three companies studied (51%) survived. In seven of the twenty-two cases (32%), the surviving business was sold to a third party.³⁷

The core-business-survival measure requires both a relatively large amount of information about the debtor and the exercise of judgment by the researchers. In the LoPucki-Whitford study we had access to that information because we interviewed participants in each of the cases. We could exercise judgment because we could consider and classify all of the cases at the same time.

Those two problems are unmanageable in a data-collection process that extends over several decades. The BRD lacks the resources to conduct interviews in every case. Any exercise of judgment must be made at different times and ultimately by different persons for different cases. To maintain the credibility of the data, BRD classifications must be based on express standards that can be applied using readily available data.

As a result, the BRD applies an entirely different measure of company survival. A company survives under the BRD measure if at least one independent operating company continues in business indefinitely.³⁸ A company

33. As Professor Alan Schwartz put it:

[A] conflict exists between the goals of job preservation and maximizing the bankruptcy monetary return only with regard to firms whose liquidation values exceed their reorganization values. To find that liquidation value exceeds going-concern value, however, is to find that the firm’s physical assets are best redeployed in other uses.

Schwartz, *supra* note 5, at 1818.

34. LoPucki & Doherty, *supra* note 4, at 972–73; see Warren, *supra* note 4, at 355 (“Business closings affect employees who will lose jobs, taxing authorities that will lose ratable property, suppliers that will lose customers, nearby property owners who will lose beneficial neighbors, and current customers who must go elsewhere.”).

35. LoPucki & Whitford, *Patterns*, *supra* note 1, at 602.

36. *Id.*

37. *Id.* at 602–03.

38. Lynn M. LoPucki, PROTOCOLS FOR THE UCLA-LOPUCKI BANKRUPTCY RESEARCH DATABASE 20–21 (May 30, 2015), available at <http://lopucki.law.ucla.edu/documentation/Protocols.pdf>. The difficulties in the use of this measure are discussed in LoPucki & Doherty, *supra* note 4, at 979–80.

also survives if it is acquired but operated separately from its acquirer.³⁹ Thus, businesses may survive under the BRD standard when they are sold in 363 sales or pursuant to confirmed plans. Companies do not survive, however, if they are merged into other companies during, or at the conclusion of, the bankruptcy case.

Although only 51% of the companies in the LoPucki-Whitford study survived by the core-business-survival measure, 89% of those same companies survived by the BRD measure (thirty-three of thirty-seven). “Survival” is highly sensitive to how it is measured.

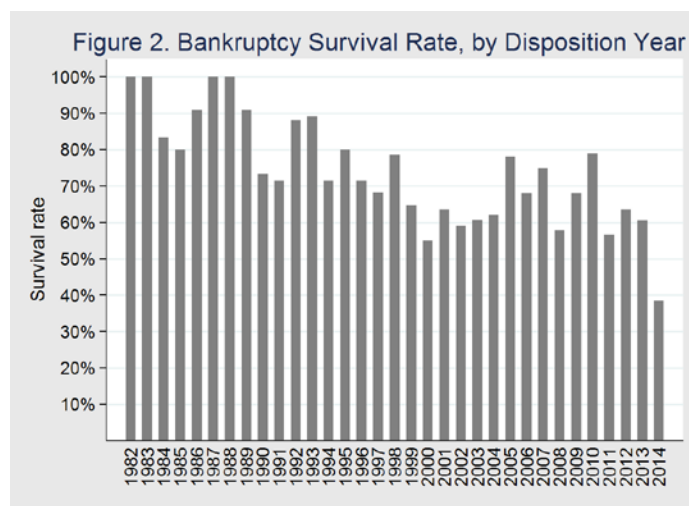


Figure 2 shows how the rate of survival changed over time, using the BRD measure of survival. The figure shows a distinct and statistically significant decline in the survival rate over time ($p < .001$). For large public companies, at least, Chapter 11 has increasingly become a transition out of existence.

Table 3 shows the important role that 363 sales play in business survival. The survival rate for companies that are sold in 363 sales (38%) is less than half the survival rate for companies that are not (78%).

39. LoPucki, PROTOCOLS FOR THE UCLA-LOPUCKI BANKRUPTCY RESEARCH DATABASE, *supra* note 38, at 20–21.

Table 3. Business Survival, by 363 Sale Presence

	No 363 sale	363 sale	Total
Did not Survive	161 (22%)	112 (62%)	273 (29%)
Survived	585 (78%)	68 (38%)	653 (71%)
Total	746 (100%)	180 (100%)	926 (100%)
<i>Chi-square $p < .001$</i>			

The companies that are sold in 363 sales are in significantly greater economic distress before filing their bankruptcy cases than are the companies that are not sold in 363 sales ($p < .001$).⁴⁰ Thus 363 sales are the *path* of failure, but may not be the *cause* of failure.

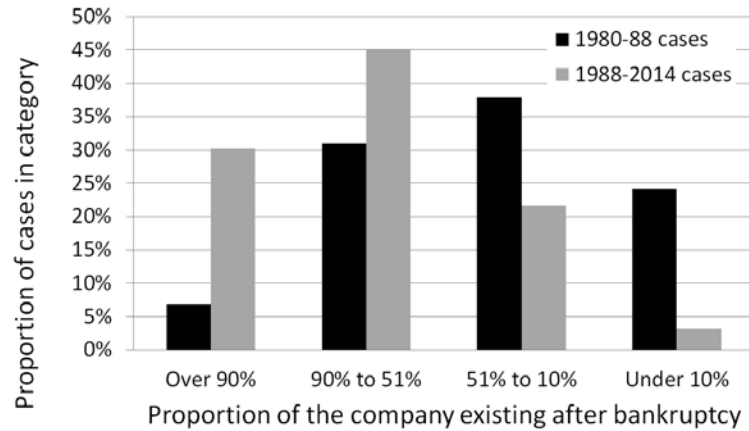
IV. REDUCTION IN ASSET SIZE

In the *Patterns* article, we reported sharp declines in companies' assets from before to after their reorganizations. Based on the amounts of the declines, we concluded that the distinction between "reorganization" and "liquidation" was of limited usefulness with respect to large public company bankruptcies because "[n]early all of them liquidate some assets and a few liquidate all assets."⁴¹ The data that prompted that assessment are represented by the black bars on Figure 3 (labeled "1980–88 cases").

40. This finding is the result of a t-test performed on a variable that is the company's earnings before interest and taxes (EBIT) reported on a 10-K for the last period ending prior to bankruptcy, divided by the company's assets on the same report.

41. LoPucki & Whitford, *Patterns*, *supra* note 1, at 605.

Figure 3. Distribution of Surviving Companies
Across Survival-Proportion Categories



Twenty-nine of the 43 companies Whitford and I studied (67%) reported their assets before and after bankruptcy. Of the 29, 7 (24%) emerged at less than 10% of their former size; 11 (38%) emerged at 10% to 51% of their former size; 9 (31%) emerged at 51% to 90% of their former size; and only 2 (7%) emerged at more than 90% of their former size.⁴²

For the period from January 1, 1989 to the present, 318 of the 596 surviving BRD companies (53%) reported their assets after bankruptcy. Of the 318, 10 (3%) emerged at less than 10% of their former size; 69 (22%) emerged at 10% to 51% their former size; 143 (45%) emerged at 51% to 90% of their former size; and 96 (30%) emerged at more than 90% of their former size.

The decline in the proportion of companies reporting assets after bankruptcy, from 67% in the LoPucki-Whitford study to 53% in the post-LoPucki-Whitford study period, results from at least two trends. First, fewer companies are surviving bankruptcy. Second, a smaller portion of the surviving companies remain public after bankruptcy. Because the proportion of companies reporting declined, the data for the latter period are not directly comparable to the data for the prior period.

Figure 3 shows that after the period covered by the LoPucki-Whitford study, surviving companies emerged from bankruptcy at much closer to their former asset sizes than they had during the period covered by the LoPucki-Whitford study. For the companies emerging at less than 10% of their former size, a large portion of the decline is easily explained. As previously noted, several companies in the LoPucki-Whitford study emerged as corporate shells

42. *Id.* at 606 tbl.1.

whose only assets were NOLs.⁴³ Changes in federal tax laws eliminated the incentive to emerge as a corporate shell owning only NOLs, and no company did so in the period after 1988.

For companies emerging at more than 10% of their former size, the cause of the differences in proportions of cases is less clear. Companies are more likely to have received debtor-in-possession (DIP) loans in the period since 1988.⁴⁴ The receipt of DIP loan proceeds increases both the debtor's assets and its liabilities, thus increasing its asset size. Some of that value may be dissipated during the case, but some will likely remain on the post-confirmation balance sheet. That may explain why more companies are emerging at more than half their former sizes. In addition, because companies can finance their operations through DIP loans, they may have less need to finance their operations through partial liquidation. Partial liquidations reduce asset size.

Case duration may also partly explain the increase in the asset sizes of emerging companies. The average duration of cases disposed of in the period covered by the LoPucki-Whitford study was 887 days. The average duration of cases disposed of since the period covered by the LoPucki-Whitford study was 521 days. The latter is only 59% of the former. Debtors in the LoPucki-Whitford study may have disposed of more assets during reorganization simply because they had more time in which to do so. For example, if debtors in the two periods had steadily disposed the same amounts of assets over the 887 days after filing their cases, only about 59% of the asset dispositions in the post-LoPucki-Whitford cases would have occurred during the bankruptcy cases. The rest of the sales would have occurred after case disposition. The decline in the companies' asset sizes during bankruptcy would have been greater for companies disposed of during the period covered by the LoPucki-Whitford study than in the period since—precisely the pattern observed.

Other things being equal, companies that emerge with a greater proportion of their assets should be considered more successful. But that does not necessarily mean that the data reported in this Section indicate that reorganization has become more successful since 1988. A larger portion of companies have liquidated entirely since 1988. Those companies did not report their assets after the disposition of their cases, and so are not included in the data reported in Figure 3.

V. FINANCIAL AND ECONOMIC SUCCESS

Financial distress is the inability to pay debts. It follows that reduction of a company's debt to a level the company can pay is a reorganization success. Economic distress is the inability to generate revenues sufficient to cover

43. See *supra* Section II.

44. Sandeep Dahiya, Kose John, Manju Puri & Gabriel Ramirez, *Debtor-in-Possession Financing and Bankruptcy Resolution: Empirical Evidence*, 69 J. FIN. ECON. 259, 260 (2003) ("Although DIP financing has been available since the 1978 Bankruptcy Reform Act, it was not until the wave of bankruptcies in the early 1990s that DIP financing grew in size and importance.").

expenses.⁴⁵ It follows that increasing the company's operating income to a level greater than the company's expenses is also a reorganization success.

A. *Leverage Emerging*

A principal goal of bankruptcy reorganization is to reduce debt to a level the debtor can pay. In the *Patterns* article,⁴⁶ we noted Professor Mark Roe's theory that the dynamics of reorganization caused firms to emerge from reorganization with excessive levels of debt.⁴⁷ To investigate, Whitford and I compared the debt-to-asset ratios for the twenty-six emerging companies we studied with the average debt-to-asset ratios of companies in their industries. We found that nineteen of the twenty-six companies in our study (76%) had debt-to-asset ratios greater than those averages. We concluded that companies were emerging from reorganization with too much debt.⁴⁸

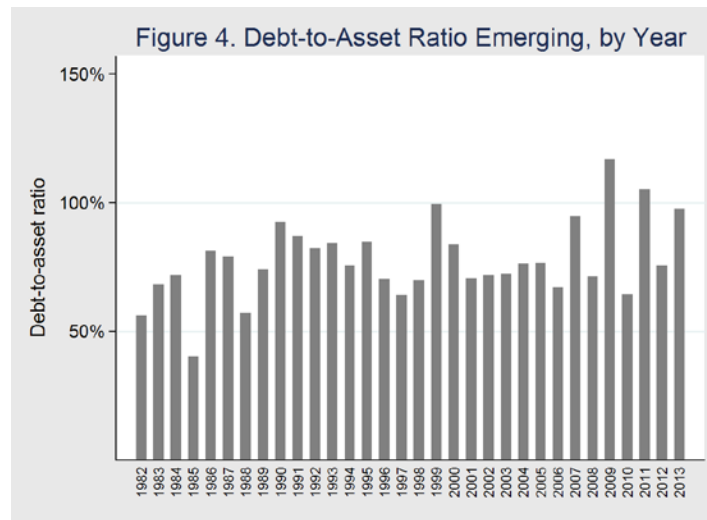


Figure 4 shows that the debt-to-asset ratios of emerging companies have continued to rise in the ensuing years. The rise is not, however, statistically

45. Robert K. Rasmussen & Randall S. Thomas, *Timing Matters: Promoting Forum Shopping by Insolvent Corporations*, 94 NW. U. L. REV. 1357, 1387 n.143 (2000) (referring to "the now standard distinction between financial distress—inability to pay debts—and economic distress—inability of revenues to cover costs").

46. LoPucki & Whitford, *Patterns*, *supra* note 1, at 606–07.

47. Mark J. Roe, *Bankruptcy and Debt: A New Model for Corporate Reorganization*, 83 COLUM. L. REV. 527, 536–48 (1983); see Stuart C. Gilson, *Transactions Costs and Capital Structure Choice: Evidence from Financially Distressed Firms*, 52 J. FIN. 161, 165–66 (1997) (finding that the percentage of firms emerging from bankruptcy with leverage in excess of the industry median is 65.5% using market value of assets and 70% using book value of assets).

48. *Id.* at 608.

significant, whether measured as a trend over the entire period ($p=.718$) or as the difference between the LoPucki-Whitford cases and the more recent cases ($p=.642$). In reducing companies' debt-to-asset ratios, reorganization is performing about as poorly as it was three decades ago.

B. Operating Income

Chapter 11 is commonly described as sheltering debtors against collection action while the debtors attempt to turn their businesses around.⁴⁹ Scholars describe businesses with positive operating income as "viable,"⁵⁰ and some recommend that nonviable businesses be terminated.⁵¹ Achieving positive operating income in a surviving business is generally considered a measure of reorganization success.⁵²

In the *Patterns* article, we reported that of the twenty companies for which data were available, ten had suffered operating losses in the year prior to bankruptcy.⁵³ Of those ten, six "experienced significant increases in asset size and operating income in the three years after confirmation."⁵⁴ "Two of the other four companies experienced steady financial performance during these years."⁵⁵ We concluded that "Chapter 11 has sometimes been useful in dealing with . . . failure to earn operating profits."⁵⁶ Both the success standard we applied and the conclusion we drew from its application are too vague to support replication.

The two success standards I apply here in place of them are both measures of whether the companies achieved increases in earnings before interest and taxes (EBIT) from their last 10-Ks filed prior to bankruptcy to their first 10-Ks filed after bankruptcy. I measure the increases two ways. The first is whether EBIT after bankruptcy was higher or lower than EBIT before bankruptcy. Of the 318 cases for which data are available, the EBIT of 186 (58%) increased during the reorganization period and the EBIT of 132 (42%) decreased during that period. Over the period of more than thirty years, the proportion of companies with increasing EBIT increased slightly, but the increase was not

49. E.g., *The Walking Dead—Corporate Restructuring*, ECONOMIST, Dec. 15, 2007, at 13 ("[Chapter 11] protects a company from its creditors and allows its managers to stay in control until they can come up with a plan to reorganise the business . . .").

50. E.g., Lynn M. LoPucki, *A General Theory of the Dynamics of the State Remedies/Bankruptcy System*, 1982 WIS. L. REV. 311, 327 (defining "viable"); Thomas H. Vickers, *Advising Financially Troubled Professional Entities*, 5 S. CAL. INTERDISC. L.J. 469, 472 (1997) (quoting that definition).

51. Ayotte & Skeel, *supra* note 3, at 438 n.32, 468 ("A firm in economic distress is not viable and should be shut down.").

52. Edith Shwalb Hotchkiss, *Postbankruptcy Performance and Management Turnover*, 50 J. FIN. 3, 7–8 (1995) (treating "accounting measures of profitability" as one of the three measures of success in a study of Chapter 11 cases).

53. LoPucki & Whitford, *Patterns*, *supra* note 1, at 609.

54. *Id.*

55. *Id.*

56. *Id.*

statistically significant ($p=.128$). By this measure, more debtors may be increasing their EBIT during bankruptcy, but if such a trend exists, it is modest.

The second measure was whether the debtor's EBIT changed from a negative figure to a positive figure or vice versa. The results are shown in Table 4.

Table 4 shows remarkably little movement from negative to positive EBIT among the 318 companies that reported post-emergence financial data. Most companies that had positive EBIT prior to bankruptcy also had positive EBIT after bankruptcy. Most companies that had negative EBIT prior to bankruptcy also had negative EBIT after bankruptcy. Of the one-third of companies (106 of 318) that changed their EBIT status during bankruptcy, 42 (40%) changed from positive to negative EBIT. At the gross level, measured by this dummy variable, reorganization seems not to be very effective against economic distress.

Table 4. Change in EBIT During Bankruptcy (emerging companies only)

	Negative EBIT emerging	Positive EBIT emerging	Total emerging
Negative EBIT before	78 (55%)	64 (45%)	142 (100%)
Positive EBIT before	42 (24%)	134 (76%)	176 (100%)
Total	120 (38%)	198 (62%)	318 (100%)

Chi-square $p<.001$

The proportion of companies emerging with positive EBIT increased slightly over the study period, but the increase was not statistically significant ($p=.239$). Thus, my results using positive EBIT as the measure of success are consistent with my results using change in EBIT as the measure of success. More debtors may be achieving positive EBIT during bankruptcy, but if such a trend exists, it is modest.

C. Refiling

In the *Patterns* article, we noted that twelve of the thirty-eight surviving companies from our study (32%) had refiled bankruptcy by July 1, 1992.⁵⁷ Depending on the company's plan confirmation date, that was a following period of about four to ten years.

57. *Id.* at 608.

A later study using BRD data showed that refilings peaked in the third year after plan confirmation and then steadily declined.⁵⁸ As more data accumulated over the years, that pattern became even clearer. Figure 5 shows all refilings by BRD emerging companies, by the number of years after the company's emergence.

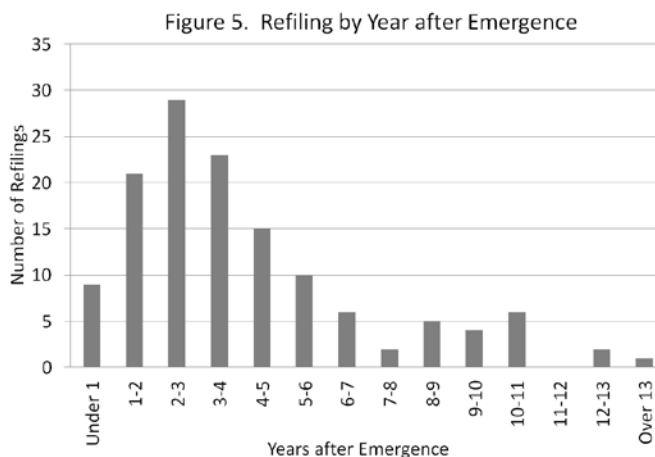


Figure 5 shows that refilings peak between two and three years after the companies emerge from their earlier bankruptcies. Refilings then decline until at least the end of the sixth year after confirmation. From the end of the sixth year until the end of the thirteenth year, refilings are erratic. After thirteen years, they disappear almost entirely.

That almost complete disappearance is an artifact of the data. The pool of companies followed is fixed at the time they emerge. The pool shrinks over time as companies refile, liquidate, or merge with other companies. By the fourteenth year after emergence, hardly any companies remain in the pool and hence hardly any refilings occur.

From Figure 5 I infer that the large majority of refilings that occur in the first five years after confirmation, and probably some that occur in the sixth and seventh years after confirmation, result from problems existing, but not resolved, during the reorganization process. Based on this inference, the BRD standardized the reporting period for refilings at five years.

Because the earlier reorganization caused most refilings that occurred within five years, refilings that occurred within five years are measures of reorganization success. Most refilings that occur more than five years after emergence are probably unrelated to the earlier reorganization. They merely

58. LoPucki & Kalin, *supra* note 2, at 247 fig.1 (graph of the refiling rate by year after confirmation).

reflect the background level of refiling for companies of the kind represented. Accordingly, those refilings are not measures of reorganization success.

Figure 6 shows the proportions of companies emerging each year that refiled within five years of emergence. In other words, it shows how the refiling rate has fluctuated over time. Companies emerging in 2009 and later years are not shown because five-year refiling data are not yet available for those companies.

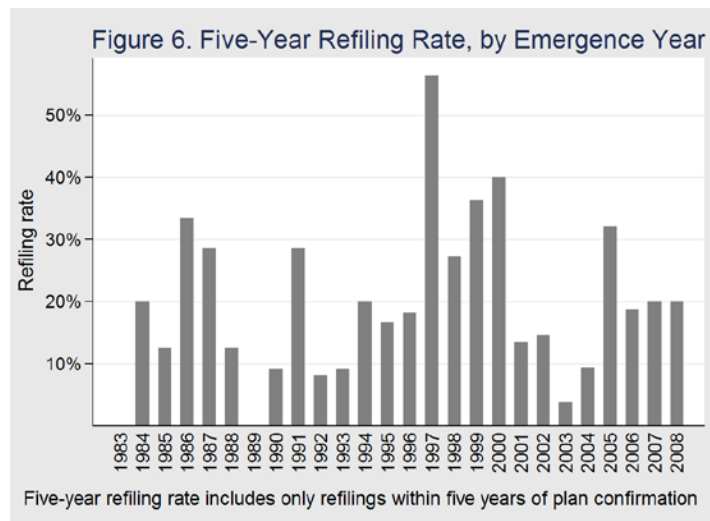


Figure 6 shows that the refiling rate fluctuations have been wide, but have followed no obvious pattern. On average, the rate of refiling has increased over time, but the increase is not statistically significant ($p=.868$). By the measure of five-year refiling, Chapter 11's performance is essentially unchanged since the early 1980s.

VI. CHANGES IN CONTROL

The first empirical studies of CEO turnover in large public company bankruptcies were published in the early 1990s. Prior to that time, scholars and other critics painted Chapter 11 as a haven for bad managers.⁵⁹ Since that time, empirical studies using a variety of measures of management turnover have

59. See e.g., LAURENCE H. KALLEN, CORPORATE WELFARE: THE MEGABANKRUPTCIES OF THE 80S AND 90S, 468 (1991) ("Often . . . one must wonder just what has happened [in a Chapter 11 case]. The answer is simple: the jobs, salaries, and perks of those in the executive suite . . . have been 'saved.'"); Michael Bradley & Michael Rosenzweig, *Time to Scuttle Chapter 11*, N.Y. TIMES, Mar. 8, 1992, at F13 ("[W]e believe that the principal beneficiaries of Chapter 11 are corporate managers. . . . Chapter 11 . . . in fact serves mainly to protect managers' jobs.").

shown unquestionably high turnover rates for CEOs both before bankruptcy⁶⁰ and for various periods including bankruptcy.⁶¹ Based on interviews with case participants, Whitford and I found evidence that creditors participated in causing a large proportion of the departures.⁶² We concluded that “[f]or the managers of publicly held companies, Chapter 11 is not the safe harbor that some have assumed.”⁶³

The rates of management turnover found in those studies are difficult to compare because they are measured for different periods in relation to bankruptcy. Instead of choosing among those measures, the BRD reports the name of the CEO at the filing of the bankruptcy case, the date that person became the CEO, the date that person ceased to be the CEO, and whether that person was replaced by another CEO after leaving. From these concrete data, BRD users can construct a variety of CEO turnover measures, adding whatever other information they may choose.

From the BRD variables, I constructed two measures of CEO turnover. The first measure is CEO turnover during bankruptcy (CEOTURNDURING). The second is CEO turnover during bankruptcy or within ninety days after case disposition (CEOTURNDURING90).

With respect to both measures, I exclude cases in which the CEO was not replaced. The reason for the exclusion is that I seek to measure the extent to which the Chapter 11 process may be improving companies’ managements by imposing CEO changes. Cases in which the CEO was not replaced are cases in which the CEO served until the company went out of business. In those cases, the Chapter 11 process did not improve companies’ managements. To treat those cases as successes would paradoxically have equated success with the closing of the debtor’s business.

Table 5 compares CEO turnover in the period covered by the LoPucki-Whitford study, that is, cases confirmed before March 15, 1988, with CEO turnover in the period after the period covered by the LoPucki-Whitford study. The table shows that 18 of 26 CEOs (69%) were replaced during bankruptcy in the LoPucki-Whitford study period, while only 247 of 609 CEOs (41%) were

60. E.g., Kenneth M. Ayotte & Edward R. Morrison, *Creditor Control and Conflict in Chapter 11*, 1 J. LEGAL ANALYSIS 511, 522 (2009) (reporting a 70% CEO turnover rate for the two years prior to bankruptcy); Stuart C. Gilson, *Management Turnover and Financial Distress*, 25 J. FIN. ECON. 241, 247 tbl.3 (1989) (reporting high turnover rates for top executives in companies that filed bankruptcy); Hotchkiss, *supra* note 52, at 16 (reporting a 41% CEO turnover rate for the two years prior to bankruptcy).

61. Gilson, *supra* note 60, at 247 tbl.3 (1989) (reporting high turnover rates for top executives in companies that filed bankruptcy); Hotchkiss, *supra* note 52, at 16 (reporting a 70% CEO turnover rate for the period from two years prior to filing to the effective date of the reorganization plan); LoPucki & Whitford, *Corporate Governance*, *supra* note 1, at 723–37 (reporting data and statistics of management turnover rates).

62. LoPucki & Whitford, *Corporate Governance*, *supra* note 1, at 737 (reporting “evidence that creditors ‘participated’ in causing the departure of eighteen of the forty tainted CEOs who left office”).

63. LoPucki & Whitford, *Patterns*, *supra* note 1, at 610 (footnote omitted).

replaced during bankruptcy after the LoPucki-Whitford study period. The difference in turnover rates is statistically significant ($p=.004$).

The proportions are similar using CEOTURNDURING90. By that measure, 21 of the 26 CEOs (81%) were replaced in cases during the LoPucki-Whitford study period, while only 372 of 608 (61%) were replaced in cases after the LoPucki-Whitford study period.

Table 5. CEO Turnover in Surviving Companies, by Period. Cases are divided on the basis of whether they were disposed of before the closing date for the LoPucki-Whitford study, March 15, 1988.

	During bankruptcy			During bankruptcy or within 90 days after bankruptcy		
	No turnover	Turnover	Total	No turnover	Turnover	Total
LoPucki-Whitford study period	8 (31%)	18 (69%)	26 (100%)	5 (19%)	21 (81%)	26 (100%)
Post-LoPucki-Whitford period	362 (59%)	247 (41%)	609 (100%)	236 (39%)	372 (61%)	608 (100%)
Total	370 (58%)	265 (42%)	635 (100%)	241 (38%)	393 (62%)	634 (100%)
Chi-square $p=.004$			Chi-square $p=.044$			

Study excludes cases in which the CEO was not replaced because the business failed.

Regression analysis of CEO turnover by disposition year shows that CEOTURNDURING the bankruptcy case has declined over time. The decline is statistically significant ($p=.003$). The corresponding analysis using CEOTURNDURING90 also shows a statistically significant decline ($p=.015$). Chapter 11 is today much more a safe harbor for the managers of large public companies than it was three decades ago.

VII. FILER DISTRESS LEVELS

This Article has shown a decline in Chapter 11 outcomes by three widely accepted measures of success. In attributing the decline to the Chapter 11 process, I implicitly assumed that Chapter 11 filing companies have not become more difficult to reorganize over the past three decades. Some commentators

argue that they have.⁶⁴ If those commentators are correct, changes in the companies rather than changes in the functioning of Chapter 11 may explain all or part of the decline in outcomes.

Operating profit (EBIT, expressed as a percentage of assets) is an accepted measure of a company's economic distress. To determine whether the economic distress levels of Chapter 11 filing companies changed from 1980 to 2014, I ran a regression with the year of filing as the dependent variable and the company's EBIT-to-assets ratio before bankruptcy as the independent variable. The sign on the coefficient was negative, indicating that the normalized EBIT of filing companies had declined. That suggests companies might be more difficult to reorganize. The decline was not, however, statistically significant ($p=.156$). Companies may be filing Chapter 11 cases in slightly worse economic distress in recent years, but the evidence is inconclusive.

Leverage is a company's ratio of liabilities to assets. Oddly, high leverage companies are more likely to survive bankruptcy than low leverage companies.⁶⁵ Consistent with that anomaly, BRD data show that the less equity a company has before bankruptcy the more equity it is likely to have after bankruptcy ($p<.001$). Together, those findings suggest the high-leverage filers are easier to reorganize than low-leverage filers.

To determine whether prefiling leverage changed over the period from 1980 to 2014, I ran a regression with filing year as the dependent variable and prebankruptcy leverage as the independent variable. I found that leverage before bankruptcy has increased over time. Recent filers have greater prebankruptcy leverage. The increase is statistically significant ($p=.007$). Filing companies are in increasing levels of financial distress.

That increase should have produced improvements in Chapter 11 outcomes instead of the declines observed. The absence of those improvements suggests that declining Chapter 11 performance, not more-difficult-to-reorganize filers, is causing the declines in Chapter 11 outcomes.

Further research is needed to determine whether changes in other characteristics of the filing companies or in economic conditions have made the

64. E.g., Douglas Baird & Robert K. Rasmussen, *Antibankruptcy*, 119 YALE L.J. 648, 678 (2010) (arguing that "making decisions once the company has filed for Chapter 11" has "become much more difficult" due to the increasing complexity of corporate finance); Miller & Waisman, *supra* note 10, at 152–55 (arguing that increasing distressed debt trading and increasing proportions of secured debt have made companies more difficult to reorganize).

65. Dahiya et al., *supra* note 44, at 271 ("Leverage shows up as positive and marginally significant in our regressions . . ."); Diane K. Denis & Kimberly J. Rodgers, *Chapter 11: Duration, Outcome, and Post-Reorganization Performance*, 42 J. FIN. & QUANTITATIVE ANALYSIS 101, 113 (2007) ("[F]irms that have greater liability ratios prior to filing Chapter 11 are more likely to reorganize than to liquidate or be acquired."); LoPucki & Doherty, *supra* note 4, at 1004–05 (noting that EquityBefore is negatively correlated with BankruptcySurvival both directly ($p<.001$) and in the best model ($p=.001$)); Michael Lemmon, Yung-Yu Ma & Elizabeth Tashjian, *Survival of the Fittest? Financial and Economic Distress and Restructuring Outcomes in Chapter 11* 43–44 (Sept. 8, 2009) (working paper), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1325562 (finding the relationship between leverage and survival statistically significant at the 1% level).

filing companies harder to reorganize. But based on the analyses presented in this Article, it appears that the decline in Chapter 11 outcomes results from a decline in Chapter 11's performance rather than a decline in the quality of the companies seeking reorganization.

VIII. CONCLUSION

Because we interviewed participants in the cases, read court documents and newspaper reports, and conducted financial analyses of the plans, Whitford and I gained holistic understandings of each of the forty-three cases we studied. That enabled us to classify cases based on substantial knowledge about each of them and to develop new measures of reorganization success.

The measures we developed and the data we collected provided the BRD's foundation. But the BRD staff could not examine individual cases with the intensity that Whitford and I applied to them. For our data collection to be feasible at filing rates up to ninety-seven cases a year, we had to adopt protocols that could be applied mechanically, without the exercise of judgment. We also consider the exercise of judgment in the application of our protocols to be undesirable because (1) judgment may differ from person to person, perhaps introducing differences into the data that do not exist in the cases; and (2) judgment adversely affects the reproducibility, and hence the credibility, of the data. As a result, some of the measures Whitford and I applied to the cases we studied were not carried over into the BRD or were carried over in different forms.

Where BRD protocols changed, we recollected the data for the earlier cases. That enabled me to report on the LoPucki-Whitford study cases in this Article even with respect to variables for which the BRD protocols differ from the LoPucki-Whitford protocols.

The comparison of the LoPucki-Whitford success protocols with the corresponding BRD protocols is encouraging. From the viewpoint of a data collector, the system for reorganizing large public companies has been remarkably stable over the past three decades. Probably the largest changes were the elimination of the NOL incentive for emergence and the disappearance of the custom of appointing equity committees and allowing distributions to underwater equity. The former distorted the survival measure for a brief period. The latter made complete shifts of control from shareholders to creditors almost universal and thus no longer worth measuring. But on the whole, the variables that Whitford and I began measuring over thirty-five years ago remain not only coherent, but also arguably still the best measures of system performance.

The principal finding of the instant study is that, since the period covered by the LoPucki-Whitford study, Chapter 11 has been generally less successful. The courts confirm plans in a smaller proportion of cases, fewer businesses survive, and CEO turnover is less likely to occur. By one measure—the proportion of the business that survives—Chapter 11 is more successful. That success is, however, subject to several qualifications and may be illusory. By three other measures—the leverage of the emerging companies, the change in EBIT of the emerging

company, and the rate at which companies refile—Chapter 11 has remained about the same.

Many other potential measures of success remain to be explored, and analyses for particular periods of time may differ from the entire-period analysis presented here, making it still too early to pronounce judgment on Chapter 11. By the measures explored in this Article, however, the Chapter 11 process seems to be in a long-term decline with respect to the reorganization of large public companies.

