

DELAWARE'S IRRELEVANCE

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INTRODUCTION

In the past few years the bankruptcy world—an admittedly specific place—has become obsessed with Delaware. According to its critics, most prominently Lynn LoPucki, Delaware has become so desperate for large cases that it has diluted its oversight of these cases, resulting in a dramatic increase in repeated chapter 11 filings.¹ This, Professor LoPucki argues, is evidence of corruption in the corporate bankruptcy system.² The defenders of Delaware acknowledge the higher refiling rate in Delaware but argue that surely Delaware must offer some advantage, given the sophisticated parties that continually decide file there.³ A variety of counter theories have thus been proposed, only to be dispatched quickly by Professor

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At various times from 1995 through 2002 I was an associate in the corporate reorganization department of a law firm that represented many debtors in the sample used in this article. All information contained in this article is based upon publicly available material. The opinions expressed in this article are my own, and must not be taken to reflect the opinions of my former employer or any former client.

The Stata files used for the regression and matching portions of this paper are available upon request from the author.

¹ See LYNN M. LOPUCKI, *COURTING FAILURE: HOW COMPETITION FOR BIG CASES IS CORRUPTING THE BANKRUPTCY COURTS* 113 (The University of Michigan Press 2005) [hereinafter *COURTING FAILURE*] (asserting Delaware reorganizations result in both more refilings and reorganization failures, and "[n]o matter how one measured failure, Delaware had more of it than other courts"); see also Lynn M. LoPucki & Joseph Doherty, *Why Are Delaware and New York Bankruptcy Reorganizations Failing?*, 55 VAND. L. REV. 1933, 1945 (2002) (finding refiling rate in Delaware three times that in other courts, and concluding "Delaware-reorganized firms were significantly more likely to refile . . . and significantly less likely to perform successfully under their plans of reorganization"); Lynn M. LoPucki & Sara D. Kalin, *The Failure of Public Company Bankruptcies in Delaware and New York: Evidence of a "Race to the Bottom,"* 54 VAND. L. REV. 231, 234, 248 (2001) (observing Delaware's emergence as "jurisdiction of choice for the bankruptcy reorganization of large, public companies," and increased likelihood companies reorganizing in Delaware to repeat chapter 11 filings than companies reorganizing in other courts).

² See *COURTING FAILURE*, *supra* note 1, at 18, 140–60; Charles J. Tabb, *Courting Controversy*, 54 BUFF. L. REV. 467, 469–71 (2006) (surveying criticism generated by LoPucki's book on forum shopping by large debtors and nature of bankruptcy reorganization practice and supervision); Todd Zywicki, *Is Forum Shopping Corrupting America's Bankruptcy Courts?*, 94 GEO. L.J. 1141, 1141 (2006) (reviewing LoPucki's book claiming current venue rules have spawned "competition for big cases" resulting in corruption of bankruptcy court system).

³ See, e.g., Kenneth Ayotte & David A. Skeel, Jr., *An Efficiency-Based Explanation for Current Corporate Reorganization Practice*, 73 U. CHI. L. REV. 425, 428, 436–62 (2006); Marcus Cole, *"Delaware is Not a State": Are We Witnessing Jurisdictional Competition in Bankruptcy?*, 55 VAND. L. REV. 1845, 1859–71 (2002); Robert K. Rasmussen & Randall S. Thomas, *Timing Matters: Promoting Forum Shopping by Insolvent Corporations*, 94 NW. U. L. REV. 1357, 1360, 1362–63, 1382–1406 (2000).

LoPucki's data.⁴

But all of this assumes that whether or not a case filed in Delaware is the proper criterion. Even would be defenders of Delaware seem to have accepted that Delaware cases refile at an abnormally high rate, and debates then proceed from that point.⁵ I remain unconvinced.⁶

The point is not to defend Delaware's role in modern chapter 11. Instead, my aim is rather to resist the certainty that has crept into the literature and discourage the overheated turn the debate has recently taken.⁷

Starting from this mindset and working with a sample of 337 chapter 11 cases from Lynn LoPucki's Bankruptcy Research Database, I present a new regression model that predicts whether a large chapter 11 case will reenter bankruptcy within five years. Among the factors in the model are variables that capture debtor characteristics like asset size, variables that capture underlying economic conditions at the start and conclusion of the debtor's chapter 11 case, and variables that indicate whether or not the debtor was engaged in one of several key industries.

None of the variables in the equation relate to whether or not the case filed in Delaware. In fact, the model's performance substantially declines upon the inclusion of Delaware. Interestingly, the model also performs much better than a simple model that tries to predict refiling solely based upon whether or not a case is filed in Delaware.

Moreover, the model shows that non-Delaware factors play important roles in determining whether or not a case will refile. For example, filing for chapter 11 while the stock market is up slightly increases the risks of refiling; leaving chapter 11 while the high yield debt market is up greatly increases the chance of refiling. Perhaps systemic "irrational exuberance" also influences chapter 11 reorganization? On the other hand, cases that leave chapter 11 when interest rates are low are much less likely to refile—perhaps they are better able to meet their post-petition obligations in a low interest rate environment?

Prepackaged cases are much more likely to refile as compared to traditional cases, and the effect obtains whether or not the case is filed outside the debtor's

⁴ See, e.g., Lynn M. LoPucki & Joseph W. Doherty, *Delaware Bankruptcy: Failure in the Ascendancy*, 73 U. CHI. L. REV. 1387 (2006).

⁵ See LoPucki & Kalin, *supra* note 1 at 265 (finding debtors who filed in Delaware had higher refiling rates and attributing confirmation of refiling rate to "Delaware bankruptcy court's laissez-faire approach to confirmation"); David A. Skeel, Jr., *What's So Bad About Delaware?*, 54 VAND. L. REV. 309, 312 (2001) (arguing firms experience real increase in value upon reincorporating in Delaware and high bankruptcy refiling rate is not indicative of its state's courts' failures); see also Thomas J. Salerno, *Suggested Reading: Courting Failure: How Competition for Big Cases Is Corrupting the Bankruptcy Courts*, AM. BANKR. INST. J., Feb. 2005, at 46, 69 ("The data contained in LoPucki's book is fine as far as it goes.").

⁶ This paper thus accepts the implicit challenge Professor LoPucki set forth at 73 U. CHI. L. REV. 1387, 1393 (2006).

⁷ Accord A. Mechele Dickerson, *Words That Wound: Defining, Discussing, and Defeating Bankruptcy "Corruption"*, 54 BUFF. L. REV. 365, 369 (2006) ("Empirical data certainly can prove that judges in New York and Delaware rarely appoint trustees in large cases While this data might suggest that the courts' reluctance to appoint trustees creates an appearance of impropriety or bias, the data do not prove that the judges in fact acted improperly or were biased.").

home jurisdiction. Indeed, filing outside of the debtor's "home" district, a factor present in every Delaware case in the sample, has little effect on the probability a case will refile.

My model does not conclusively prove Delaware's irrelevance to the issue of whether or not a case will enter bankruptcy again, but it challenges the faith that Delaware plays a key role in the problem of refiling and raises several additional important questions. Most notably, has the whole of bankruptcy scholarship been focused in the wrong place? At the very least, the entire question of Delaware's role in refiling needs further study, and more consideration must be given to the question of whether Delaware is the root cause of the problems ascribed to it. I thus conclude this paper where I began: open to the possibility that Delaware is important but doubtful that this has been proven.

Throughout I also resist the temptation to engage the existing literature in this area. In particular, I do not decide if Delaware prepackaged cases are somehow different from traditional Delaware chapter 11 cases.⁸ And I do not consider whether Delaware truly had an abnormal refiling rate from 1991 to 1996, a central claim of *Courting Failure*.⁹ I do question whether these years are actually the relevant years, but ultimately these questions are of secondary importance to the central question of whether Delaware is even relevant to this analysis. Since the importance of Delaware remains unproven, these other matters remain but interesting—and potentially random—effects in the data.¹⁰

By the late 1990s it became apparent to all that Delaware was attracting more than its share of large corporate bankruptcy cases. Given this trend, it was natural to wonder if the Delaware cases were somehow different from cases filed elsewhere.

At roughly the same time, several well-known companies—airlines, retail chains, steel manufacturers—entered chapter 11 for the second or even third time since 1980. It was also natural to wonder if these two trends were related: did Delaware play some role in all of these refilings?

But by starting from this point, bankruptcy scholars neglected to consider if a debtor's return to chapter 11 could be better explained outside of a Delaware/Non-Delaware framework. This paper's simple goal is to urge us to start anew.

⁸ See Douglas G. Baird & Robert K. Rasmussen, *Beyond Recidivism*, 54 BUFF. L. REV. 343, 349 (2006) (emphasizing need for differentiation between prepacks and other types of Delaware cases in bankruptcy analysis); see also Theodore Eisenberg & Lynn M. Polucki, *Shopping for Judges: An Empirical Analysis of Venue Choice in Large Chapter 11 Reorganizations*, 84 CORNELL L. REV. 967, 976, 979–80 (1999) (linking prepackaged bankruptcies to reduced case-processing times in Delaware courts); LoPucki & Kalin, *supra* note 1, at 251 (highlighting advantages to prepackaged bankruptcies including relatively quick confirmation and relatively lower costs).

⁹ See *COURTING FAILURE*, *supra* note 1, at 120.

¹⁰ See Barry E. Adler & Henry N. Butler, *On the "Delawarization of Bankruptcy" Debate*, 52 EMORY L.J. 1309, 1316 (2003).

I. DELAWARE AND CHAPTER 11

Large corporate debtors have sought out select jurisdictions for their reorganizations since the first decades of the twentieth century.¹¹ Under the current version of the Bankruptcy Code,¹² the Southern District of New York, chiefly the Manhattan division of that district, first emerged as the favored jurisdiction for large chapter 11 cases.¹³ But by the early 1990s Delaware was rapidly taking over the lead spot.¹⁴

The shift to Delaware was first noticed by Professor LoPucki in an article he co-wrote in 1999.¹⁵ And it seems quite clear that Delaware is receiving a disproportionate number of large chapter 11 cases, as it is the primary beneficiary of cases filing outside of the debtor's home state.¹⁶ For example, the data I use in this paper show that none of the cases filed in Delaware had any connection to the state—save for incorporation. Moreover, it seems apparent that cases are coming to Delaware primarily because the parties, most often the debtor's lead counsel, believe that Delaware is somehow "better" than other jurisdictions.¹⁷

¹¹ See Stephen J. Lubben, *Railroad Receiverships and Modern Bankruptcy Theory*, 89 CORNELL L. REV. 1420, 1442, n.109 (2004) (stating controversy about venue shopping is still acute today); Warner Fuller, *The Background and Techniques of Equity and Bankruptcy Railroad Reorganizations—A Survey*, 7 LAW & CONTEMP. PROBS. 377, 379 (1940) (noting bondholders historically sought petitioning creditors who would not destroy diversity jurisdiction because they preferred federal court); Thomas Clifford Billig, *Corporate Reorganization: Equity vs. Bankruptcy*, 17 MINN. L. REV. 237, 253–54 (1933) ("The United States district court for the southern district of New York is the popular eastern forum for equity receivership cases.").

¹² Bankruptcy Reform Act of 1978 (the "Bankruptcy Code"), Pub. L. No. 95-598, 92 Stat. 2549.

¹³ Harvey R. Miller, *Chapter 11 Reorganization Cases and the Delaware Myth*, 55 VAND. L. REV. 1987, 1991 (2002).

¹⁴ See LoPucki & Doherty, *supra* note 6, at 1387–88 (detailing steps of Delaware's acquisition of "near monopoly on large public company bankruptcies" in 1990s); Rasmussen & Thomas, *supra* note 3, at 1372–73 (identifying Delaware court's proficient handling of Continental Airlines chapter 11 case as reason for Delaware's usurpation of New York's status as preferred bankruptcy venue); David A. Skeel, Jr., *Lockups and Delaware Venue in Corporate Law and Bankruptcy*, 68 U. CIN. L. REV. 1243, 1274 (2000) (describing origins of Delaware's prominence as site for major chapter 11 cases).

¹⁵ See Eisenberg & LoPucki, *supra* note 8, at 982–83 (offering analysis of increased forum shopping and rise in Delaware filings as concomitant phenomena); see also Adler & Butler, *supra* note 10, at 1309–10 (commenting on attention brought to "migration" of large scale bankruptcies from New York to Delaware); cf. 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, 29 (noting implications of forum shopping and earlier trend of filing in New York City).

¹⁶ See Eisenberg & LoPucki, *supra* note 8, at 992 ("Since 1990, when debtors began filing prepackaged cases in significant numbers, Delaware has received a disproportionate share of these cases"); see also LoPucki & Kalin, *supra* note 1 at 234 (discussing Delaware's replacement of New York in 1990s as "jurisdiction of choice for the bankruptcy reorganization of large, public companies"). But see Adler & Butler, *supra* note 10, at 1316 (describing study showing Delaware corporations were less likely to file a bankruptcy petition in Delaware).

¹⁷ See Zywicki, *supra* note 2, at 1174 ("[T]here is a relatively small group of elite law firms, headed by Weil Gotshal and Skadden Arps, that have the resources and experience to handle large, complicated Chapter 11 cases with a national (or even international) reach. As a result, these firms can exert a tremendous amount of leverage over the choice of venue by a troubled firm, especially in the bewildering and frantic days that precede a Chapter 11 filing.").

Exactly why Delaware is better, and whether the putative benefits of Delaware run to the debtor or simply its management and professionals, is the key dispute of this debate. Lynn LoPucki has argued that "competing bankruptcy courts offer high fees to bribe the lawyers to bring them cases."¹⁸ This is the phenomena that he describes as "corruption," an effect that he argues has spread from Delaware to other districts whose judges also wish to preside over large corporate bankruptcy cases.¹⁹

Other academics have argued that Delaware offers special advantages, such as speed in reorganization.²⁰ Or it may be that large law firm partners are a risk adverse group that has no desire to try something new when Delaware has seemingly worked so well in the past, even if their beliefs about Delaware are ultimately mistaken.

One sure result of this literature has been that *Courting Failure*, with its dramatic and, one suspects, occasionally embolism-inducing conclusion,²¹ has effectively framed the terms of the debate: has the Delaware bankruptcy court, and those who practice in it, corrupted the chapter 11 system?²² It is this understanding of the issue that this paper pushes against, starting in the next section.

II. REEXAMINING THE DATA

This study began with 687 chapter 11 cases identified using Lynn LoPucki's Bankruptcy Research Database.²³ All of the cases in the sample are very large

¹⁸ *COURTING FAILURE*, *supra* note 1, at 141.

¹⁹ *Id.* at 139–40. As first noted by Melissa B. Jacoby, the details of the "corruption spread" argument are somewhat problematic, especially in terms of time. *See* Melissa B. Jacoby, *Fast, Cheap, and Creditor-Controlled: Is Corporate Reorganization Failing?*, 54 *BUFF. L. REV.* 401, 414–21 (2006). In particular, LoPucki argues that the influence of Delaware can be seen with the re-filing of cases that first emerged from chapter 11 in 1997. Given that most cases emerging in 1997 had been filed in 1995, it would seem to require a rather rapid spread of Delaware's influence to corrupt these cases. Moreover, it seems odd that cases filed the same year would not have also been susceptible to Delaware's influence, thus pushing the start date earlier than most will find plausible. *See* *COURTING FAILURE*, *supra* note 1, at 119–22.

²⁰ *See* Ayotte & Skeel, *supra* note 3, at 461 (confirming "general perception" that "Delaware bankruptcy judges handled cases appreciably faster than judges in other districts"); Jacoby, *supra* note 19, at 407 (highlighting how Delaware "processed cases with greater speed and efficiency than Other Courts" and was perceived to have "superior abilities" as driving its popularity); *see also* Skeel, *supra* note 5, at 309–10 (citing "bankruptcy's venue provision [that] permits debtors to file for bankruptcy in their state of incorporation" and the fact that "so many large firms are incorporated in Delaware" as allowing many large firms to file in Delaware).

²¹ *See* Tabb, *supra* note 2 at 469–71 (collecting practitioner and judicial comments, most of them scathing, about Lynn LoPucki and his book); *Critics Punch Holes in Foundation of Court Corruption Theories*, 44 *BANKR. COURT DECISIONS NEWS & COMMENT* 9, Mar. 22, 2005 (quoting Thomas J. Salerno as stating, "Lynn LoPucki is a dangerous man . . . Without the benefit or filter of experience, he makes rash and irresponsible conclusions about sitting and retired bankruptcy judges, based on faulty data and speculation disguised as academic research"); *see also* Dickerson, *supra* note 7, at 366 (citing LoPucki's use of "corruption" as primary source of controversy behind *Courting Failure*).

²² *See* *COURTING FAILURE*, *supra* note 1, at 113 (discussing corrupt bankruptcy court in Delaware); LoPucki & Kalin, *supra* note 1, at 255–266 (explaining high re-filing rate for companies from Delaware).

²³ *See* Lynn M. LoPucki, Bankruptcy Research Database (BRD), Web BRD: A Window on the World of Big-Case Bankruptcy, <http://lopucki.law.ucla.edu> (last visited January 19, 2008) (providing search engine

corporations, each with assets greater than \$100 million (measured in 1980 dollars),²⁴ that were required to file reports with the SEC. The LoPucki database is also the source of basic financial information for the debtors in the sample.

The initial sample included all chapter 11 cases filed between 1980 and 2006, save for those cases that were still pending when I gathered the sample on February 18, 2007. Because this study examines the probability of refiling within five years of the initial bankruptcy case, I removed all cases that left chapter 11 after 2002 from the sample.²⁵ In addition, because this study addresses refiling rates during the period of Delaware's ascendancy, I remove all cases from the sample that predate Delaware's apparent ascension in 1992. Inclusion of cases from the period between 1980 and 1991 would seem to hold too great a risk of prejudicing the sample, inasmuch as these debtors may have been subjected to economic or other factors that, by definition, could not have influenced firms filing in Delaware.

Following these subtractions, the total sample is reduced to 337 chapter 11 cases. I then standardized each debtor's asset figures into 2006 dollars using the average annual Consumer Price Index. This facilitates inter-year comparisons of the data.

The cases that refile within five years of leaving chapter 11 are well dispersed throughout the years of my sample. The median refiling case in the sample initially sought chapter 11 protection in 1997. The median case that did not refile is somewhat newer, filing in 1999.

The sample includes cases from around the country. But since most cities, other than Wilmington or New York, rarely see more than one or two large chapter 11 cases per decade, only twelve cities in the sample have refiling rates greater than zero. The following table shows these cities and makes plain the difficulties in making district by district comparisons with these data. Even New York City cases represent less than 30% of the cases that filed in Wilmington during this period.

that contributed to study of 687 chapter 11 cases; cf. Stephen J. Lubben, *Choosing Corporate Bankruptcy Counsel*, 14 AM. BANKR. INST. L. REV. 391, 395 (2006) (providing example of empirical study conducted by using Bankruptcy Research Database).

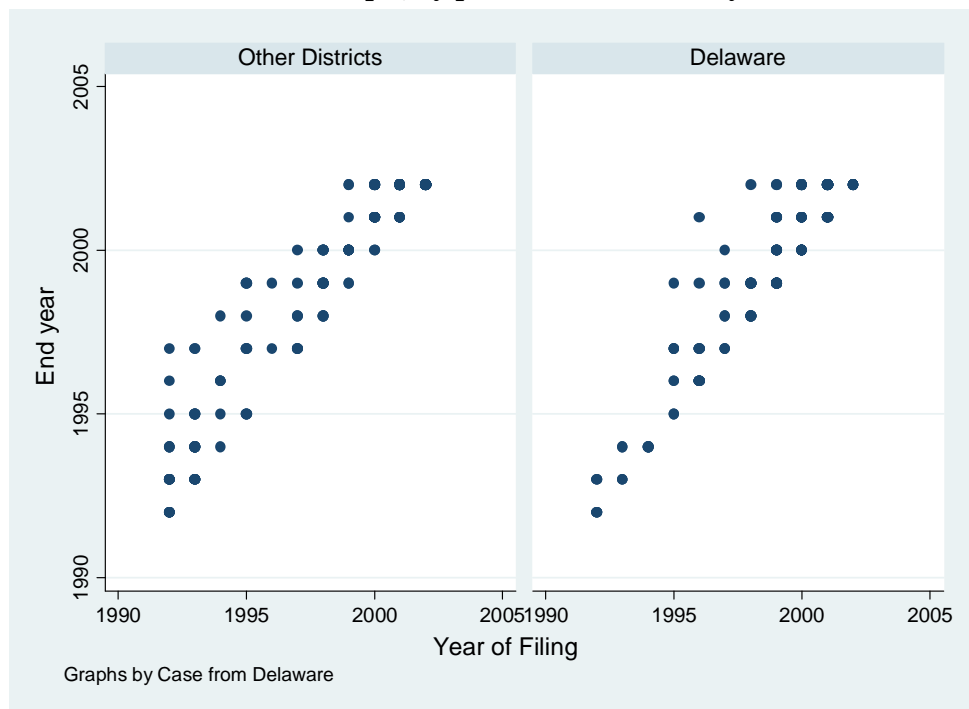
²⁴ Approximately \$246 million in 2006 dollars. See *infra* p. 274; <ftp://ftp.bls.gov/pub/special.requests/cpi/cpiiai.txt> (summarizing Consumer Price index data for all urban consumers from 1913 to 2007); see also <http://www.measuringworth.com/uscompare/> (allowing user to calculate relative value of U.S. dollars in different years using CPI or other indices).

²⁵ Removing the newer cases from the sample also partially guards against the possibility that Delaware practices have indeed spread to other districts and that these practices have an effect on refiling rates.

Refiling Rates by City, 1992-2002
(Cities without Refiling Cases Omitted)

	No Refiling	Refiling	Total Cases
Salt Lake City		100.0%	1
Spartanburg		100.0%	1
Kansas City, MO	50.0%	50.0%	2
St. Louis	50.0%	50.0%	2
Tampa	50.0%	50.0%	2
Milwaukee	66.7%	33.3%	3
Dallas	71.4%	28.6%	8
Newark	80.0%	20.0%	5
<i>Wilmington</i>	<i>81.7%</i>	<i>18.3%</i>	<i>155</i>
Detroit	83.3%	16.7%	6
Los Angeles	85.7%	14.3%	7
New York	86.0%	14.0%	43
All Cities	86.5%	13.5%	337

The problem with reporting refiling rates in this manner is that there are differences between the cases that file in Delaware and those that file elsewhere. For example, 19% of the cases that file in Delaware are prepackaged, as compared to 9% of the cases that file elsewhere. Delaware cases in the sample entered and exited chapter 11 in years when the NASDAQ and S&P 500 indexes were significantly higher. Moreover, other factors that exhibit less dramatic differences between jurisdictions, such as asset size, may nonetheless influence the propensity to refile.

Cases in Sample, by petition and terminal years

Thus, any comparison of these cases must account for the differences among cases. But this presupposes that the key distinction between cases that refile is Delaware, and starting from this point can lead to the obsessive focus on Delaware and its practices that has been the norm in the bankruptcy literature. Accordingly, I start by simply trying to identify the factors that predict a debtor's propensity to refile, and then consider if location of the debtor's first bankruptcy filing improves this prediction.

Although there are a variety of approaches that one could adopt with this data, I use a logistic (or logit) regression technique. In short, logistic regression is a form of regression that is used when the dependent variable is binary. A binary dependent variable violates the assumption in normal linear regression that the dependent variable is normally distributed, since the dependent variable can only take two values. In this paper I use a simple yes/no variable that captures whether the debtor reentered chapter 11 within five years of leaving chapter 11 as my dependent variable.²⁶

²⁶ Following the distribution of the initial draft of the paper, Professor LoPucki alerted me that his refiling data for cases ending in 2001 and 2002 might be incomplete, inasmuch as it is not finalized until five complete years have passed. He provided me with updated information for the cases ended in 2001, and I used data from www.bankruptcydata.com to update the cases that ended in 2002. Nevertheless, there is some risk that using this former source of data undercounts refilings, as refiling are defined under different data

The model I use in this paper consists of twenty-one independent variables on the right side of the equation: five variables capture characteristics of the debtor and its bankruptcy case, six variables indicate whether or not the debtor's primary business operations relate to industries that frequently appear in the sample, and the remaining variables capture underlying economic conditions at the start and conclusion of the debtor's chapter 11 case.

The basic debtor characteristics that I capture are the assets of debtor, standardized in 2006 dollars, the total number of debtor employees, whether the case involved serious allegations of fraud, whether the case was filed outside of the debtor's home district, and whether the case was "prepackaged."²⁷ The economy is measured by the closing values of the S&P 500 Index, the NASDAQ Composite Index, the closing value of a high yield bond fund,²⁸ the closing yield of the 90 day Treasury Bill, and the 10 year government bond rate in both the year of filing and the year the debtor leaves chapter 11.²⁹

The resulting model³⁰ improves prediction of refiling by 8.33% as compared to simple guessing, which would correctly classify about 86 out of 100 cases, given the nationwide five year refiling rate of just under 14%. A model that includes only the Delaware variable does not increase our ability to predict refiling at all. Adding

protocols, although any errors would be small, perhaps one or two missed cases.

²⁷ A prepackaged chapter 11 case

[i]nvolves 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 nonregistered prepack.

Stephen J. Lubben, *The Direct Costs of Corporate Reorganization: An Empirical Examination of Professional Fees in Large Chapter 11 Cases*, 74 AM. BANKR. L.J. 509, 516 (2000) (footnote omitted). See Cole, *supra* note 3, at 1851 (stating "emergence of Delaware as the preferred venue for bankruptcy has been accompanied by a parallel development: the increase in the use of 'prepackaged' Chapter 11 cases"); Richard E. Mendales, *We Can Work It Out: The Interaction of Bankruptcy and Securities Regulation in the Workout Context*, 46 RUTGERS L. REV. 1211, 1287 (1994) (noting "prepackaged Chapter 11 cases, the divergence between the securities laws and bankruptcy disclosure rules becomes particularly troubling").

²⁸ The Fidelity High Income Fund (pricing based on the last trading day of each year).

²⁹ There is undoubtedly a good deal of correlation among some of the independent variables, particularly the economic variables. Nevertheless, the model does not show any of the typical signs associated with multicollinearity problems (e.g., extreme standard errors). See *infra* Appendix A.

³⁰ The traditional regression table can be found in Appendix A. See Handan Ankarali Camdeviren et al., *Comparison of Logistic Regression Model and Classic Tree: An Application to Postpartum Depression Data*, 32 EXPERT SYS. WITH APPLICATIONS 987, 987-88 (2007) (describing logistic regression model as estimating class membership of categorical dependent variable without assumption on independent variables, commonly used to determine risk factors in medical research and diagnosis); see also K.P.M. Gysemans et al., *Exploring the Performance of Logistic Regression Model Types on Growth/No Growth Data of Listeria Monocytogenes*, 114 INT'L J. OF FOOD MICROBIOLOGY 316, 317 (2007) (defining logistic regression as widely used statistical model that investigates relationship between variables with outcomes reflecting categories of information, rather than interval scale, and explanatory variables); J. Munoz-Garcia et al., *Cressie and Read Power-Divergences As Influence Measures for Logistic Regression Models*, 50 COMPUTATION STATISTICS & DATA ANALYSIS 3199, 3199 (2006) ("Logistic regression is a very useful tool in the study of a binary data set obtained under experimental conditions as well as in observational studies.").

Delaware to my model improves predictions by 2.08%—that is, the model's improvement over guessing drops from 8.33% to 2.08%.

The effect of Delaware's inclusion seems to be robust across a variety of specifications of the model: in each case, adding Delaware to the model either reduces or has no effect on the model's predictive power. For example, the two most correlated variables in the model are the S&P 500 and NASDAQ variables, and a cautious reader might wonder about the potential effects of colinearity.³¹ If we removed the S&P variable from the model, the model increases our ability to predict refiling by 4.2%. Alternatively, removing the NASDAQ variable results in a model that improves prediction by 2.1%. In both instances the model's predictive power does not change upon the inclusion of Delaware. A simplified model that attempts to predict refiling without the aid any of the industry variables or the economic variables shows analogous results: the model does little to aid in prediction, but adding Delaware does not change that fact.

Now one could well expect that Professor LoPucki will respond that my model is interesting, but irrelevant, as he is only focused on companies that reorganized in Delaware during the period he describes as Delaware's ascendancy, that is 1991 to 1996, and that from 1997 to 2002 the Delaware "taint" had spread to other districts.

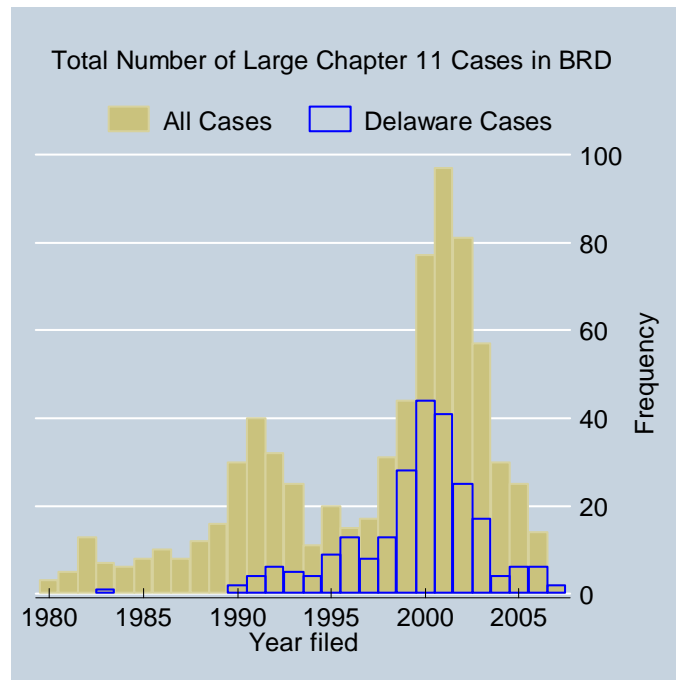
This forces us to consider the initial premise: In particular, why is it that a refiling rate calculated for a five or six year period (out of the more than 25 years of the Bankruptcy Code) has come to dominate the more general discussion of corporate reorganization and the legitimacy of forum shopping? Moreover, are these years actually the period of "Delaware's ascendancy"?

First, note that I have already, albeit implicitly, rejected the use of 1991 as the start of the relevant period. Professor LoPucki convincingly argues that Continental Airlines' 1990 filing in Delaware was the first case to illuminate the possibility of Delaware venue.³² But less convincing is the claim that a case filed in December 1990 was already influencing the decision about where to file mere months latter.³³ Indeed, one might expect that the key players—the "case placers" in LoPucki's terminology—would have waited to see how Continental fared in its chapter 11 case, which did not conclude until April of 1993. At the very least, we need to acknowledge that the bankruptcy community could not and did not instantaneously absorb news of Continental's filing. For that reason, I adopt 1992 as the relevant starting year for the period of Delaware's "dominance."

³¹ See *supra* note 30.

³² See LoPucki & Doherty, *supra* note 1, at 1935 ("In 1990, two large, public companies—Continental Airlines and United Merchants and Manufacturers—filed in Delaware.").

³³ See Adler & Butler, *supra* note 10, at 1310 (proposing "[i]t is not certain, however, that the Delawarization of bankruptcy is even a significant event, much less a sustainable one"); see also Ayotte & Skeel, *supra* note 3 at 428 (stating "Professor LoPucki's condemnation of corporate debtors' tendency to file in Delaware and New York rather than in other locations ignores several significant checks on the ability of a debtor's managers and attorneys to pick a venue that favors their interests over those of other constituencies"); cf. LoPucki & Kalin, *supra* note 1, at 248; (arguing "in 1990, companies began filing in Delaware and by 1993 Delaware had replaced New York as the forum of choice for large bankruptcy reorganization cases").



A quick glance at the following chart makes clear that even 1992 might be too early, inasmuch as Delaware did not begin to process a substantial number of chapter 11 cases until the middle of the decade.³⁴ In 1992 about 22% of the big cases filed in Delaware, in 1993 the number dropped to about 20% of the big cases, only to truly begin to climb in 1993, when more than 36% of the big chapter 11 cases filed in Wilmington—the year Continental's case was coming to an end. The chart also makes plain that the years of Delaware's supposed dominance were lean years overall for the corporate bankruptcy bar—with only 11 large cases filed in 1994 and less than 30 such cases in each year between 1993 and 1998. It is not terribly remarkable that a single jurisdiction would capture a percentage of such a small pool of cases.

The choice of 1996 as the endpoint for the period of dominance is equally puzzling. Yes, the District Court did withdraw the reference in early 1997, but there is no sign that this had more than a temporary effect. Delaware continued to receive large numbers of chapter 11 cases: 50% of the large cases filed in 1997, almost 45% in 1998, and more than 65% of the big cases filed in 1999. What is more, no district received more than a token number of large chapter 11 cases during any of these years. Indeed, it is arguable that Delaware's dominance did not end, if at all, until 2000 or 2001, when the Northern District of Illinois suddenly

³⁴ This chart uses all of the cases in the LoPucki BRD, from all years.

received 3 and then 6 large chapter 11 cases, and the Southern District of New York also began to host substantial numbers of large cases again.³⁵

In short, the actual significance of finding a particular refiling rate within the 1991 to 1996 period is debatable. If we do not agree that these years are particularly relevant, the refiling rate during this five year slice is no more important than the refiling rate in any other five year period.

The obvious way to discover if there is indeed a "Delaware effect" is through the construction of a control group: compare Delaware cases with otherwise identical cases filed outside of Delaware. LoPucki in part does this by considering whether the cases in and out of Delaware are different when measured by certain key characteristics. Finding no difference, he concludes that the difference in refiling rates can be attributed to Delaware.

However, given the uncertainty about whether the years 1991 through 1996 are relevant, it is not clear whether LoPucki has captured a Delaware effect or a historical effect. The data I have presented in this paper suggests that the heightened refiling rate he finds in Delaware during 1991 to 1996 is a historical anomaly, driven by economic conditions and the small number of cases filed during those years, but LoPucki can easily respond that my data has been contaminated by the inclusion of cases that occurred after the spread of Delaware-style chapter 11 practices. In short, the claim that particular years are the only years relevant to the refiling question, and the limited number of cases filed during those years, makes examination of LoPucki's theory exceedingly difficult.

To get at this issue, without bogging the discussion down with the question of whether and when Delaware was "ascendant," I approach the refiling rate question by using a propensity score matching technique.³⁶ A matching approach mimics random assignment to the relevant category (in this case, Delaware or not-

³⁵ See *ABC-NACO, Inc. v. Klos Trucking, Inc.*, No. 04 C 0033, 2004 U.S. Dist. LEXIS 5423, at *2 (N.D. Ill. March 30, 2004) ("On October 18, 2001, ABC-NACO filed petitions for relief under Chapter 11 of the United States Bankruptcy Code."); *In re Anicom Inc. Securities Litigation*, No. 00 C 4391, 2001 U.S. Dist. LEXIS 6607, at *9 (N.D. Ill. May 15, 2001) ("Anicom filed for bankruptcy on January 5, 2001."); *In re Comdisco, Inc.*, 270 B.R. 909, 910 (Bankr. N.D. Ill. 2001) (involving chapter 11 debtor in determining whether there had been breach of contract where there was rejection of contract). After never receiving 10 large cases for years, and rarely even more than five, New York processed 15 cases in 2001 and 22 in 2002. See *In re Adelphia Commc'ns Corp.*, 285 B.R. 848, 849 (Bankr. S.D.N.Y. 2002) (involving "adversary proceeding under the umbrella of the jointly administered chapter 11 cases of Adelphia Communications Corporation and its subsidiaries"); *In re Metromedia Fiber Network, Inc.*, 281 B.R. 524, 526 (Bankr. S.D.N.Y. 2002) (denying motion to dismiss in case involving Metromedia Fiber Network, which "filed voluntary petitions under Chapter 11 on May 20, 2002"); *In re Teligent, Inc.*, 268 B.R. 723, 728 (Bankr. S.D.N.Y. 2001) (dealing with Teligent which, along with its affiliates, filed "chapter 11 cases on May 21, 2001").

³⁶ For an extensive and very readable discussion of the matching techniques described herein, see Lee Epstein et al., *The Supreme Court During Crisis: How War Affects Only Non-War Cases*, 80 N.Y.U. L. REV. 1, 65-69 (2005). See E. MICHAEL FOSTER, PROPENSITY SCORE MATCHING: AN ILLUSTRATIVE ANALYSIS OF DOSE RESPONSE, 41 MED. CARE 1183, 1184-85 (2003), available at <http://www.unc.edu/~emfoster/papers/doser2.pdf>; Xianghong Li & Xinlei Zhao, PROPENSITY SCORE MATCHING AND ABNORMAL PERFORMANCE AFTER SEASONED EQUITY OFFERINGS, Working Paper at 7-11, (2005), available at http://dept.econ.yorku.ca/~xhli/HomePage_files/SEO.pdf.

Delaware) through the construction of a control group after the fact.³⁷ A propensity score matching approach collapses all relevant factors into a single index and matches cases based on that index. In this way, we can attempt to create two groups of cases that are roughly identical in all respects save for whether they were filed in Delaware. If the difference in refiling rates persists after the matching, it would tend to confirm LoPucki's hypothesis.

To construct the propensity score, I start with all of the independent variables in my model. Then, to account for the importance assigned to petition dates, I also balance the cases by petition year. I adopt a conservative approach to the matching, matching cases without replaces (i.e., each Delaware case is only matched with one non-Delaware case).³⁸ The refiling rates for the two groups after the matching is set forth in the next table.

Comparisons of probability of refiling within 5 years (matched cases)

<i>Case from</i>		<i>Probability of refiling</i>	<i>Std. Error</i>
<i>Delaware</i>	<i>N</i>		
No	116	8.62%	2.62%
Yes	115	15.65%	3.40%

There is no statistically significant difference in refiling rates.³⁹ To be sure, the numbers appear to indicate a higher refiling rate in Delaware, but the lack of statistical significance shows that we can not be sure. There simply is not enough data to draw any firm conclusions one way or another about the relationship between Delaware and refiling rates. And ultimately that is my point—the certainty about a Delaware effect has, at best, been overstated.

CONCLUSION

What then is the implication of this analysis? After this paper, the need for further research and greater recognition of the uncertainty inherent in such research

³⁷ See Stephen J. Lubben, *Business Liquidation*, 81 AM. BANKR. L.J. 65, 75 (2007) (using this same technique to balance sample of chapter 7 and 11 cases); see also Sarah H. Ramsey & Robert F. Kelly, *Social Science Knowledge in Family Law Cases: Judicial Gate—Keeping in the Daubert Era*, 59 U. MIAMI L. REV. 1, 57–58 (2004) (discussing matched-group design); Sarah H. Ramsey & Robert F. Kelly, *Using Social Science Research in Family Law Analysis and Formation: Problems and Prospects*, 3 S. CAL. INTERDISC. L.J. 631, 650–51 (1994) (pointing to matched group-design as alternative "to pure experimental designs that do not involve random assignment, but retain as many internal validity strengths of randomized designs as possible").

³⁸ Specifically, I use nearest neighbor matching, without replacement, with common support in the tails. For an explanation of nearest neighbor matching, see Gary King, *Nearest Neighbor Matching*, http://gking.harvard.edu/matchit/docs/Nearest_Neighbor_Match.html (last visited on January 22, 2008).

³⁹ $t = -1.638$.

is evident.⁴⁰ More fundamentally, it is my hope that the data presenting in this paper will change the tone of the Delaware debate.

Given the uncertainty over whether there really is a Delaware effect, it is unhelpful to claim that LoPucki's critics are defending the "indefensible."⁴¹ Even if my model ultimately is supplanted by a better tool for predicting refiling, and undoubtedly such a model can and will be devised, the fundamental point is the doubt that the model raises about Delaware's centrality to the analysis. Until it has been shown that that Delaware is the distinguishing factor among cases that refile, it is both unfair and imprudent to assume a Delaware effect and put the burden on those who argue otherwise. In short, there is nothing "indefensible" about the notion that Delaware is not the issue.

⁴⁰ See Lee Epstein, Andrew D. Martin, & Matthew M. Schneider, *On the Effective Communication of the Results of Empirical Studies, Part I*, 59 VAND. L. REV. 1811, 1837-38 (2006).

⁴¹ LoPucki & Doherty, *supra* note 6, at 1387. Of course, it is equally unhelpful to essentially call Professor LoPucki names. See Tabb, *supra* note 2, at 467-72; Dickerson, *supra* note 7, at 365 (discussing critics attacking LoPucki's integrity); cf. Lynn M. LoPucki, *Where Do You Get Off? A Reply To Courting Failure's Critics*, 54 BUFF. L. REV. 511, 518 (2006) (replying to Tabb's article). Moreover, I doubt it is helpful to engage in extensive linguistic hand wringing over LoPucki's use of the word "corruption."

APPENDIX A

(regression table for model used in article)

		Number of				
		obs	=	333		
		Wald				
		chi2(21)	=	38.99		
		Prob > chi2	=	0.0098		
		Pseudo R2	=	0.1246		
Log pseudolikelihood:	-120.23					
	Coef.	Robust Std. Err.	z	P>z	[95% Conf.	Interval]
Forum shopping	-0.06	0.35	-0.17	0.87	-0.76	0.63
Prepackaged case	0.80	0.45	1.78	0.08	-0.08	1.68
Fraud in case (y/n)	0.94	0.78	1.21	0.23	-0.59	2.47
Log of assets in 2006 dollars	0.04	0.22	0.18	0.86	-0.39	0.47
Log of Employees	0.18	0.14	1.27	0.21	-0.10	0.46
SP500 at start of case	0.00	0.00	-1.94	0.05	-0.01	0.00
SP500 at end of case	0.00	0.00	1.35	0.18	0.00	0.01
10 year bond rate at start of case	-0.62	0.36	-1.71	0.09	-1.34	0.09
10 year bond rate at end of case	0.14	0.35	0.39	0.70	-0.56	0.83
NASDAQ at start of case	0.00	0.00	2.19	0.03	0.00	0.00
NASDAQ at end of case	0.00	0.00	-1.63	0.10	0.00	0.00
Communications	-0.23	0.74	-0.30	0.76	-1.68	1.23
Industrial and Commercial Machinery and Computer Equipment	0.42	0.57	0.73	0.47	-0.70	1.53
Business Services	-0.52	0.92	-0.56	0.57	-2.32	1.29
Food Stores	0.21	0.84	0.25	0.80	-1.44	1.86
Textile Mill Products	-0.01	0.79	-0.01	0.99	-1.55	1.54
General Merchandise Stores	0.49	0.80	0.60	0.55	-1.09	2.06
High yield fund value at start	-0.46	0.28	-1.61	0.11	-1.01	0.10
High yield fund value at end	0.52	0.26	2.02	0.04	0.02	1.02
T-Bill bond rate at start of case	0.29	0.20	1.46	0.14	-0.10	0.67
T-Bill rate at start of case	0.10	0.19	0.51	0.61	-0.27	0.46
Constant	-2.77	4.40	-0.63	0.53	-11.39	5.85

Dependent variable is refiling within five years of exit from chapter 11 (refiling =1).