Four Facts about Corporate Bankruptcy in the U.S.

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PRELIMINARY AND INCOMPLETE

Abstract

The U.S. Bankruptcy Code has been in place for four decades. In this time, the bankruptcy process for large firms has evolved in ways that were intended and unintended. Chapter 7 has become obsolete, with 99% of large corporate bankruptcies playing out in Chapter 11. Even firms wishing to liquidate usually choose to sell their assets in Chapter 11. Bankruptcy outcomes are mostly consistent with objectives: for example, firms that intend to reorganize but ultimately liquidate only account for 6% of the sample. Using a combination of heuristic and machine learning techniques, I characterize the events that take place prior to bankruptcy. I show that sophisticated, pre-arranged bankruptcy plans have been steadily rising. Of those firms that experience unanticipated liquidations, the characteristics of failed reorganizations differ from those of failed acquisitions. These findings have profound implications for ex-ante bankruptcy efficiency, the export of U.S. bankruptcy policy to other nations, and the direction of bankruptcy research.

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1 Introduction

On October 1st, 1979, the major provisions of the Bankruptcy Reform Act of 1978 took effect and Chapter 11 came into existence. Although a number of laws and reforms have since made adjustments to the Chapter 11 process, the broad outlines of corporate reorganization in the U.S. have remained largely constant for the past four decades.[1] Early research on Chapter 11 focused on managerial and secured creditor biases, inefficiencies along the reorganization or liquidation axis, and deviations from the absolute priority rule (APR). Starting in the late 1980s and picking up speed in the 1990s, however, two trends in bankruptcy emerged: the rise of asset sales and the rise of the pre-packaged plan, in which the terms of a bankruptcy are negotiated prior to filing. Baird and Rasmussen (2002) remark: "Even when large firms use Chapter 11 as something other than a convenient auction block, its principal lenders are usually already in control and Chapter 11 merely puts in place a preexisting deal."

Despite the Baird and Rasmussen view, it is still a widely-held belief that Chapter 11 is a mechanism of reorganization and that the primary alternative to reorganization is Chapter 7 liquidation. This belief, however, overlooks the fact that Chapter 7 has almost completely gone out of favor. There are only twelve instances of large non-financial firms filing for directly for Chapter 7 from 2004 to 2017.[2] What has happened to the firms that, under the original conception of the Bankruptcy Code, should be filing for Chapter 7?

In order to explore this question, I take advantage of a common bankruptcy declaration usually filed within the first week of the case that describes the debtor's background and its goals for the process. I find that 35% of the large non-financial firms filing for Chapter 11 intended to reach an M&A deal or liquidate.[3] This establishes the first key fact about corporate bankruptcy today, which is that Chapter 11 has subsumed Chapter 7.

Given the first fact, from the perspective of management, the success or failure of the bankruptcy process necessarily depends on the debtor's initial objectives for the case. I then define two types of failure in Chapter 11: intended restructurings that resulted in liquidation and intended acquisitions that resulted in liquidation. The second key fact is that corporate

[1]See, for example, the Bankruptcy Tax Act of 1980, the Bankruptcy Amendment Act of 1984, the Bankruptcy Reform Act of 1994, and the Bankruptcy Abuse Prevention and Consumer Protection Act of 2005.

[2]Personal medical practices and land trusts are not included in this count.

[3]More detail about this declaration is provided in Section 2. Though it might seem counterintuitive that debtors would seek an asset sale or liquidation in Chapter 11, there are significant benefits to Chapter 11 sales such as the ability to enforce a stay on creditors while the sale process is underway, the ability to protect going concern value through motions that allow continued operations, the option to sell assets free and clear of liens, and the implementation of auction features that benefit certain buyers. In addition, managerial compensation in Chapter 11 is increasingly tied to successful acquisition outcomes.

bankruptcy failures are relatively uncommon: only 6% of large non-financial firms that file for bankruptcy aim to reorganize but end up liquidated, while only 4% of this group aim for acquisition but end up liquidated.[4]

To gain insight into the potential mechanisms behind the success of most Chapter 11 cases, I explore the circumstances of each debtor going into bankruptcy. I find that pre-packaged plans and pre-arranged sales (collectively "pre-packs") have been on the rise since the early part of the sample period, and have been present in over 55% of all Chapter 11 cases filed after the Great Recession. A supporting fact is that restructuring support agreements, which contractually lock negotiating parties into the terms of a bankruptcy plan even before filing, have been on the rise. Since 2014, they have been present in approximately 40% of all cases, whereas the percentage prior to the Great Recession was closer to 15%. While firms exhibit a high degree of preparedness prior to Chapter 11 in the form of downsizing efforts and negotiations with creditors, these actions to not seem to have increased in frequency to the extent that contractual preparation measures have. This suggests that the ability of firms to successfully navigate Chapter 11 may be due in part to the ability of distressed firms' management or creditors to anticipate and respond to the structure of the bankruptcy system.

Finally, I study whether the variables that predict failure differ across failure type. The variable that consistently and strongly carries a negative association with failure is the measure of whether the case was a pre-pack. Pre-packs are approximately 15% less likely to experience unanticipated liquidations. On the other hand, the variable that consistently and strongly carries a positive association with failure is inclusion in the retail industry. Retail bankruptcies are approximately 20% more likely to unexpectedly liquidate. Certain variables have different effects on restructuring versus acquisition failures, however. The presence of a hedge fund, store closures prior to filing, and the attribution of the cause of bankruptcy to excess leverage all have significant negative relationships with failed reorganizations but no strong relationships with failed acquisitions. The choice of the Southern District of New York has a significant negative association with failed acquisition but no corresponding association with failed reorganization.

This paper makes two main contributions to the literature. While descriptive, it is the first to systematically study Chapter 11 objectives and compare them to outcomes. Conditioning on objective is important because evaluating Chapter 11 based solely on outcome will overstate failure rates and be subject to reverse causality biases in cases where variables

[4]While 12% of all cases involve intended restructurings that resulted in acquisitions, it is not clear that acquisitions are failed outcomes. In fact, there is a large literature suggesting that the most efficient bankruptcy systems might be built around auction mechanisms. See Baird (1986), Bebchuk (1998), and Eckbo and Thorburn (2009). Skeel (1993) reviews the arguments for and against this form of bankruptcy.

of interest are present as a result of or in relation to a particular objective. The second major contribution of this paper is methodological. I use a combination of heuristic and machine learning approaches to extract data from a comprehensive corpus of bankruptcy documents that provide a detailed window into the events that take place prior to filing.

This paper complements an existing literature that documents the rise of asset sales in Chapter 11 and the relative scarcity of adverse liquidation outcomes. Baird and Rasmussen (2003) find that in a sample of 93 large bankruptcy cases filed in 2002, 84% were either prepackaged plans or resulted in acquisition. While I find in my sample that the corresponding fraction is only 63%, their study relied on data from the UCLA-LoPucki database which covers a limited range of even larger firms. One would expect that smaller firms are less able to anticipate and manage the negotiation process before bankruptcy. Hotchkiss and Mooradian (1998) focus on a sample of 55 Chapter 11 acquisitions and find that they lead to improved operating performance. Ayotte and Morrison (2009) find that, contrary to beliefs held at the time, secured creditors wield significant control in Chapter 11 cases and that sales are more likely when these creditors are over-secured. Gilson, Hotchkiss, and Osborn (2016) explore the dynamics and efficiency considerations of M&A in bankruptcy, showing that bankruptcy sales are similar to reorganizations in terms of economic efficiency.[5] This may explain why I am unable to identify firm or court characteristics that significantly predict restructuring to acquisition failures.

Some argue that recent trends in the administration and outcomes of Chapter 11 bankruptcy stem from improvements in information and specialization on the part of bankruptcy participants. While this paper does not touch directly upon issues of activism or control in Chapter 11, the low incidence of unintended liquidations may be explained in part by the prevalence of distressed debt professionals. Hotchkiss and Mooradian (1997) and Ellias (2016) find that hedge funds that specialize in distressed investing add value by disciplining managers. Jiang, Li, and Wang (2012) add to the list of benefits brought about by hedge funds by arguing that they also combat liquidation bias on the part of secured creditors, relax financial constraints, and contribute to sound management practices during the Chapter 11 process such as the retention of key employees. Bankruptcies that are backed by private equity sponsors also display more efficient restructuring outcomes, as examined by Hotchkiss, Smith, and Stromberg (2014). Baird and Rasmussen (2010) issue a word of caution against these types of investors and professionals, however, arguing that they make coalition formation more difficult and lead to an "empty core" problem. My results are consistent with the idea that hedge funds improve the efficiency of the reorganization process, but puzzlingly, they have

[5]Meier and Servaes (2014) also study asset sales in bankruptcy, but do so from the perspective of value creation for acquirers.

no bearing on the acquisition process.

There is a deep technical literature on bankruptcy prediction, although I do not purport to make a methodological contribution in this regard. While most papers in this area are concerned with predicting default, some focus on predicting outcomes conditional on default. The prediction literature began with univariate (Beaver, 1966) and Z-score models (Altman, 1968). These gave way to probit and logit models in the 1980s (Ohlson, 1980 and Zmijewski, 1984). In the 1990s, the computer science literature began applying machine learning and neural network techniques to bankruptcy prediction.[6] After Shumway (2001) demonstrated that discrete-time hazard models with time-dependent covariates were computationally equivalent to dynamic logit models, hazard models took hold in the finance and economics literature. I employ linear probability models throughout the analysis, although results are supported by logit regressions.

The rest of the paper is organized as follows. Section 2 describes the sample refinement process and data sources. Section 3 lays out the empirical specifications used in the predictive segment of the paper. Section 4 describes summary statistics. Section 5 explores the determinants of Chapter 11 types and Section 6 explores the determinants of Chapter 11 failures. Section 7 discusses the broad implications of the results. Section 8 concludes.

2 Data

This section describes the sample selection process, the quasi-automated techniques used to extract data from court records, the methods used to identify bankruptcy outcomes, and variables collected from other sources.

2.1 Sample

The sample of bankruptcies in this paper covers all non-financial Chapter 11 firms with over $100 million in assets that filed between 2004 and 2017 (inclusive) in U.S. non-territorial courts. To begin, I retrieve the list of all Chapter 11 filings with over $100 million in assets in the sample period from the New Generation Research bankruptcydata.com database (NGR). NGR provides information on the firm name, the bankruptcy court of filing, the year of filing, and a 5-digit number that is unique within each court-year. This search yields 2,549 individual cases. However, despite being large, many of these cases represent subsidiaries that are administered jointly under one lead or parent case. In order to identify subsidiaries, I first identify candidates by selecting cases that were filed on the same day in the same court.

[6] For a survey of this literature, see Atiya (2001).

For these cases, I then check three sources of information from the Public Access to Court Electronic Records (PACER) repository to identify the lead case: the associated cases page, docket entries that reference joint administration, and the full text of joint administration orders.[7] After consolidating cases at the lead level, 970 bankruptcies remain.

In the next round of filtering, I remove 55 cases that differ substantially from the representative Chapter 11 case. The removals were as follows: eighteen (18) foreign business entities, thirteen (13) cases that were immediately dismissed for having been filed in bad faith or for not meeting basic filing requirements, thirteen (13) cases that were truncated because they were transferred into or out of different courts, ten (10) cases with assets less than $100 million, four (4) churches or non-profits, and two (2) trusts designed for the sole purpose of administering asbestos claims.[8]

I then remove 114 firms in the financial or real estate industries.[9] I also remove six firms without documents on PACER, since document-level detail is necessary to establish intent at the outset of the bankruptcy and, in some cases, to determine the outcome.[10] Lastly, four cases (less than 1% of the remaining sample) are removed because they had not reached a disposition as of December 31st, 2018.

This process yields a final sample of 784 cases. Because a key predictive component of this paper involves the designation of a case as a "pre-pack" bankruptcy, I identify these by searching for docket entries that contain the words "plan", "disclosure statement", or the combination of "substantial" and either "sale" or "sell".[11] I then manually verify that plan entries refer to actual Chapter 11 plans and that sale entries are motions filed by the debtor and refer to acquisitions of the entire debtor and not just one of its divisions or subsidiaries. All cases with plans or sale motions filed within the first 30 days of the case are considered pre-packaged bankruptcies or pre-arranged sales, which I refer to collectively as "pre-packs".[12] Pre-packs sum to 374 firms and account for 48% of the sample. The "full

[7]The docket is a description of all documents filed in a case, as well as major court actions such as hearings or adversary case filings.

[8]Although many firms report that their total assets may be less than $100 million because they are hard to value, I remove only the cases with clearly less than $100 million in assets that were included in the NGR sample because they appeared to have reported their asset bin erroneously.

[9]I remove firms in the financial industry because these were predominantly banks or insurance companies, and these cases often involve significant oversight by regulators such as the FDIC or the NAIC. For real estate cases, it is not clear that there is a meaningful economic difference between restructuring, acquisition, and liquidation (foreclosure).

[10]These cases were filed in the early part of the sample. Although all bankruptcy filings should be available on PACER as of January 1st, 2004, several states were late to comply.

[11]Docket searches were not case-sensitive and excluded reference sections.

[12]Although I consider a 30-day window, the median length of time between filing and submission of a Chapter 11 plan for cases counted as pre-packaged bankruptcies is one day, and the median length of time between filing and the first sale motion for pre-arranged sales is two days.

bankruptcy" sample consists of 410 cases.

2.2 First-Day Declarations

Some bankruptcy districts have implemented local rules that require debtors to submit, along with the first-day motions, an affidavit or declaration (henceforth referred to as the first-day declaration) describing the key elements of the case, including a description of the debtor's business, the events that led to the filing of the case, and information about the debtor's continued business operations.[13] First-day declarations are usually written by the CEO, CFO, or Chief Restructuring Office of the firm. Even in courts where no such rule is formalized, it is often the convention that such declarations are filed. To identify these documents, I automatically search all docket entries for the terms "first", "in support", and either "affidavit" or "declaration". [14] In courts where I was able to identify a local rule concerning first-day declarations, I also search for the local rule number. I then verify the accuracy of these docket entries manually. For cases without first-day declarations, it is still overwhelmingly the case that similar information is provided in the text of one of the first-day motions. I manually identify and review the text of all first-day motions in these cases, selecting the document that provides the most background information about the case.

Equipped with first-day declarations, I then identify the debtor's objectives for the bankruptcy using a combination of automated and manual methods. After reading a random sample of twenty first-day declarations, I identified anchor terms that are associated with stated outcomes.[15] I then use an automated procedure to extract three lines of text inclusive of and immediately before and after the matched term, and manually identify and classify the most representative intent snippet from the candidates selected in the automated step. The three classes of intent are restructuring, acquisition, or liquidation. Consider, for example, the following excerpts:

> (1) "`The company is confident that a court-guided reorganization will give Citation the breathing room it needs to improve cash flow and emerge as a profitable company.`" *Citation Corporation (2004)*

> (2) "`Fleetwood intends to focus on maximizing the value of its business`

[13]See, for example, Local Rule 1007-2 in the Southern District of New York.

[14]A popular naming convention for this type of document is "Declaration of *Name* in Support of the Debtor's Chapter 11 Petition and First Day Motions."

[15]These terms are "objective", "emerge", "ultimate", "potential buyer", "potential bid", "363 sale", "stalking horse", "substantially", "wind down", and "orderly liquidation". I also search for instances of the word "success" within two lines of the word stems "restructur" or "reorg" as well instances of the phrase "balance sheet" within two lines of the word stems "restructur" or "reorg".

`through potential sales as a going concern.`" *Fleetwood Enterprises (2009)*

(3) "`The Debtors commenced these Chapter 11 cases to promptly and efficiently liquidate their assets.`" *Goody's, LLC (2009)*

For the above excerpts, (1) is classified as an intended restructuring, (2) as an intended acquisition, and (3) as an intended liquidation. In cases for which no snippets were identified in the automated step, I manually searched the entire first-day declaration for excerpts signaling intent. I was able to identify intended outcomes and corresponding text snippets in all but one of the 784 cases.[16]

I also use first-day declarations to characterize the restructuring efforts and negotiations that took place prior to the filing of each bankruptcy.[17] First-day declarations are typically structured into three sections: as an introduction, a presentation of the firm's background, and a description of all court motions filed on the first day of the case. Within the background section, the document usually contains information about the firm's operations, its capital structure, financial and non-financial restructuring attempts, and the events that triggered the bankruptcy filing.

I Identify all variables using anchor terms.[18] In some instances, it is appropriate to search the entire first-day declaration for an anchor phrase in order to populate a variable. For example, a case is considered to have involved a restructuring support agreement if the phrase "restructuring support agreement" was present anywhere in the first-day declaration. In other cases, it is necessary to limit the search to a particular section. For example, "trade terms" may indicate that unfavorable trade terms were a cause of the bankruptcy if this phrases appears in a paragraph describing bankruptcy triggers whereas the term may also appear in the description of a first-day motion requesting the designation of certain vendors as critical, in which case a phrase match would not indicate cause. In order to search for certain anchor terms, I require a corpus of first-day declaration sections that are classified by type. I classify paragraphs within the declaration using the following six steps:

1. **Remove text**: First-day declarations contain a significant amount of extraneous text (e.g. headers, footers, and time stamps). I first split first-day declarations into individual lines of text and then use information about capitalization, white space, the

[16] I classified this case, China Natural Gas, Inc., as an intended restructuring because no sales motions or wind-down motions were filed, and the relevant first-day motion did not mention any pre-restructuring sales attempts. It was also one out of only six involuntary cases.

[17] High-level summaries, extracted from first-day declarations, are provided in the Online Appendix for all cases that resulted in unanticipated Liquidation. Online Appendix A presents information on all cases that aimed to reorganize but were ultimately liquidated, while Online Appendix B presents information on all cases that aimed to be acquired but were ultimately liquidated.

[18] Data on these anchor phrases are available in Online Appendix C.

number of alphabetic characters, and common time stamp terms to remove lines that are not within the main body of text.

2. **Paragraphize**: The vast majority of paragraphs in first-day declarations are numbered. Using this information, I transform lines of text into paragraphs by identifying paragraph starts and stops based on certain numbering formats in the beginning of a line of text.

3. **Review starts and stops**: I then manually review all starting and stopping points for two reasons: several firms do not number their paragraphs (these paragraphs are extracted manually), and first-day declarations often contain appendices of financial agreements with paragraphs that are also numbered, leading to a run-on problem.

4. **Remove motions section**: Many first-day declarations contain boiler-plate legal language that indicates the section of the document, including common paragraphs that mark the beginning of a motions section. I manually reviewed declarations in a random order until I had comprised a list of 30 distinct introductory paragraphs that indicate the beginning of a motions section. I then run a Naive Bayes classifier that removes all paragraphs following an introductory paragraph to the motions section.[19]

5. **Training set**: Using the cleaned paragraph data stripped of motions sections, I randomly selected cases and hand-labeled all of their paragraphs. I labeled paragraphs according to six categories: introduction, operational background, capital structure, negotiations, cause, and motions.[20] This process yields 1,000 labeled data points out of 44,410 paragraphs.

6. **Naive Bayes classification**: Using the labeled paragraphs, I remove punctuation and common stop words (such as "the" and "or") and identify the 100 most common words from each paragraph category and the 50 most common word bigrams, or words located next to each other, that appear at least 10 times in the labeled paragraphs. From the set containing the union of these phrases, I use a Naive Bayes model to identify the 200 most informative phrases.[21] I then use these words as features in the model (known as the "bag of words" and "bag of bigrams" approach) to classify the remaining unlabeled paragraphs.[22]

While classified paragraphs might provide the appropriate corpus over which to search for pre-bankruptcy planning and negotiation terms, the next step involves identifying those terms. Having reviewed at this point a significant volume of declaration paragraphs, I heuristically identify four relevant categories of data: plan sophistication, pre-bankruptcy financial restructuring efforts, pre-bankruptcy non-financial restructuring efforts, and bankruptcy

[19]All cases in which such an introductory paragraph was not identified will have no paragraphs removed.

[20]In some cases, step 4 did not remove the motions section.

[21]The likelihood ratio for the 200th term is 10.2

[22]Naive Bayes is the most popular machine learning algorithm for text classification as of this writing. For a straightforward explanation of Naive Bayes, see https://machinelearningmastery.com/naive-bayes-for-machine-learning. I implement Naive Bayes using the NLTK package in python. The 200 most informative features can be found in Online Appendix C.

causes. I further divide these into sub-categories. Plan sophistication consists of pre-packaged plans (for which I already have data) and restructuring support agreements. Pre-bankruptcy financial restructuring consists of credit agreement amendments and forbearance agreements. Pre-bankruptcy non-financial restructuring consists of store closures, layoffs, and attempts to sell all or part of the firm. Causes are broken down into four categories (economic, financial, competition, and cost), where those categories consist of further sub-categories as presented in Figures VI through IX.

To select anchor terms for each variable, I then review an additional 2,000 classified paragraphs. For example, an anchor term that indicates that a firm listed an overall economic downturn as one if its causes of filing is the presence of the phrase "global recession" in a cause paragraph. All variables collected using this procedure are indicator variables that equal one if an anchor term is matched at least once for a given firm in to its respective variable, and zero otherwise. One problem with the classified paragraphs, however, is that while a single paragraph may contain more than one true class, the Naive Bayes procedure only assigns one class to each paragraph. There is significant overlap between capital structure, negotiation, and cause paragraphs, as indicated by the fact that the highest pair-wise correlation between classification categories exists between these three. Therefore, I select for certain terms to be searched for in the full first-day declaration while other terms are only searched within these three paragraphs. The full set of anchor terms, variables, and search criteria are available in Online Appendix C.

Finally, first-day declarations are also used to identify the presence of hedge fund activists *at the outset of the case.* I obtained a list of distress fund names by combining the lists provided by Capital IQ and the Distressed Debt Investing website http://www.distressed-debt-investing.com. Because financial institution names usually come in multiple variations (e.g. Oak Hill Capital Partners and Oak Hill Investment Management LP), I trim names to 10 characters. After randomly reviewing name matches within paragraphs, I manually lengthen distress fund names that are not sufficiently informative (e.g. Summit) to minimize type I errors. I also exclude the names of firms that manage large pensions such as Fidelity and Blackrock because they are frequently mentioned in first-day motions that describe retirement contracts. The measure of hedge fund presence is an indicator variable that equals one if there is at least one distress fund name match in a first-day declaration. Because distress funds sometimes use tactics to remain anonymous, I add to this measure any additional firms that mentioned "ad hoc" groups in their first-day declarations.[23] Anecdotally, these groups and committees typically consist of hedge funds, which is verifiable in cases

[23] I ran a text search for the term "ad hoc" combined with any of the following: "committee", "noteholder", "prepetition", "group", "second lien", and "third lien".

that submit Chapter 11 plans that must contain a list of group members in the definitions section.

2.3 Outcomes

Classifying realized outcomes is equally if not more challenging than classifying intended outcomes. This is because, despite their prevalence, courts still have no systematic way of signaling acquisitions. Cases that result in acquisition usually achieve this outcome through plan sales, in which a "Plan of Reorganization" is confirmed that describes the auction and sale process and apportions recoveries that are contingent on the outcome of the sale, or sales pursuant to §363(b) of the Bankruptcy Code, in which steps of the auction and sale process must be sequentially approved by the judge. Two features of Chapter 11 stand out as reasons behind the difficulty of classifying outcomes: (i) plan sales, whether intended for acquisition or piece-meal liquidation, are often indistinguishable in the docket from plans of reorganization, and (ii) §363(b) sales usually culminate in conversion to Chapter 7 or dismissal. In addition, the meta data provided by courts to data vendors often include information only on whether a plan was confirmed or the case was converted to Chapter 7 or dismissed, but not on whether the firm was restructured, acquired, or liquidated.

To categorize outcomes, I begin by identifying acquisition candidates (using the same search terms used to identify pre-arranged sales) and manually verifying that the acquisitions involved substantially all the assets of the firm and that the sales were completed. I then turn to cases that were either converted to Chapter 7 or dismissed. For these, I read the text of the ultimate conversion or dismissal motion to classify the outcome.[24] In the remaining set of firms, plans were confirmed by the court. As a first pass, I search for the word stem "liquidat" in conjunction with the terms "plan" or "disclosure statement" in docket entries, and manually verify that plans of liquidation were confirmed. For the remainder, I manually review disclosure statements to classify the type of plan. In doing so, I consider cues such as the creation of new shares, the appointment of new officers, the terms of auctions and the assets being auctioned, and the appointment of liquidating trustees or trusts.[25]

[24]Some conversions or dismissals, for example, were preceded by acquisitions that were missed in the first step. Some dismissals were filed by the debtor after the acknowledgment that restructuring was an unlikely outcome and the firm's secured and under-collateralized creditors preferred foreclosure. Alternatively, some dismissals were preceded by settlements between the debtor and its major creditors that called for a more expeditious continuation of the firm outside of bankruptcy.

[25]Inevitably, some subjective judgment is involved in classifying cases with multiple possible outcomes. For example, although Fedders Corporation's 2007 bankruptcy resulted in the confirmation of a liquidating plan, the company had separately auctioned off its major heating and cooling subsidiaries prior to the plan and it is classified as an acquisition. In Filene's Basement's 2011 bankruptcy, even though the brand copyrights were sold as part of a reorganization plan to a private equity firm that later re-launched the company as an online retailer, all of the firm's physical locations were closed by the end of the Chapter 11

2.4 Other Variables

I also collect data on outcomes from the UCLA-LoPucki Bankruptcy Research Database (BRD) and NGR, although neither cover the complete set of non-financial cases with over $100 million in assets. For cases not covered by BRD or NGR, I count the outcome that I identified as the final outcome. For cases with data from at least two sources, if all available sources were in agreement on the outcome, I count that outcome as the final outcome. If all available sources were not in agreement, I use broad-based web searches to verify the final outcome.

To identify firms that have filed for bankruptcy at least once before (indicated as Ch. 22 + in the tables), I start with the names provided by NGR. NGR uses a naming convention that indicates a repeat filer by including the year of the bankruptcy in parentheses after its name. For example, the name of KB Toys in its first bankruptcy filing is "KB Toys, Inc. (2004)" while its name in its second bankruptcy filing is "KB Toys, Inc. (2008)". NGR does not indicate, however, the sequence of filings. In order to verify that a firm has filed for bankruptcy previously as of its petition date (and not that it will file again in the future), I manually check each of the candidate repeat filers using NGR name queries and broad-based web searches.

Finally, data on judges, employees, and leverage are collected from NGR. Although data on assets and liabilities are non-missing for nearly the whole sample, liabilities are frequently reported as 0 and assets frequently reported as one dollar over the minimum threshold of the asset size bin that was selected on the firm's bankruptcy petition. To overcome this issue, I create flags that indicate when assets and liabilities are most likely reported incorrectly. For these cases, I hand-collect data from disclosure statements and schedules of assets and liabilities. Because data from disclosure statements and schedules often omit or double count liabilities, the leverage variable is winsorized at the 2% level. Information on data coverage for employees, assets, and leverage is provided in Panel B of Table I.

3 Empirical Methodology

The third and fourth facts presented in this paper relate to the prevalence of pre-bankruptcy planning and the characteristics associated with failed bankruptcies. In addition to the trends visualized in Figures III through IX, I include two sets of simple predictive models: those that predict the type of bankruptcy filing based on pre-bankruptcy information and those that predict bankruptcy failure.

process and it is classified as a liquidation.

To study the determinants of various types of Chapter 11 filings, I identify three main outcome variables of interest: filing sophistication, filing objectives, and venue. The results of these specifications are presented in Tables II-IV. The unit of observation is at the case level and all specifications are linear probability models. Linear probability models have the advantage of clarity because each coefficient can be interpreted as the percentage point increase in the probability of the dependent variable associated with a one-unit increase in the covariate.[26] The specification takes the following general form:

$$\mathbf{1}_{BankruptcyType,i} = \alpha + \Gamma\mathbf{X}_i + \tau_i + \lambda_i + \varepsilon_i \tag{1}$$

$\mathbf{1}_{BankruptcyType,i}$ is an indicator variable that equals one if the firm meets the conditions for each bankruptcy type, and zero otherwise. $\mathbf{X}_i$ is a matrix of case-level covariates. Covariates measure the presence of pre-bankruptcy restructuring and negotiation measures as described in Section 2 as well as an indicator of repeat filing, an indicator of hedge fund presence, and employee count, ln(Assets), and leverage. τ_i denotes period fixed effects, as described below, and λ_i denotes industry fixed effects. Summary statistics for these variables are presented in Table I. α is the intercept (unreported) and ε_i is the error term. All standard errors are heteroskedasticity-robust and clustered at the bankruptcy court level. In the second set of tests, I focus on two main types of failure: intended restructurings that result in liquidation (R $\rightarrow$ L) and intended acquisitions that result in liquidation (A $\rightarrow$ L).[27] Failure specifications are similar to those characterized by Equation 1 but are conditioned on intent:

$$(\mathbf{1}_{Failure,i}|Intent) = \alpha + \Gamma\mathbf{X}_i + \tau_i + \lambda_i + \varepsilon_i \tag{2}$$

$\mathbf{1}_{Failure,i}$ is an indicator variable that equals one if the bankruptcy case failed (either as a restructuring or liquidation), and zero otherwise. Covariates and broadly similar to those in Equation 1, although which covariates are included vary by table. All specifications include indicators for filing in Delaware or New York Southern. Only Delaware and New York Southern are included in the model because of the relative scarcity of filings in all other courts. Summary statistics for these variables are presented in Table I. τ_i denotes period fixed effects, as described below, and λ_i denotes industry fixed effects. α is the intercept (unreported) and ε_i is the error term. Again, standard errors are heteroskedasticity-robust and clustered at the district level. Time periods are clustered into four categories: pre-crisis (2004-2007), crisis (2008-2009), post-crisis (2010-2013), and recent (2014-2017). In all

[26]Results from logistic regressions, not reported, are substantively similar in sign and significance across all tables.

[27]For reasons discussed in Section 6, I do not consider intended reorganizations that a result in acquisition as failures.

models, the recent period is the omitted group. Industry covariates are indicator variables that equal one if the bankrupt firm was in a particular industry category and zero otherwise. Industry data are collected from NGR and 27 original categories were combined into 9 broad categories. All original categories were assigned to a unique broad category with the exception of mining, in which coal mines were assigned to energy and all other mines were assigned to materials. In all models, the "other" industry category is the omitted group. Leverage is defined as liabilities divided by assets.

4 Descriptive Statistics

Figure I provides a visual representation of the fraction of cases in the sample that are successes or failures under the traditional view of Chapter 11 as well as the modified view that takes initial objectives into account. The top panel indicates the prevalence of successful bankruptcies. Of these, 50% of the sample intended to restructure and ultimately achieved a successful restructuring outcome. 20% intended to be acquired and were ultimately acquired. 5% intended to liquidate and ultimately liquidated. It is worth noting that a non-trivial number of firms "switch" reorganization and acquisition outcomes, that is they state that they initially intend to reorganize and are ultimately acquired, or vice versa. Even though these cases involve outcomes that differ from initial objectives, I count them as successes because in either case, the firm continues operating. Gilson, Hotchkiss, and Osborn (2016) show that Chapter 11 acquisitions are no less efficient at preserving value than Chapter 11 reorganizations, and Baird (1987) argues that acquisitions are actually a superior outcome because they avoid deadweight losses associated with costly bargaining. In addition, of the firms that wanted to reorganize but ended up acquired, approximately 40% conducted sales and marketing procedures prior to filing for bankruptcy and so it is likely that acquisition was a secondary objective that was either unspecified or missed by my categorization procedure. Overall, while the traditional view of Chapter 11 would count 53% of firms in the sample as successes, the modified view would count 90% as successes.

The bottom panel indicates the prevalence of failed bankruptcies, divided between R $\rightarrow$ L and A $\rightarrow$ L failures. While 6% of the total sample involve intended restructurings that resulted in liquidation, 4% involve failed acquisitions. Combined, these deviations from intent represent far fewer failures than would be estimated under the traditional view of Chapter 11, which assumes that firm enter into bankruptcy wishing to reorganize and can end up either reorganized or liquidated.

Figure II illustrates trends in Chapter 11 and Chapter 7 filings over time. It most succinctly demonstrates fact one, which is that Chapter 7 is almost never used as a bankruptcy

mechanism by large non-financial firms. Of the firms filing for Chapter 11, there are two spikes in filings: the first in 2008-2009 with the Great Recession and the second in 2016 with the collapse of oil prices. All industries were affected by the Great Recession, but energy firms accounted for the majority of the spike in 2016. While other industries such as raw materials and retail have experienced their own industry downturns, they were either too protracted or too small in number to show up in Figure II.

Figures III through V depict trends in pre-bankruptcy planning over time. Top panels plot the number of filings per year while bottom panels plot the fraction of cases per year. Figure III represents fact three, which is that the incidence of bankruptcy plans with pre-arranged terms has been on the rise. Pre-packs in this figure represent both pre-packaged plans and pre-arranged sales. In the first two years of the sample, fewer than 30% of firms filed pre-packs on average while this statistic jumps to over 50% in the last two years of the sample. Restructuring support agreements are arguably a stronger measure of preparedness entering into a bankruptcy. These agreements are contracts that bind parties to the terms of a bankruptcy plan. The prevalence of restructuring support agreements has experienced an even stronger upward trend, increasing by over a factor of three from the beginning to the end of the sample.

Figure IV shows that, in terms of number, pre-bankruptcy planning efforts generally track rates of filing. Although values vary from year to year, the proportion of firms laying off workers or closing stores prior to bankruptcy has not increased notably over the course of the sample. Pre-bankruptcy asset sale attempts, however, increased markedly from 2004 to 2013, at which point over half of all firms attempted to auction some or all of their assets prior to filing. Since 2013, however, the rate of pre-bankruptcy asset sales has fallen. Taken together, Tables III and IV suggest that managers or creditors have become more sophisticated with regard to the bankruptcy process, but real decisions have remained relatively steady.

Figure V demonstrates the number and proportion of credit agreement amendments and forbearance agreements that are reached prior to bankruptcy. Amendments appear to spike, proportionally, around economic downturns, indicating that market participants absorb market-wide shocks to some degree. While forbearance agreements became more popular proportionally in the first five years of the sample, they have been roughly steady since. Figure V shows that while it is exceedingly common for firms to renegotiate their debt contracts during distress, greater leniency of lenders does not seem to match the upward trend in pre-packs and restructuring support agreements.

Figures VI through IX explore the immediate causes of bankruptcy, as described by managers in first-day declarations. Figure VI explores economic causes, which are defined as overall economic downturns, industry downturns, or demand concerns. By number, the

attribution of economic causes spikes around the Great Recession and the drop in oil prices, unsurprisingly. Proportionally, industry downturns and demand causes significantly co-move, while blame on general economic conditions spikes to over 80% by 2009 and, surprisingly, remains elevated until 2017.

The second set of bankruptcy triggers are explored in Figure VII. This figure plots the incidence of cause attributed to excess leverage, debt coming due, and unfavorable trade terms. It is very common for firms to blame excess leverage as a bankruptcy cause, with proportions at roughly 70% over the full sample period, although this cause has remained relatively stable over time. The proportion of firms citing debt maturity as a cause was highest in the period after the financial crisis, from 2009 to 2013. That these proportions remained elevated for so long after the financial crisis is curious, because immobile capital markets may have led to refinancing concerns around the time of the financial crisis, but should have been alleviated after 2010. Firms that filed for bankruptcy because trade creditors amended their terms, thus leading to liquidity issues, remained roughly constant at close to 20% throughout the sample, with the exception of 2017 in which the proportion jumped to over 30%.

Firms citing competitive concerns as their causes of filing, depicted in Figure VIII, do not demonstrate clear trends. Competitive concerns appear somewhat countercyclical, at least in the sense that they were close to their lowest proportions in 2008 and 2009. Firms blaming foreign competition (in a separate category) spiked in 2006, and were elevated again from 2012 to 2015. Given that globalization has been taking place for close to half a century, it is not surprising that there has been no increase in blame on foreign competition over the course of the past 15 years.

Finally, Figure IX shows that firms filing for Chapter 11 due to elevated costs do not seem to have increased, proportionally, in the sample period. Costs are split into input costs, labor costs (which include pensions), and regulatory or legal costs. Regulatory or legal costs include regulation, litigation, and policy costs. The only possible trend is that there may have been a rise in regulatory and legal costs from 2008 to 2014, but these causes fell in the last three years of the sample. One possible explanation is that this encompasses the first term and part of the second term of the Obama presidency, although if this were the cause of these elevated bankruptcy causes, it is not clear why it would have become less pressing in 2015 and 2016.

Summary statistics on binary variables are presented in Table I Panel A. This table confirms the common wisdom that Delaware and New York Southern are by far the most common venues for Chapter 11, jointly accounting for 67% of the entire sample. Texas Southern, Texas Northern, and Virginia Eastern are distant followers after the top two

courts. In terms of success rates, New York Southern and Texas Southern are among the top courts, each only experiencing unanticipated liquidation rates of 7%. Though only three cases were unexpected failures in the Virginia Eastern, they constitute 20% of the firms filing in that district.

Roughly half of the industries in the sample have failure rates of less than 10%. Retail stands out as by far the most failure-prone industry, with over 20% of firms experiencing unanticipated liquidations. Surprisingly, the technology industry also has a high failure rate of nearly 14%. Although the technology sector is typically hailed as a primary driver of growth, it is often overlooked how quickly technologies can become obsolete when they are replaced by newer, more effective alternatives.

In terms of sophistication, Table I reveals a stark finding: nearly all of the cases that file pre-packaged plans or reorganization or restructuring support agreements achieve their intended outcomes. Firms with pre-arranged sales, on the other hand, experience roughly the same rate of failure as the overall sample, indicating that the terms of auctions or stalking horse agreements provide some flexibility to potential acquirers. Firms whose distress periods involve hedge funds are less likely to experience failed bankruptcies, while repeat filers (Chapter 22 or Chapter 33) are more likely to fail than average.

In terms of pre-bankruptcy reorganization efforts, there are no categories that indicate likely failure. Firms that were granted amendments to their credit agreements are slightly less likely to fail, while firms that closed stores or laid off employees prior to filing are slightly more likely to fail, other things equal. Regardless of the cited cause, there is little variation in failure propensity, with all causes being associated with a roughly 9% chance of failure.

Data on financial variables are summarized in Panel B of Table 1. The median successful firm has assets worth approximately $375 million and employs 1,334 workers. The median firm that experiences a failed bankruptcy has assets worth approximately $265 million and employs 1,500 workers. It is somewhat surprising that the median failed firm employs so many workers, especially because judges are commonly said to have pro-employment biases, because they face political pressures to preserve jobs. Failed firms also surprisingly have lower leverage ratios, with the median firm failed firm appearing to be solvent. One possible explanation is that failed bankruptcies result from neither liquidity nor economic distress, but other factors such as internal disputes or litigation. It should be noted, however, that there is significant missing data on leverage. This may be consistent with the possibility that these firms face liabilities that are hard to quantify.

5 Determinants of Chapter 11 Filing Types

Tables II through IV explore the various types of Chapter 11 filings, and the pre-bankruptcy factors that predict each filing type. Table II specifically examines the characteristics associated with pre-packaged Chapter 11 plans (pre-plans), restructuring support agreements (RSAs), and pre-arranged acquisitions (pre-sales). Note that in Figure II the term pre-pack includes both pre-plans and pre-sales, whereas these two types of filing are distinct groups in Table II. All odd columns exclude employee and asset size as well as leverage, while all even columns include these controls. This same ordering applies for Tables III through VI, as well.

Table II reveals that firms that close stores prior to filing are significantly less likely to file any sort of pre-pack or support agreement. A number of variables are associated with a higher likelihood of pre-plan or RSA, but not pre-sale. These include forbearance agreements, recession causes, overleverage causes, and the involvement of hedge funds. With the exception of the recession cause variable, the other variables indicate that the presence of sophisticated investors contribute to higher likelihoods of filing sophisticated Chapter 11 plans. That recessions are actually more likely to witness degrees of sophistication is good news for the economy, since firms are able to handle economic distress in the form of business cycle shocks. The one overwhelming factor that predicts a pre-arranged sale is the marketing of the firm's assets for sale prior to the bankruptcy. This is not entirely surprising: after all, a firm must market itself for acquisition prior to bankruptcy if it is to enter bankruptcy with a potential buyer in place. What is perhaps surprising is that the coefficient on Sale Prior is not larger in magnitude, and that the adjusted R^2 is still less than 0.3. This is perhaps because many sales prior to bankruptcy fail, and as the summary statistics suggest, not all pre-sales result in successful acquisitions.

Table III explores the determinants of Chapter 11 objectives. Unlike in Figure I, in which the sample is sorted into specific success or failure paths, a firm in Table III may have more than one Chapter 11 objective if it stated such in its first-day declaration.[28] The two most salient features that predict intended reorganization are excess leverage as a cause of filing and the presence of a hedge fund. This suggests that firms experiencing financial (but not necessarily economic) distress are more likely to attempt a reorganization. It is also well-documented that hedge funds target bankrupt firms in an attempt to gain control through what is called the "loan-to-own" strategy, and this evidence appears true in Table II as well.

Similar to Table II, the one salient determinant of a planned acquisition is evidence of an attempted sale prior to filing. Firms attempting to reorganize versus be acquired tend to

[28] Otherwise, coefficients in all even or all odd columns would sum to one.

be complements in the sense that the variables positively and significantly associated with one objective are negatively and significantly associated with the other, and vice versa. This suggests that these two bankruptcy objectives attract very different types of firms.

While a sizeable proportion of the variation in reorganization or acquisition objectives is explained by these regression results, it is difficult to model the type of firm that files for Chapter 11 with the goal of liquidating. The only variable that has a positive and significant effect on the likelihood that a firm files for Chapter 11 liquidation is repeat filing, or Chapter 22+. This variable is not surprising, since firms that have already gone through bankruptcy but must file again are more likely to be experiencing true economic distress and also have the institutional knowledge of the process, having gone through it at least once, to acknowledge when liquidation is the only viable path. This coefficient disappears when size and leverage controls are added, but sample bias concerns between the specifications in columns (5) and (6) are high because the size of the intended liquidation sample is already small, and over 40% of observations are lost when these controls are added.

Finally, Table IV presents results on the determinants of venue selection. There has been significant debate in the legal literature about the phenomenon called "forum shopping", in which firms with a multi-state presence choose bankruptcy districts that will be most favorable to those in control of the firm immediately prior to bankruptcy.[29] Table IV suggests, however, that the actions that are taken prior to bankruptcy and the causes of filing have little bearing on court venue. Even the presence of hedge funds appears to have no significant relationship with whether the firm files for Chapter 11 in Delaware or New York Southern. Only firms that attempted to sell their assets prior to filing are significantly more likely to file for Chapter 11 in Delaware, and though there is some evidence that the presence of forbearance agreements is also positively associated with filing in Delaware, this effect is dampened when size and leverage controls are added.

6 Determinants of Failed Bankruptcies

This section examines the determinants of failure, or unanticipated liquidation, and whether these determinants vary based on the original objective of the case. Firms are partitioned based on original objective in this section; that is, failed reorganizations are conditional on having listed reorganization as an intended goal while failed acquisitions are conditional on having listed acquisition as an intended goal. Table V examines the general determinants of failure, namely, coefficients on fixed effects from Tables II through IV. Table

[29]For example, a bill sponsored by John Cornyn and Elizabeth Warren in early 2018 was aimed at limited the abilities of firms to engage in this type of behavior.

VI examines whether pre-bankruptcy activity predicts failure. Table VI studies the relationship between hedge fund presence and failure. In each table, restructuring (or R $\rightarrow$ L) failures are on the left side while acquisition (or A $\rightarrow$ L) failures are on the right side.

According to Table V, there are two variables that have a strong, consistent relationship with failure regardless of failure type: pre-packs and retail firms. Pre-pack firms are roughly 13% less likely to experience an unanticipated liquidation while retail firms are approximately 20% more likely to experience a failed liquidation. The strength of the retail result is not surprising: retail, and in particular brick-and-mortar retail, is the one industry that has experienced sustained economic distress throughout most of the sample period, due to the advent of e-commerce. It is not surprising, on the other hand, that pre-packs are significantly less likely to experience failure given the statistics presented in Table I. Once size and leverage controls are added, technology firms are also more likely to experience failed Chapter 11 cases and transportation firms are significantly more likely to experience failed acquisitions. The only court effect is that of New York Southern, which has a strong negative impact on acquisition failure. This result is surprising, because as demonstrated in Table IV, firms that attempt asset sales prior to bankruptcy are significantly more likely to file for bankruptcy in Delaware. At the same time, however, New York Southern is located in Manhattan, a global financial center, and firms engaging in M&A there probably find it easier to market their assets and transmit information to buyers.

Table VI explores various measures of pre-bankruptcy activity. The first five variables measure pre-bankruptcy restructuring efforts and the four variables that follow measure causes of bankruptcy. Table VI indicates that firms are less likely to experience failed reorganizations if they closed stores, received credit agreement amendments, or filed for bankruptcy due to excess leverage. It may be loosely interpreted that firms that are better-prepared, have positive relationships with creditors, and are experiencing financial (though not necessarily economic) distress are more likely to successfully reorganize. While there is weak evidence that firms with higher input costs are more likely to experience acquisition failures while firms that filed for bankruptcy due to broad economic downturns are more likely to successfully be acquired, these results disappear when size and leverage controls are added. Once again, the most significant and sustained determinant of success is the filing of a pre-pack.

As discussed in Section 1, there is a growing literature on the impact of distressed debt hedge funds on bankruptcy outcomes. Table VII shows the association between hedge fund involvement and unintended liquidations. Columns (1) and (4) include only baseline controls, columns (2) and (5) add pre-bankruptcy controls, and columns (3) and (6) add size and financial controls. Interestingly, the presence of a hedge fund is associated with a 5-7%

decrease in the chances that a firm experiences a failed restructuring, while the same presence has no significant impact on acquisition outcomes. Part of this result may be driven by selection bias: as demonstrated in Table III, firms that enter into bankruptcy with the involvement of hedge funds are more likely to target reorganization but less likely to target acquisition. Having said that, 42% of the firms that enter into bankruptcy hoping to be acquired (and not reorganized) involve hedge funds at the outset of bankruptcy. While this finding is not dispositive with respect to the mechanism through which hedge funds affect the bankruptcy process, it suggests that skills involved in reorganizations differ substantially from those involved in M&A, or that hedge funds affect bankruptcy through means other than just procedural enhancement.

7 Discussion

The findings of this paper are broadly consistent with the Baird and Rasmussen (2002) view presented in Section 1. Firms enter into bankruptcy with a strong sense of how negotiations will manifest, and Chapter 11 is frequently used as an auction block. Despite their long-held intuition, this is the first paper to empirically evaluate the extent to which Chapter 11 objectives differ from outcomes. I find that 90% of firms experience successful bankruptcies by this definition.

What do the facts presented in this paper imply about the state of Chapter 11 today? On one hand, they may suggest that there is still a reorganization bias in Chapter 11: too many firms wishing to reorganize are able to successfully do so. Further consideration of the findings, however, imply that this is not the case. Approximately one third of the firms that enter into Chapter 11 do so without any intention of reorganizing. Instead, many of these firms end up acquired. If there is still value in these companies as going-concerns, and if there were a significant reorganization bias present in Chapter 11, managers would attempt to remain in control.

Instead these findings point to a quick, streamlined, and efficient Chapter 11 process that is enhanced in large part by sophisticated parties in control during the pre-bankruptcy period. Two thirds of the large non-financial firms that entered into bankruptcy in 2016 or 2017 did so with a pre-packaged plan, a pre-arranged sale, or a restructuring support agreement in hand. These contractual agreements effectively reduce the deadweight losses associated with bankruptcy and contract around the bankruptcy process. Unprofitable stores or divisions are sold or liquidated without the need for bankruptcy, limiting the necessity for liquidation in bankruptcy. In other words, they are best-responses to the procedures put in place by the Code.

These findings support economic efficiency both from an ex-post and an ex-ante perspective. From an ex-post perspective, few firms would likely experience type 1 bankruptcy errors (reorganizations of negative NPV firms) because sophisticated creditors would not allow such a plan to go through. Few firms would likely experience type 2 bankruptcy errors (liquidations of positive NPV firms) because there exists a robust M&A market for distressed assets. From an ex-ante perspective, minimal bankruptcy costs reduce the costs of default, allowing firms to borrow to finance good investments up to the optimal amount.

Following crises, countries with stricter bankruptcy codes often undergo reforms aimed at making their bankruptcy systems more reorganization-friendly, in the model of Chapter 11. This paper has two key implications for countries that have made such reforms in recent years. First, it takes years if not decades for economic systems to converge to steady state. Periods characterized by managerial reorganization biases and APR deviations may eventually give way to procedural unification and clarity. This transition happened in the U.S., although it was not without the aid of intense scrutiny by academics, policymakers, and judges.

In addition, the prevailing bankruptcy system in the U.S. involves the participation of numerous sophisticated parties including consulting firms, investment banks, lawyers, and hedge funds. In the absence of these players, it may not be the case that most bankruptcies would involve pre-negotiated agreements. Evidence from emerging markets is promising, however. For example, some of the large bankruptcy cases that are the first to go through the Insolvency and Bankruptcy Code passed in India in 2016 have attracted attention from international distressed debt investors.

Despite the efficiency of the current U.S. bankruptcy system, however, there is no doubt that there are complexities from an academic point of view. The fact that firms may now enter into bankruptcy with any objective in mind make it difficult to empirically evaluate whether firms are successful. For example, according to the traditional view of Chapter 11, 47% of the large non-financial firms that have gone through the system in the past 15 years have not achieved their goals. Once those goals are known, however, the true number of deviations shrinks to 10%. This problem could be easily solved by making companies disclose their initial objectives in bankruptcy petitions.

Failing to condition on objectives can lead to clear endogeneity concerns in academic research. For example, hedge funds probably do contribute to the efficiency of the reorganization process, as suggested in Table VII. However, Table III indicates that the effect might be reverse causal: firms are more likely to try and reorganize in bankruptcy if a hedge fund was involved prior to bankruptcy. At the same time, the procedural sophistication that streamlines the bankruptcy process is perhaps most relevant prior to bankruptcy, and the

presence of hedge funds is also a significant determinant of the presence of a pre-packaged plan or an RSA. Ultimately, the institutional complexities and extensive strategic maneuverings of bankruptcy make it a challenging setting for causal interpretation.

Finally, the body of academic literature in finance points to very different conclusions as to the locus of control in bankruptcy. Literature from the 1990s would suggest that managers and equity holders have outsized control. Literature from the 2000s began to point to excessive secured creditor control. A more recent literature highlights the influence of judges in the Chapter 11 process. While this paper does not have clear implications for which parties wield the most control in bankruptcy, it does suggest that the pre-bankruptcy period might be just as if not more relevant from a control perspective than the duration of the bankruptcy itself.[30]

8 Conclusion

Following a policy shock, it is natural that an economic system should remain in transition for a number of years while agents learn about and react to new features of the policy. The empirical bankruptcy literature of the 1990s reflected this transition period, in which bankruptcy cases lasted for years and certain parties were able to manipulate policy uncertainty to extract rents in the form of APR deviations. Now, forty years later, the U.S. bankruptcy landscape has settled into equilibrium. The existence of well-defined and predictable bankruptcy rules has led to sophisticated bankruptcy forecasting and planning techniques that, in certain cases, have contracted out formal bankruptcy rules entirely.

In this paper, I present four facts that describe the pre-determined nature of modern-day corporate bankruptcy in the U.S. First, Chapter 11 has subsumed Chapter 7, with over one third of Chapter 11 cases aiming to sell their assets either as going-concerns or through piece-meal liquidation. Building on this, the second fact evaluates the degree to which bankruptcy outcomes deviate from day one objectives. Only 6% of large non-financial firms that file for bankruptcy intend on restructuring but ultimately liquidate, while only 4% of these firms intend on being acquired but ultimately liquidate. The third fact is that pre-packaged bankruptcies and restructuring support agreements are on the rise, and I present further evidence on what takes place prior to bankruptcy and how these actions and events influence the firm's choices entering into bankruptcy. Finally, I show that the determinants

[30]This suggests that judges are probably not the most influential arbiters of bankruptcy outcomes, at least as far as the continuation versus liquidation axis is concerned. Evidence on judges in the sample supports this claim. Appendix Table I shows that the vast majority of judges in the sample oversaw less than five cases, and that only five judges oversaw over 40 cases. Of those "popular" judges, it is hard to discern a clear bias with respect to bankruptcy failure in one direction or another, given that failure is relatively rare.

of failed reorganizations are not identical to those of failed acquisitions.

These findings are bad news for some and good news for others. The job of the empiricist has become more challenging. Managements' goals for the bankruptcy process are hard to observe, yet failing to condition on these objectives can lead to a host of endogeneity issues. For market participants, however, these findings point to a healthy policy solution to a complex set of frictions that arise as firms approach default. Predictable and fast bankruptcy processes promote optimal investment even for firms that are far from distress.

References

[1] Altman, E. I. (1968) "Financial Ratios, Discriminant Analysis and the Prediction of Corporate Bankruptcy", *Journal of Finance*, 23: 589-609.

[2] Atiya, A. F. (2001) "Bankruptcy Prediction for Credit Risk Using Neural Networks: A Survey and New Results", *IEEE Transactions on Neural Networks*, 12(4): 929-935.

[3] Ayotte, K. M. and E. R. Morrison (2009) "Creditor Control and Conflict in Chapter 11", *Journal of Legal Analysis*, 1(2): 511-551.

[4] Baird, D. G. (1986) "The Uneasy Case for Corporate Reorganizations", *The Journal of Legal Studies*, 15(1): 127-147.

[5] Baird, D. G. and R. K. Rasmussen (2002) "The End of Bankruptcy", *Stanford Law Review*, 55: 751-789.

[6] Baird, D. G. and R. K. Rasmussen (2003) "Chapter 11 at Twilight", *Stetson Law Review*, 56: 673-699.

[7] Baird, D. G. and R. K. Rasmussen (2010) "Antibankruptcy", *The Yale Law Journal*, 119(4): 648-699.

[8] Beaver, W. H (1966) "Financial Ratios as Predictors of Failure", *Journal of Accounting Research*, 4: 71-111.

[9] Bebchuk, L. A. (1988) "A New Approach to Corporate Reorganizations", *Harvard Law Review* 101: 775-804.

[10] Bernstein, S., E. Colonnelli, B. C. Iverson, and X. Giroud (2018) "Bankruptcy Spillovers", *Journal of Financial Economics.*

[11] Chang, T. and A. Schoar (2013) "Judge Specific Differences in Chapter 11 and Firm Outcomes", Working Paper, MIT Sloan School of Management.

[12] Eckbo, B. E. and K. S. Thorburn (2009) "Creditor Financing and Overbidding in Bankruptcy Auctions: Theory and Test", *Journal of Corporate Finance*, 15(1): 10-29.

[13] Ellias, J. A. (2016) "Do Activist Investors Constrain Managerial Moral Hazard in Chapter 11? Evidence from Junior Activist Investing", *Journal of Legal Analysis*, 8(2): 493-547.

[14] Gilson, S. C., E. S. Hotchkiss, and M. Osborn (2016) “Cashing Out: The Rise of M&A in Bankruptcy”, Working Paper No. 15-057, Harvard Business School.

[15] Hotchkiss, E. S. and R. M. Mooradian (1997) ”Vulture Investors and the Market for Control of Distressed Firms”, *Journal of Financial Economics*, 43(3): 401-432.

[16] Hotchkiss, E. S., P. Stromberg, and D. C. Smith (2014) “Private Equity and the Resolution of Financial Distress”, ECGI Finance Working Paper No. 331/2012.

[17] Iverson, B. C. (2017) “Get in Line: Chapter 11 Restructuring in Crowded Bankruptcy Courts”, *Management Science*, 64(11).

[18] Mooradian, R. and E. S. Hotchkiss (1998) “Acquisitions as a Means of Restructuring Firms in Chapter 11”, *Journal of Financial Intermediation*, 7(3): 240-262.

[19] Jiang, W., K. Li, and W. Wang (2012) “Hedge Funds and Chapter 11”, *Journal of Finance*, 67(2): 513-559.

[20] Meier, J. and H. Servaes (2014) “Distressed Acquisitions”, CEPR Discussion Paper No. DP 10093.

[21] Ohlson, J. A. (1980) “Financial Ratios and the Probabilistic Prediction of Bankruptcy”, *Journal of Accounting Research*, 18: 109-131.

[22] Shumway, T. (2001) “Forecasting Bankruptcy More Accurately: A Simple Hazard Model”, *Journal of Business*, 74: 101-124.

[23] Skeel, D. A. (1993) “Markets, Courts, and the Brave New World of Bankruptcy Theory”, *Wisconsin Law Review*, p. 465.

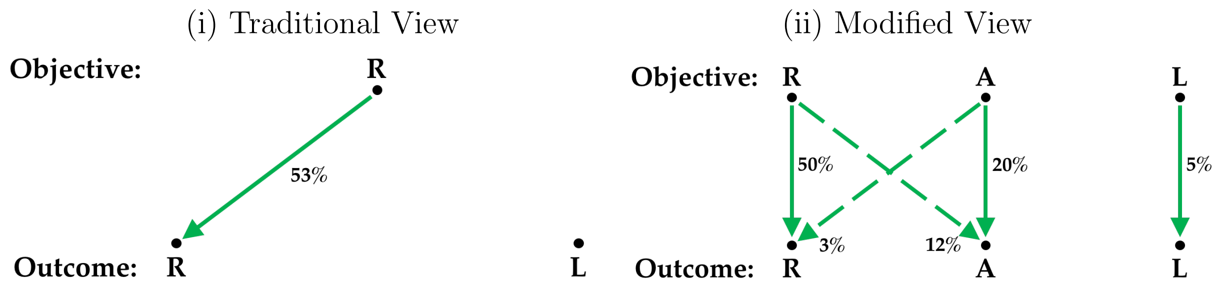
[24] Zmijewski, M. E. (1984) “Methodological Issues Related to the Estimation of Financial Distress Prediction Models”, *Journal of Accounting Research*, 22: 59-82.

Figure I: Chapter 11 Successes and Failures

This figure illustrates the difference between the traditional view of Chapter 11 success and failure, from the perspective of management, relative to the modified view. Under the traditional view, firms enter into Chapter 11 with the objective of reorganizing, and can either end up reorganizing or liquidating. In the modified view, firms may also be acquired, and can enter into Chapter 11 with any objective in mind. Empirical proportions of successful cases under each view are demonstrated in panel (a) while proportions of failed cases under each view are demonstrated in panel (b).

(a) Successes

(i) Traditional View (ii) Modified View



(b) Failures

(i) Traditional View (ii) Modified View

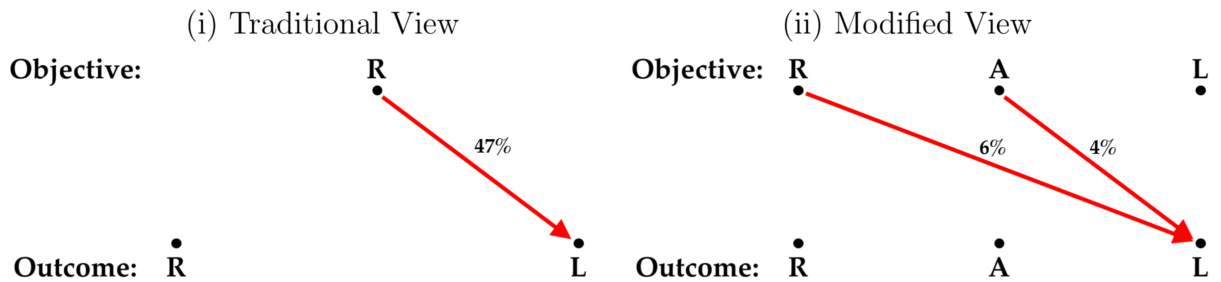


Figure II: Chapter 11 vs. Chapter 7
This figure depicts trends in U.S. bankruptcy Chapter 11 vs. Chapter 7 choices for all non-financial cases involving over $100 million in assets filed between 2004 and 2017. Data are from New Generation Research.

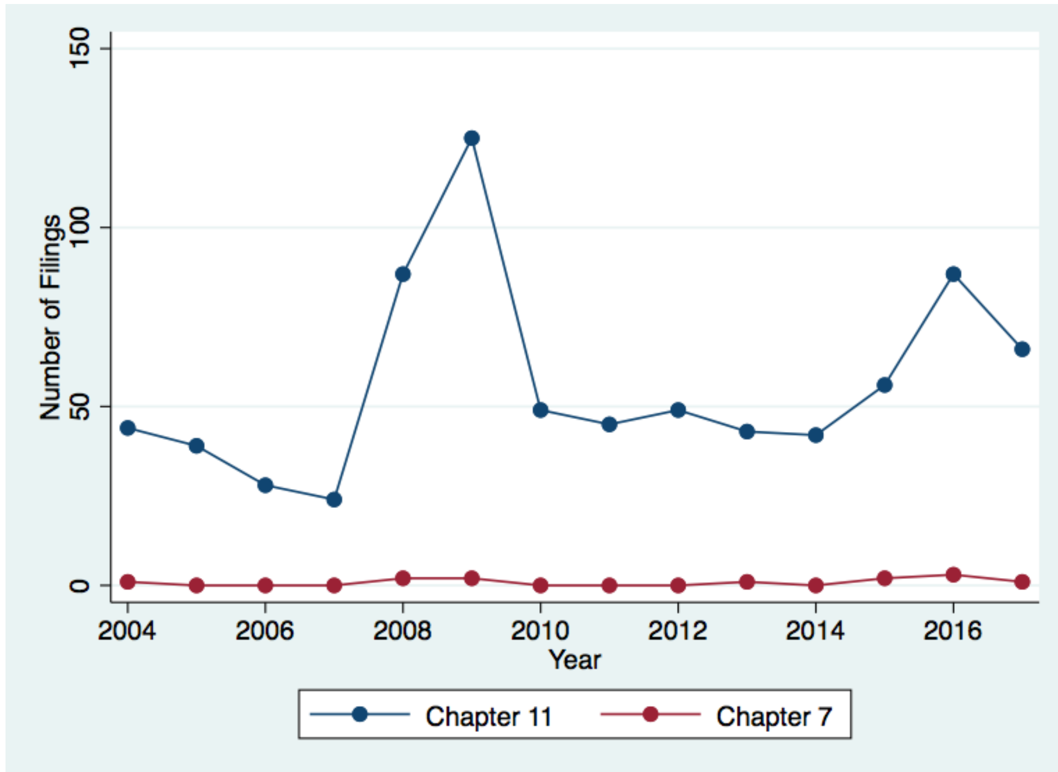
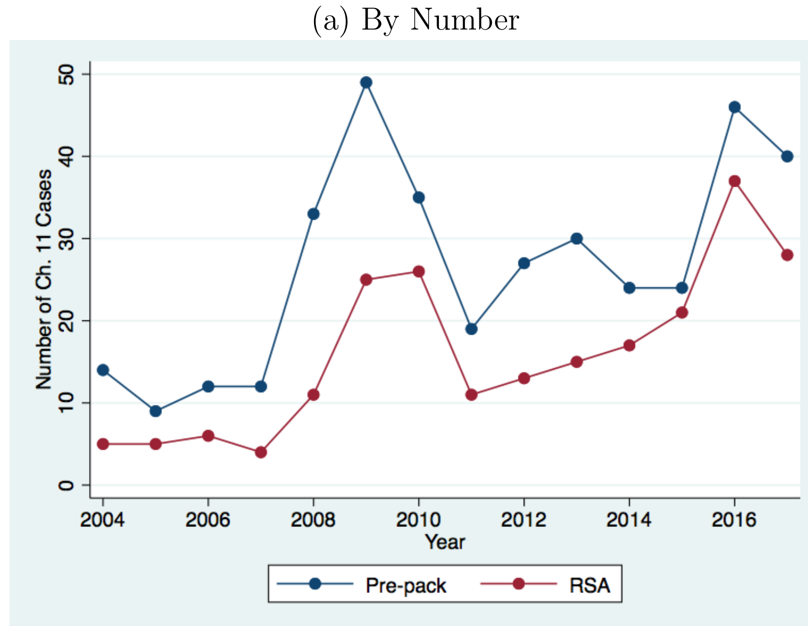


Figure III: Pre-packaged Plans and Restructuring Support Agreements
This figure depicts trends in pre-packaged bankruptcy and restructuring support agreements as defined in Section 2. Included in *Pre-pack* are firms that filed a motion to sell substantially all assets of the firm within the first 30 days of the case.

(a) By Number



(b) By Proportion

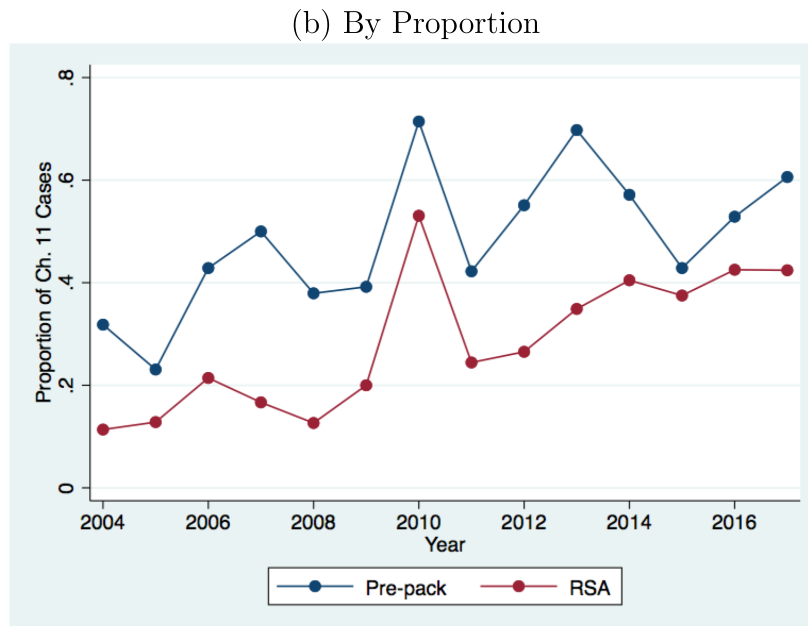
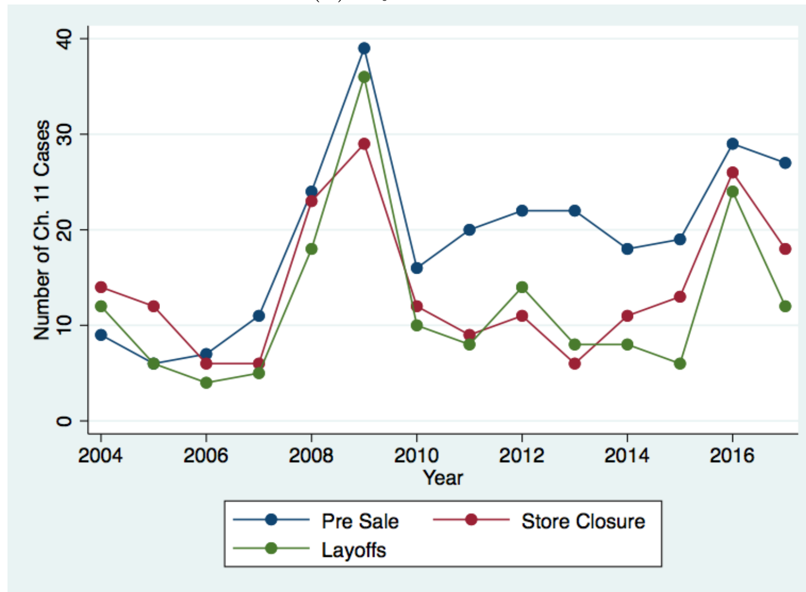


Figure IV: Downsizing Efforts Prior to Bankruptcy
This figure depicts trends in managements' efforts to downsize operations prior to filing for Chapter 11. Downsizing is measured in three ways. *Pre-sale* equals one if attempts were made to sell all or part of the firm prior to filing. *Store Closure* equals one if stores were closed prior to filing. *Layoffs* equals one if employees were laid off prior to filing. All variables are constructed using information from First-Day affidavits, as described in Section 2.

(a) By Number



(b) By Proportion

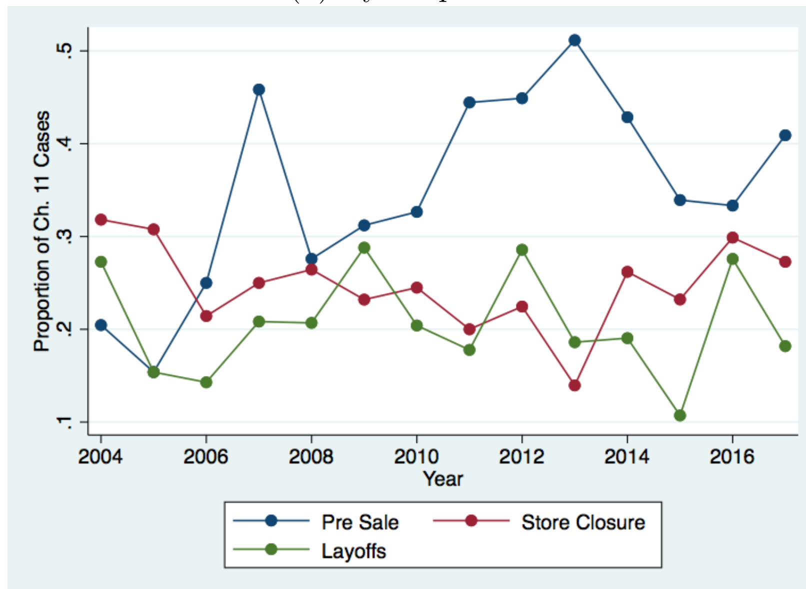
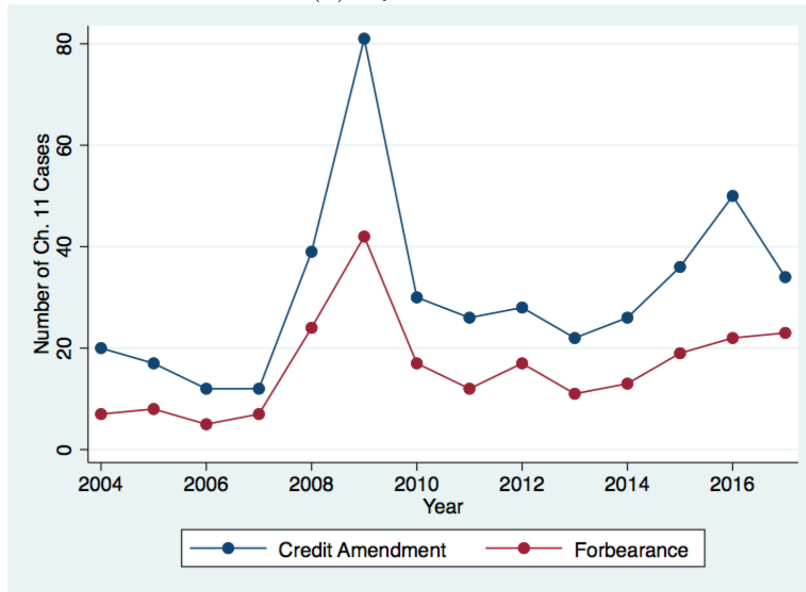


Figure V: Creditor Negotiations Prior to Bankruptcy
This figure depicts trends in negotiations with creditors prior to filing for Chapter 11. Creditor negotiations are measured in two ways. *Credit Amendment* equals one if a credit agreement was amended prior to filing. *Forbearance* equals one if the firm entered into a forbearance period prior to filing. Both variables are constructed using information from First-Day affidavits, as described in Section 2.

(a) By Number



(b) By Proportion

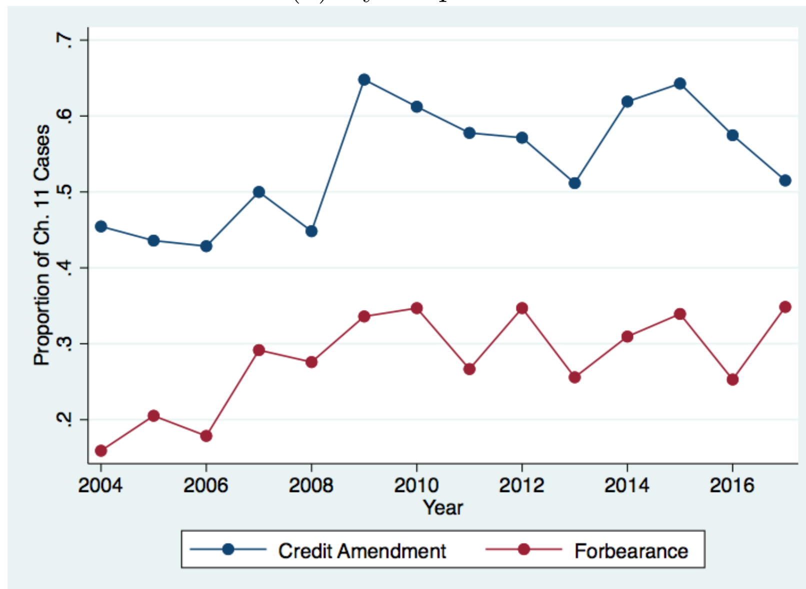
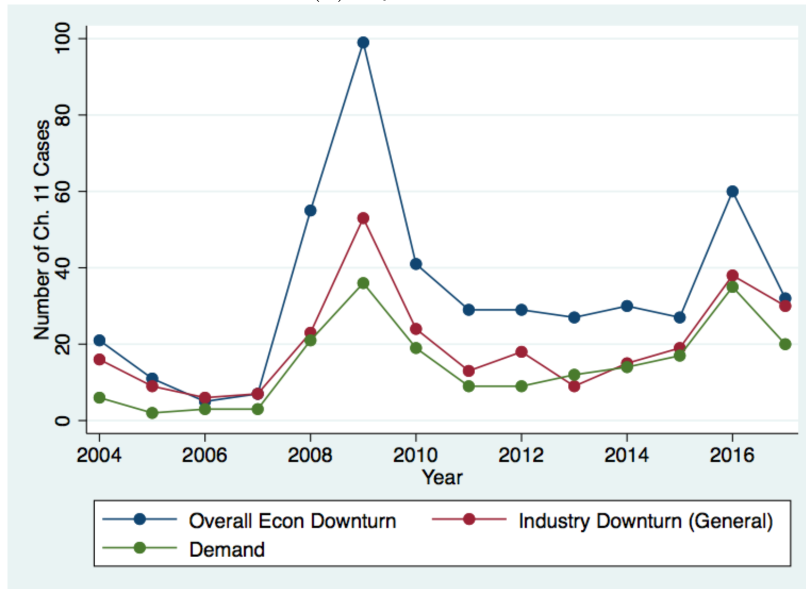


Figure VI: Economic Causes

This figure depicts trends in the causes of bankruptcy related to economic distress according to management. *Overall Econ Downturn* equals one if the cause is attributed to broad market or economic conditions. *Industry Downturn (General)* equals one if the cause is attributed to an industry-specific downturn. *Demand* equals one if the cause is attributed to weakness in demand. All variables are constructed using information from First-Day affidavits, as described in Section 2.

(a) By Number



(b) By Proportion

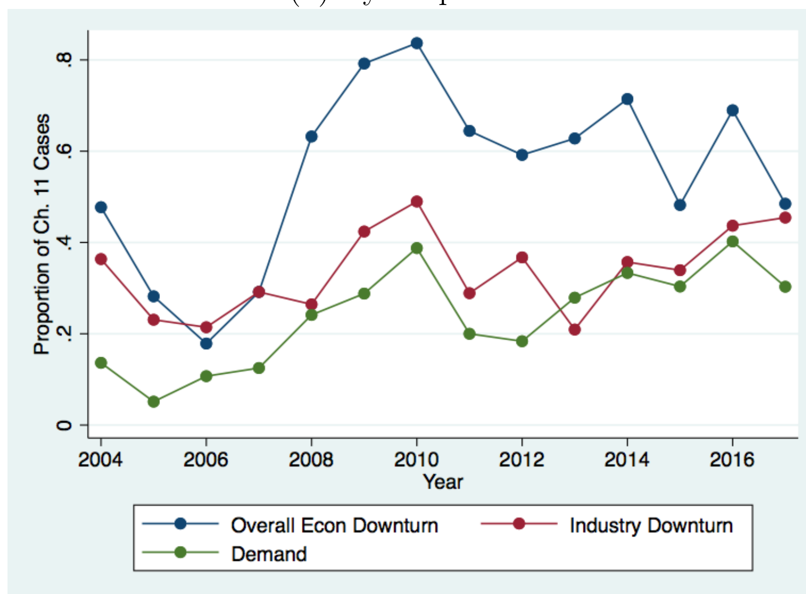
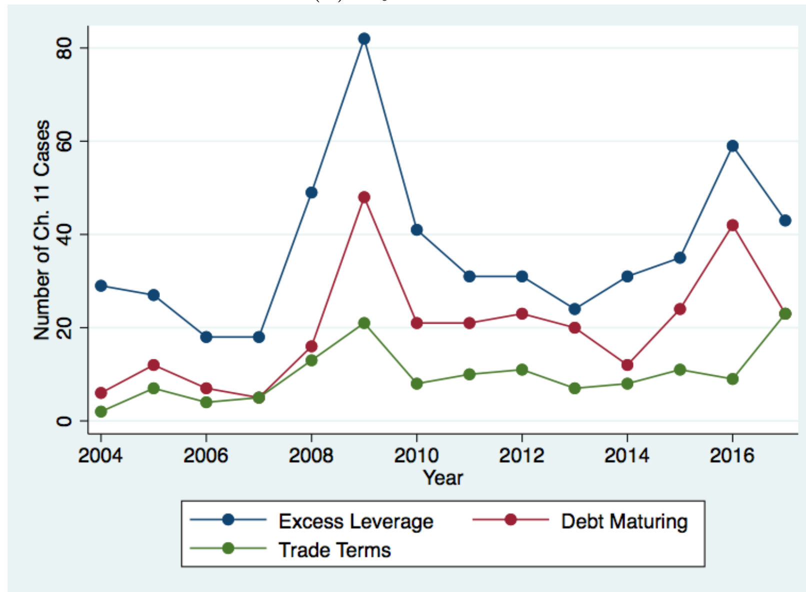


Figure VII: Financial Causes
This figure depicts trends in the causes of bankruptcy related to financial distress according to management. *Excess Leverage* equals one if the cause is attributed excess leverage. *Debt Maturing* equals one if the cause is attributed to a debt contract that is maturing. *Trade Terms* equals one if the cause is attributed to unfavorable terms in trade credit agreements. All variables are constructed using information from First-Day affidavits, as described in Section 2.

(a) By Number



(b) By Proportion

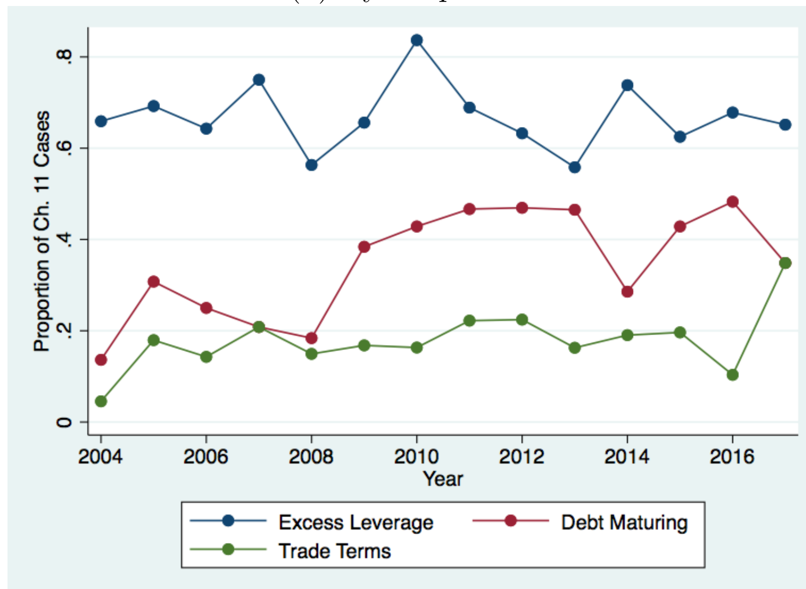
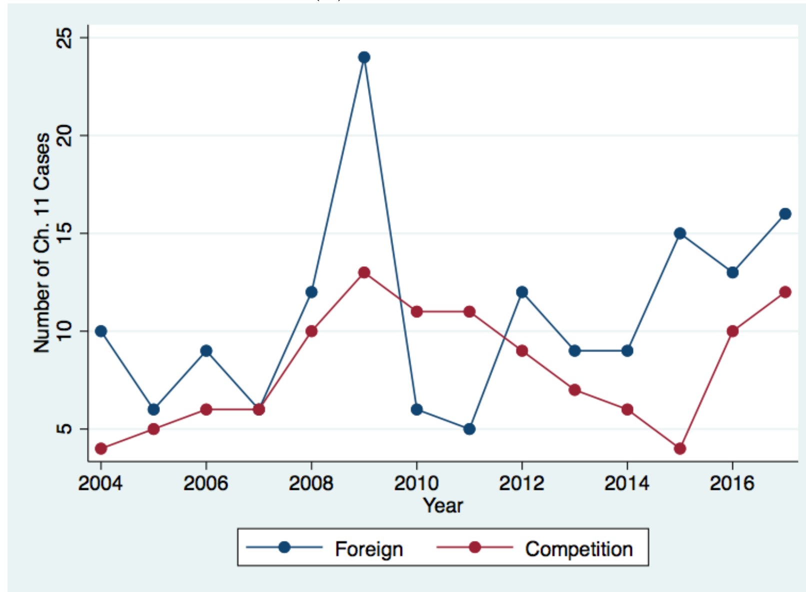


Figure VIII: Competition Causes
This figure depicts trends in the causes of bankruptcy related to competition according to management. *Foreign* equals one if the causes is attributed to foreign competition. *Competition* equals one if the cause is attributed to any other form of competition. Both variables are constructed using information from First-Day affidavits, as described in Section 2.

(a) By Number



(b) By Proportion

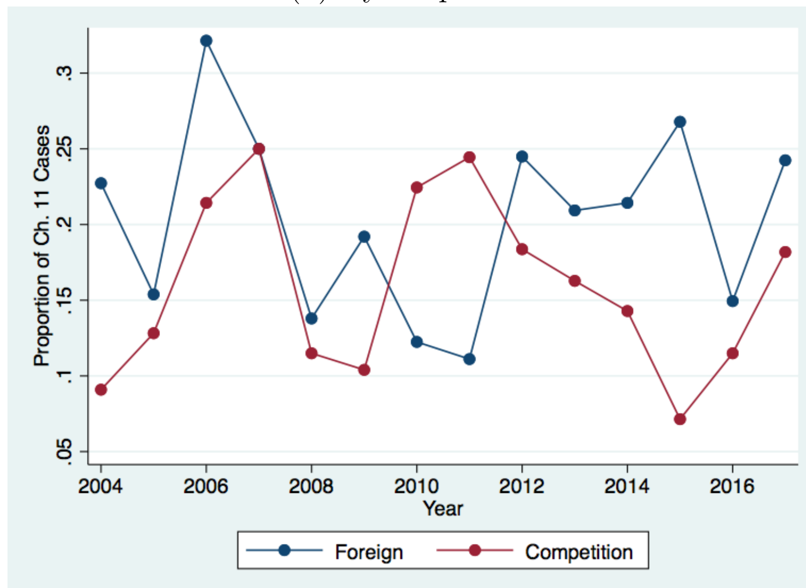
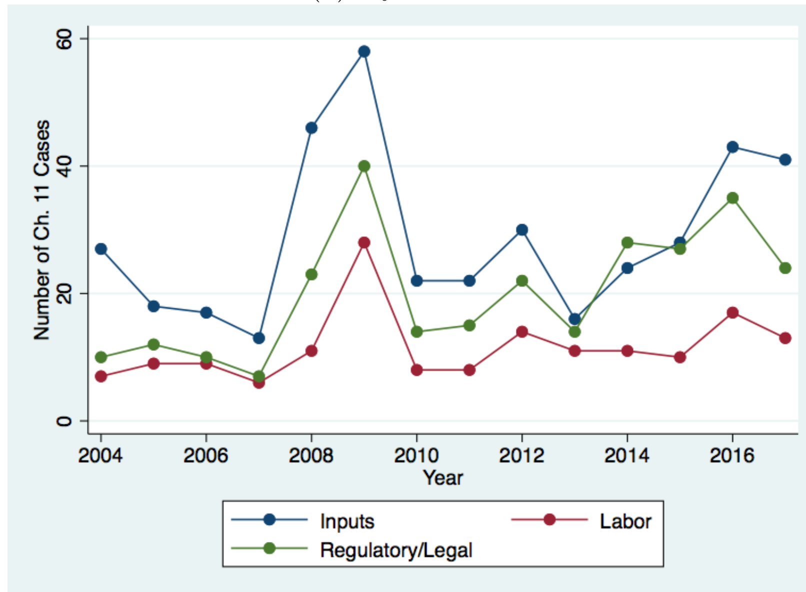


Figure IX: Cost Causes
This figure depicts trends in the causes of bankruptcy related to high costs according to management. *Inputs* equals one if the cause is attributed to input costs. *Labor* equals one if the cause is attributed to labor or pension costs. *Regulatory/Legal* equals one if the cause is attributed to costs related to regulations, litigation, or policy. All variables are constructed using information from First-Day affidavits, as described in Section 2.

(a) By Number



(b) By Proportion

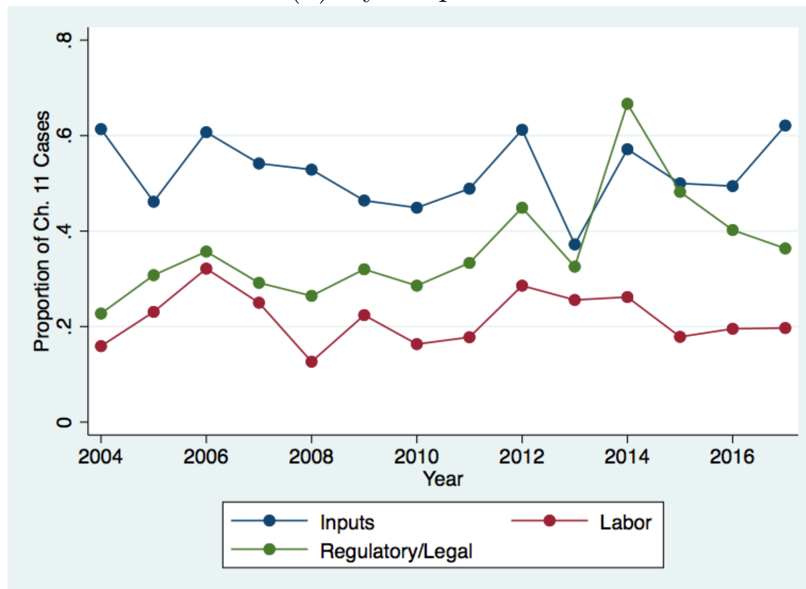


Table I
Summary Statistics

These tables present summary statistics on binary variables (Panel A) and continuous variables (Panel B) for all 784 non-financial firms with over $100 million in assets that filed for Chapter 11 between 2004 and 2017. A case is considered a bankruptcy failure if it resulted in unanticipated liquidation, and a success otherwise.

Panel A: Binary Variables

	Total	Success		Failure	
	N	N	% Obs.	N	% Obs.
Court					
Delaware	374	336	89.8%	38	10.2%
New York Southern	154	143	92.9%	11	7.1%
Texas Southern	44	41	93.2%	3	6.8%
Texas Northern	18	16	88.9%	2	11.1%
Virginia Eastern	15	12	80.0%	3	20.0%
Other	179	154	86.0%	25	14.0%
Industry					
Transportation	86	76	88.4%	10	11.6%
Energy	133	123	92.5%	10	7.5%
Entertainment	44	40	90.1%	4	9.9%
Food	47	44	93.6%	3	6.4%
Manufacturing	51	45	88.2%	6	11.8%
Materials	131	123	93.9%	8	6.1%
Retail	97	75	78.9%	20	21.1%
Tech	88	76	86.4%	12	13.6%
Other	107	100	93.5%	7	6.5%
Sophistication					
Pre-plan	223	222	99.6%	1	0.4%
RSA	224	221	98.7%	3	1.3%
Pre-sale	151	137	90.7%	14	9.3%
Hedge Fund	368	345	93.8%	23	6.2%
Ch. 22+	76	65	85.5%	11	14.5%

Table I, Continued
Summary Statistics

Panel A: Binary Variables, Continued

	Total	Success		Failure	
	N	N	% Obs.	N	% Obs.
Pre-planning					
Sale Prior	269	246	91.4%	23	8.6%
Closures	196	172	87.8%	24	12.2%
Layoffs	171	153	89.5%	18	10.5%
Forbearance	227	208	91.6%	19	8.4%
Amendments	433	402	92.8%	31	7.2%
Causes					
Recession	473	434	91.8%	39	8.2%
Overleverage	518	478	92.3%	40	7.7%
Input Costs	405	364	89.9%	41	10.1%
Regulatory/Legal	281	256	91.1%	25	8.9%

Panel B: Continuous Variables

	Success				Failure			
	N	Mean	Med.	S.D.	N	Mean	Med.	S.D.
Employees	666	4,915	1,334	15,190	77	4,474	1,500	9,833
Assets ($Millions)	676	1,410	375	4,860	80	640	265	1,340
Leverage (L/A)	562	1.35	1.02	1.09	55	1.06	0.84	0.79

Table II
Determinants of Chapter 11 Filing Formats

This table explores the determinants of Chapter 11 filing formats. In Columns (1) and (2), the dependent variable *Pre-plan* equals one if the firm filed a Chapter 11 plan within the first 30 days of the case, and zero otherwise. In Columns (3) and (4), the dependent variable *RSA* equals one if the firm entered into bankruptcy with a restructuring support agreement, and zero otherwise. In Columns (5) and (6), the dependent variable *Pre-sale* equals one if the firm filed a motion to sell substantially all assets of the firm within the first 30 days of the case, and zero otherwise. All variables are described in Section 2 and the empirical methodology is described in Section 3.

	(1) Pre-plan	(2) Pre-plan	(3) RSA	(4) RSA	(5) Pre-sale	(6) Pre-sale
Sale Prior	-0.145**	-0.182***	-0.116***	-0.137***	0.389***	0.390***
	(0.0572)	(0.0665)	(0.0333)	(0.0312)	(0.0329)	(0.0291)
Closures	-0.0746***	-0.121***	-0.0659**	-0.0587**	-0.0365**	-0.0466**
	(0.0228)	(0.0278)	(0.0320)	(0.0290)	(0.0158)	(0.0207)
Layoffs	-0.0146	-0.000130	0.0231	0.0471	-0.0124	-0.00761
	(0.0352)	(0.0358)	(0.0240)	(0.0285)	(0.0260)	(0.0291)
Forbearance	0.107**	0.0967*	0.115***	0.104**	0.0313*	0.0286
	(0.0446)	(0.0508)	(0.0384)	(0.0424)	(0.0174)	(0.0248)
Amendments	0.0419	0.0178	0.0539**	0.0269	0.00862	0.0133
	(0.0355)	(0.0421)	(0.0236)	(0.0357)	(0.0173)	(0.0176)
Recession	0.100***	0.0833**	0.114***	0.111***	-0.0727*	-0.0474
	(0.0294)	(0.0365)	(0.0169)	(0.0194)	(0.0401)	(0.0386)
Overleverage	0.0969***	0.0933***	0.123***	0.0961***	-0.0263	-0.0282*
	(0.0323)	(0.0305)	(0.0261)	(0.0275)	(0.0171)	(0.0161)
Input Costs	-0.00463	-0.0131	-0.0138	-0.0374	-0.00185	0.0122
	(0.0151)	(0.0159)	(0.0140)	(0.0252)	(0.0241)	(0.0322)
Regulatory/Legal	-0.0355	-0.0262	-0.00115	0.0119	0.0129	0.0370
	(0.0261)	(0.0287)	(0.0386)	(0.0379)	(0.0270)	(0.0379)
Ch. 22+	-0.0806*	-0.0722	-0.0906***	-0.0551*	-0.0469	-0.0311
	(0.0426)	(0.0668)	(0.0217)	(0.0287)	(0.0445)	(0.0391)
Hedge Fund	0.122***	0.136***	0.160***	0.182***	0.00213	0.0114
	(0.0366)	(0.0352)	(0.0274)	(0.0283)	(0.0160)	(0.0141)
Period FEs	Y	Y	Y	Y	Y	Y
Industry FEs	Y	Y	Y	Y	Y	Y
Size/Fin. Controls	N	Y	N	Y	N	Y
N	784	599	784	599	784	599
Adj. R^2	0.119	0.132	0.172	0.185	0.236	0.274

Standard errors in parentheses
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table III
Determinants of Chapter 11 Filing Objectives

This table explores the determinants of Chapter 11 filing objectives. In Columns (1) and (2), the dependent variable *Reorg.* equals one if the firm's Chapter 11 objective was to reorganize, and zero otherwise. In Columns (3) and (4), the dependent variable *Acq.* equals one if the firm's Chapter 11 objective was to be acquired, and zero otherwise. In Columns (5) and (6), the dependent variable *Liq.* equals one if the firm's Chapter 11 objective was to liquidate, and zero otherwise. All variables are described in Section 2 and the empirical methodology is described in Section 3.

	(1)	(2)	(3)	(4)	(5)	(6)
	Reorg.	Reorg.	Acq.	Acq.	Liq.	Liq.
Sale Prior	-0.459***	-0.450***	0.520***	0.506***	0.00258	-0.0197*
	(0.0366)	(0.0454)	(0.0368)	(0.0409)	(0.00842)	(0.0102)
Closures	-0.0584**	-0.0314	0.0155	-0.00921	0.0444*	0.0309*
	(0.0229)	(0.0267)	(0.0212)	(0.0326)	(0.0250)	(0.0179)
Layoffs	-0.00713	-0.0160	0.0517*	0.0658**	-0.00412	-0.00556
	(0.0185)	(0.0201)	(0.0277)	(0.0256)	(0.0150)	(0.0196)
Forbearance	-0.0497**	-0.0192	0.0247	0.000617	-0.0108	-0.0249***
	(0.0206)	(0.0209)	(0.0200)	(0.0199)	(0.0104)	(0.00857)
Amendments	0.0266	0.0422	-0.0127	-0.0268	-0.0127	0.00516
	(0.0203)	(0.0256)	(0.0195)	(0.0225)	(0.0157)	(0.0191)
Recession	0.0572**	0.00923	-0.0238	0.0204	-0.0250***	-0.0143
	(0.0239)	(0.0240)	(0.0254)	(0.0296)	(0.00934)	(0.0161)
Overleverage	0.101***	0.0657***	-0.0962***	-0.0691***	-0.0146	-0.0124
	(0.0180)	(0.0197)	(0.0219)	(0.0220)	(0.0195)	(0.0220)
Input Costs	-0.0121	-0.0206	0.0290	0.0271	-0.00491	0.00177
	(0.0184)	(0.0171)	(0.0274)	(0.0272)	(0.0134)	(0.0142)
Regulatory/Legal	-0.00156	-0.00395	0.0160	0.0215	-0.0246*	-0.0230
	(0.0163)	(0.0247)	(0.0163)	(0.0247)	(0.0125)	(0.0161)
Ch 22+	-0.0116	0.0235	-0.0526*	-0.0287	0.0597***	0.00857
	(0.0206)	(0.0161)	(0.0263)	(0.0308)	(0.0192)	(0.00857)
Hedge Fund	0.0555***	0.0644***	-0.0412**	-0.0356**	-0.0276**	-0.0251***
	(0.0165)	(0.0160)	(0.0178)	(0.0152)	(0.0114)	(0.00862)
Period FEs	Y	Y	Y	Y	Y	Y
Industry FEs	Y	Y	Y	Y	Y	Y
Size/Fin. Controls	N	Y	N	Y	N	Y
N	784	599	784	599	784	599
Adj. R^2	0.272	0.338	0.303	0.351	0.052	0.066

Standard errors in parentheses
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table IV
Determinants of Chapter 11 Venues

This table explores the determinants of filing for Chapter 11 in one of the two most popular court venues: Delaware or the Southern District of New York. In Columns (1) and (2), the dependent variable *DE* equals one if the firm filed in Delaware, and zero otherwise. In Columns (3) and (4), the dependent variable *NYS* equals one if the firm filed in the Southern District of New York, and zero otherwise. All variables are described in Section 2 and the empirical methodology is described in Section 3.

	(1) DE	(2) DE	(3) NYS	(4) NYS
Sale Prior	0.150***	0.117***	-0.0760	-0.0279
	(0.0237)	(0.0249)	(0.0496)	(0.0267)
Closures	0.0575**	0.0472	-0.000664	-0.0254
	(0.0255)	(0.0334)	(0.0176)	(0.0202)
Layoffs	-0.0268	-0.00329	-0.0341	-0.0456
	(0.0324)	(0.0340)	(0.0230)	(0.0336)
Forbearance	0.0616***	0.0401*	-0.00770	0.0158
	(0.0184)	(0.0210)	(0.0134)	(0.0181)
Amendments	0.0359*	0.0323	0.00190	-0.0144
	(0.0204)	(0.0248)	(0.0108)	(0.0171)
Recession	-0.000390	0.00176	0.0773	0.0712
	(0.0397)	(0.0397)	(0.0540)	(0.0532)
Overleverage	-0.0123	-0.000503	0.0327	0.0497
	(0.0299)	(0.0470)	(0.0227)	(0.0365)
Input Costs	-0.0388*	-0.0281	0.00592	-0.00127
	(0.0213)	(0.0252)	(0.0120)	(0.0189)
Regulatory/Legal	0.0213	0.0302	-0.0147	-0.0242
	(0.0172)	(0.0194)	(0.0131)	(0.0171)
Ch 22+	0.00103	0.000150	0.0326	0.0291
	(0.0445)	(0.0487)	(0.0266)	(0.0331)
Hedge Fund	0.0251	0.000241	0.0829	0.0786
	(0.0517)	(0.0479)	(0.0691)	(0.0611)
Period FEs	Y	Y	Y	Y
Industry FEs	Y	Y	Y	Y
Size/Fin. Controls	N	Y	N	Y
N	784	599	784	599
Adj. R^2	0.062	0.075	0.066	0.113

Standard errors in parentheses
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table V
General Determinants of Chapter 11 Failure

This table explores the determinants of Chapter 11 failure, defined as unanticipated liquidation. In Columns (1) and (2), the dependent variable $R \rightarrow L$ equals one if the firm intended to restructure but ultimately liquidated, and zero otherwise. In Columns (3) and (4), the dependent variable $A \rightarrow L$ equals one if the firm intended to be acquired but ultimately liquidated, and zero otherwise. *Other Ind. FEs* refers to industry fixed effects for industries aside from transportation, retail, and technology, whose coefficients are presented in the table. All variables are described in Section 2 and the empirical methodology is described in Section 3.

	(1)	(2)	(3)	(4)
	R → L	R → L	A → L	A → L
DE	-0.0159	-0.0210	-0.0606	-0.0532
	(0.0214)	(0.0262)	(0.0410)	(0.0504)
NYS	-0.0236	-0.0475*	-0.201***	-0.191***
	(0.0226)	(0.0273)	(0.0440)	(0.0628)
Ch. 22+	0.0415	0.0389	0.0681	0.0294
	(0.0350)	(0.0318)	(0.0605)	(0.0543)
Pre-pack	-0.133***	-0.115***	-0.168***	-0.148***
	(0.0169)	(0.0272)	(0.0320)	(0.0314)
$\mathbf{1}_{2004-7}$	-0.0319	-0.0244	-0.0905	-0.0398
	(0.0267)	(0.0274)	(0.0594)	(0.0809)
$\mathbf{1}_{2008-9}$	0.0510	0.0475	-0.0377	0.00672
	(0.0326)	(0.0293)	(0.0517)	(0.0674)
$\mathbf{1}_{2010-13}$	0.0342	0.0651***	-0.136***	-0.0558
	(0.0227)	(0.0190)	(0.0337)	(0.0548)
Transport	-0.0106	0.0369	0.0968	0.275***
	(0.0397)	(0.0483)	(0.0598)	(0.0574)
Retail	0.171***	0.214***	0.192***	0.283***
	(0.0385)	(0.0531)	(0.0553)	(0.0266)
Tech	0.0571	0.104**	0.0366	0.151**
	(0.0682)	(0.0423)	(0.0650)	(0.0619)
ln(Empl.)		-0.00359		-0.0000736
		(0.0107)		(0.0132)
ln(Assets)		-0.0195*		-0.0186
		(0.0114)		(0.0151)
Leverage		-0.00638		-0.0171
		(0.0132)		(0.0116)
Other Ind. FEs	Y	Y	Y	Y
N	552	434	242	173
Adj. R^2	0.074	0.084	0.120	0.094

Standard errors in parentheses
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table VI

Determinants of Chapter 11 Failure: Pre-Bankruptcy Activity

This table explores the determinants of Chapter 11 failure, defined as unanticipated liquidation. In Columns (1) and (2), the dependent variable $R \rightarrow L$ equals one if the firm intended to restructure but ultimately liquidated, and zero otherwise. In Columns (3) and (4), the dependent variable $A \rightarrow L$ equals one if the firm intended to be acquired but ultimately liquidated, and zero otherwise. All variables are described in Section 2 and the empirical methodology is described in Section 3.

	(1) R → L	(2) R → L	(3) A → L	(4) A → L
Sale Prior	-0.0264	-0.0265*	-0.0573	0.0182
	(0.0172)	(0.0144)	(0.0506)	(0.0830)
Closures	-0.0729***	-0.0737***	0.0862*	0.0602
	(0.0124)	(0.0157)	(0.0505)	(0.0505)
Layoffs	0.0269	0.0196	-0.0711	-0.0744
	(0.0266)	(0.0192)	(0.0509)	(0.0459)
Forbearance	0.00177	0.0162	0.0182	0.000379
	(0.0308)	(0.0317)	(0.0349)	(0.0431)
Amendments	-0.0600***	-0.0509*	-0.0124	-0.0469
	(0.0208)	(0.0269)	(0.0369)	(0.0366)
Recession	-0.0149	0.0104	-0.107***	-0.0567
	(0.0182)	(0.0215)	(0.0286)	(0.0406)
Overleverage	-0.0470***	-0.0571**	-0.0461	-0.0170
	(0.0141)	(0.0244)	(0.0332)	(0.0389)
Input Costs	-0.0257	-0.0410	0.0893**	0.0627
	(0.0204)	(0.0294)	(0.0338)	(0.0428)
Regulatory/Legal	-0.00978	0.00112	-0.0144	0.0141
	(0.0240)	(0.0248)	(0.0262)	(0.0386)
Pre-pack	-0.121***	-0.113***	-0.148***	-0.145***
	(0.0196)	(0.0323)	(0.0320)	(0.0417)
Ch. 22+	0.0494	0.0465	0.0758*	0.0197
	(0.0358)	(0.0441)	(0.0412)	(0.0506)
Period FEs	Y	Y	Y	Y
Industry FEs	Y	Y	Y	Y
DE/NYS FEs	Y	Y	Y	Y
Size/Fin. Controls	N	Y	N	Y
N	552	434	242	173
Adj. R^2	0.100	0.109	0.148	0.073

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table VII

Determinants of Chapter 11 Failure: Hedge Funds

This table explores the role of hedge funds in Chapter 11 failure, defined as unanticipated liquidation. In Columns (1) through (3), the dependent variable $R \rightarrow L$ equals one if the firm intended to restructure but ultimately liquidated, and zero otherwise. In Columns (4) through (6), the dependent variable $A \rightarrow L$ equals one if the firm intended to be acquired but ultimately liquidated, and zero otherwise. *Pre-Ch. 11 Controls* refers to the pre-bankruptcy restructuring and negotiation efforts presented in Table VI. All variables are described in Section 2 and the empirical methodology is described in Section 3.

	(1) R → L	(2) R → L	(3) R → L	(4) A → L	(5) A → L	(6) A → L
Hedge Fund	-0.0721***	-0.0568***	-0.0546***	0.00107	-0.00109	0.00217
	(0.0230)	(0.0203)	(0.0136)	(0.0343)	(0.0400)	(0.0519)
Pre-pack	-0.121***	-0.112***	-0.104***	-0.168***	-0.148***	-0.146***
	(0.0211)	(0.0224)	(0.0337)	(0.0324)	(0.0314)	(0.0404)
Ch. 22+	0.0427	0.0501	0.0488	0.0678	0.0760	0.0192
	(0.0329)	(0.0340)	(0.0442)	(0.0678)	(0.0463)	(0.0515)
Period FEs	Y	Y	Y	Y	Y	Y
Industry FEs	Y	Y	Y	Y	Y	Y
DE/NYS FEs	Y	Y	Y	Y	Y	Y
Pre-Ch. 11 Controls	N	Y	Y	N	Y	Y
Size/Fin. Controls	N	N	Y	N	N	Y
N	552	552	434	242	242	173
Adj. R^2	0.088	0.108	0.117	0.116	0.144	0.066

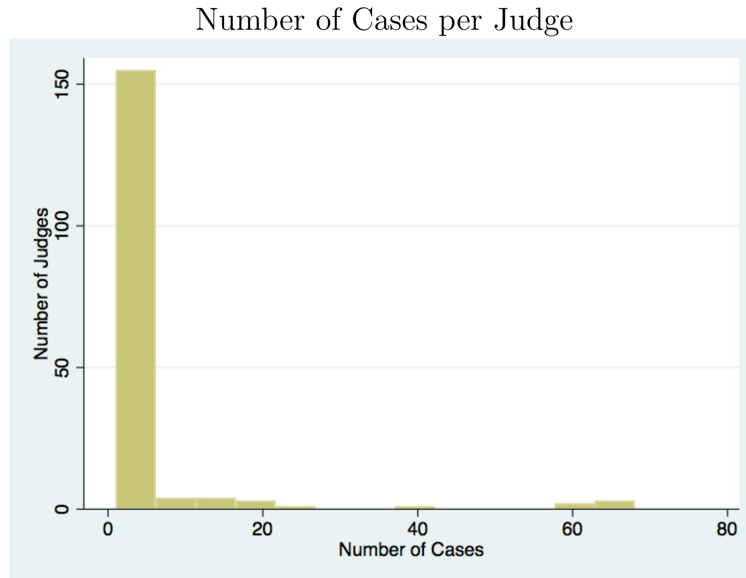
Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Appendix I: Judge Details

This figure depicts the number of cases per judge, where the horizontal axis represents case number bins and the vertical axis represents the number of judges in the sample who oversaw each bin's number of cases.

Number of Cases per Judge



This table provides court, case load, and frequency values by type of failure for the five judges who presided over at least forty cases in the sample.

Judge Name	Court	Total Cases	R → L	A → L
Kevin Carey	DE	68	3	2
Kevin Gross	DE	64	5	2
Mary Walrath	DE	64	5	3
Brendan Shannon	DE	58	2	8
Christopher Sontchi	DE	58	2	3

Online Appendix A

Descriptions of Failed (R → L) Restructurings from First-Day Affidavits

This appendix provides a description of all firms that entered Chapter 11 intending to restructure but exited Chapter 11 in liquidation. For each case, the first paragraph describes the firm's operations while the second paragraph describes the reason that the firm entered Chapter 11. All text was sourced from First Day Affidavits or Motions.

Equity Media Holdings (ARE 08-17646)
The Debtor owns and operates television stations across the United States. The Debtor has built and aggregated a total of 120 full and low power permits, licenses and applications that it owns or has contracts to acquire. The Debtor employs a total of 189 employees with the majority of their employees being based at the Little Rock, Arkansas headquarters. The Debtor maintains its corporate headquarters and principal place of business in Little Rock, Arkansas.
During the past year (2008), the Debtor's relationship with its primary lender group has deteriorated, ultimately forcing the filing of this Chapter 11 proceeding.

Escalera Resources (CO 15-22395)
The Debtor is an independent energy company engaged in the exploration, development, production and sale of natural gas and cmde oil, primarily in the Rocky Mountain basins of the western United States. Its core operations are natural gas wells in Wyoming. As of October 31, 2015, the Debtor had 22 employees.
Beginning in the second half of 2014, natural gas and oil commodity prices decreased substantially. As a result of these lower prices and its depleting asset base, The Debtor's cash flow from operations has decreased while its level of indebtedness has increased. The Debtor began to evaluate possible mergers and asset sales. Despite using proceeds from asset sales to pay down debt commitments, the decline in natural gas prices ended the Debtor's plans to make an acquisition and forced them to declare Chapter 11 bankruptcy.

Factory 2-U Stores (DE 04-10111)
The Debtor is a publicly-traded corporation that operates a chain of 243 off-price retail stores in ten (10) states The Debtor sells branded casual apparel, as well as selected domestic and household merchandise. As of the petition date, the Debtor employed 6,005 persons.
Beginning in 2001, the Debtor began to experience falling sales due general economic stagnation. As a result, the Debtor implemented a restructuring plan that involved closing 28 stores. Due to the Debtor's poor financial performances, the bankruptcy filings of other retail firms, and the weak economic environment, the Debtor experienced a tightening of credit terms from its lenders. This led to a deterioration of the Debtor's credit, as it failed to meet stringent credit terms, and eventual declaration of Chapter 11 bankruptcy. The Debtor seeks to utilize Chapter 11 to improve its operations, reduce its cost structure and restructure its financial affairs.

Sharper Image (DE 08-10322)
Sharper Image (Debtor) is a multi-channel specialty retailer that is nationally and internationally renowned as a leading source of new, innovative, high-quality products. Sharper Image operates 184 stores in 38 states and the District of Columbia. Sharper Image had approximately 2,246 employees.
Sharper Image experienced steady sales declines since 2004 with resulting net losses in Fiscal 2005, Fiscal 2006 and Fiscal 2007. One of the company's main products - air purifiers - was subject to safety concerns and a lawsuit, which dropped the debtor's share price. Additionally, the liquidity crunch was exacerbated by the contraction of the company's credit facilities. Sharper Image believes it is in the best interests of all stakeholders to commence a chapter 11 case. Chapter 11 will enhance Sharper Image's ability to effectively deal with the nonproductive stores, reject lease obligations that are not in the best interests of Sharper Image, and apply the provisions of chapter 11 to maximize the value of its estate.

Linens 'n Things (DE 08-10832)
The debtor was incorporated in September 1996 as a wholly-owned subsidiary of CVS Corporation, and

completed a public offering of its common stock in 1996. The Debtor comprises North America's second largest specialty retailer of home textiles, housewares and decorative home accessories. As of December 31, 2007, the Debtor employed approximately 17,500 people and operated 589 retail stores in 47 states in the United States and in 7 Canadian provinces. The debtor is one of the largest purchasers of home furnishings in the United States, with a vendor base of approximately 1,000 suppliers.
During the first quarter of 2006, the Debtor instituted a long term turnaround plan designed to bolster sales. Several negative external factors – the tightening of credit facilities, housing market decline and drop in discretionary spending – forced the Debtor to abandon the turnaround plan. The Lenders were supportive of a restructuring plan and agreed to forbear for a limited period from exercising their rights and remedies regarding the non-payment of interest on the Debtor's notes. As economic conditions continued to deteriorate and liquidity continued to tighten, the Debtor filed for bankruptcy as a means to reduce leverage and prune it's retail portfolio. The Debtor has since identified 120 underperforming stores to close.

Mervyn's (DE 08-11586)
The Debtor is a mid-range department store that operates 177 stores in the United States. As of the petition date, the Debtor (Mervyn's) employs more than 18,000 people in California and 6 southwestern states.
During 2008, Mervyn's faced declining sales due to the falling housing market and drop in discretionary spending, this led them to institute a turnaround plan. However, these negative factors impeded Mervyn's ability to pay suppliers and service its debt. The Debtor hired Miller Buckfire in July 2008 and declared Chapter 11 Bankruptcy, after concluding an accelerated search for additional financing. The Debtors believe that the store closing sales are a necessary first step in mitigating the strain on the Debtors' liquidity.

HRP Myrtle Beach Holdings (DE 08-12193)
The Debtor owns and operates Hard Rock Park a 50 acre destination theme park located in Myrtle Beach, South Carolina. The Debtors are not affiliated with Hard Rock Cafe International. The Debtors employ over 2000 full and part-time employees.
The decline of the housing market and increase in energy/gas prices hurt the debtors, as it reduced the discretionary spending of consumers. The Debtor relies on cash from operations and a revolving credit facility to maintain its business. However, the freezing of the credit markets resulted in the Debtor being unable to increase the size of its revolver, as planned. This, combined with the lower cash from operations, resulted in a liquidity crisis for the park. The Debtors believe that the filing of these cases will provide them with an opportunity to restructure their debt and develop their marketing and operational strategies for the Park.

MPC Corp (DE 08-12667)
The Debtors' primary business is providing PC-based products and services to mid-sized businesses, government agencies and educational organizations. The Debtors sell directly to their customers and use a build-to-order manufacturing process. As of October 1,2008, the Debtors employed approximately 900 employees. MPC Corporation is a Colorado corporation that, until November 3,2008, was listed on the NYSE Euronext Exchange (ticker: MPZ) and had 35,244,349 common shares.
In 2007 the Debtor acquired all of the capital stock of Gateway Companies. This expanded their operations to Idaho, South Dakota and Tennessee. As a part of the acquisition, the Debtor entered into a Transition Services Agreement with Gateway. As of the Petition Date, Gateway asserts that it is owed approximately $15 million under the TSA. In April of 2008, the Debtors made the decision to cease manufacturing operations in Tennessee and to outsource a large portion of their manufacturing to a third party provider (Flextronics). As of the Petition Date, Flextronics and certain of its affiliates assert that they are owed over $50 million by the Debtors. The Gateway Acquisition and the outsourcing of manufacturing to Flextronics, combined with current liquidity issues, have impaired the Debtors' ability to operate their businesses.

Nortel Networks (DE 09-10138)
The Debtor, Nortel Companies, is a telecommunications firm based in Canada. The Nortel Companies also include NNL's and NNC's active subsidiaries located in Europe, the Middle East and Africa. At its peak in 2000, the Nortel Companies reported approximately $30 billion of annual revenue, employed nearly 93,000 employees, and had a market capitalization (for NNC) of over $250 billion. However, the burst of the tech bubble forced the Debtor to enter into a series of strategic restructurings in the following years. A major

part of this restructuring was the Debtor's pivot from traditional supplier of telecommunications to providing hardware and software solutions. It was also discovered that there was a lack of financial oversight at the company, which resulted in the restatement of prior financial statements and a $575 million settlement with the government.
In the years prior to filing, numerous economic factors have resulted in the Debtor's costs outweighing its operating cashflows. Additionally, after its restatement of financial statements, numerous credit agencies downgraded the Debtor's credit, thereby restricting its access to capital markets. The Debtor has determined that its highly leveraged position and declining operating model requires relief under Chapter 11.

Qimonda North America (DE 09-10589)
The Debtors are a part of an international memory chip company that designs, develops, manufactures, markets and sells memory products. Although the Debtor is owned by a German parent (''The Global Company"), these proceedings involve only U.S. affiliates. The Global Company's customers include the world's largest suppliers of computers and electronic devices – including HP, Dell, IBM, Sun Microsystems and Sony. As of the Petition Date, the Debtors employed approximately 879 hourly and salaried workers. The Debtors primarily operate out of four facilities located in Cary, North Carolina, Richmond, Virginia, San Jose, California, and Houston, Texas.
Towards the end of March 2007, prices for DRAM products fell precipitously, primarily driven by oversupply and demand weakness. Throughout the market decline, the Global Company sought financing as a consequence of further price declines in the DRAM market. Despite having initially negotiated a 325 million euro funding package, The Global Company ultimately failed to secure the rescue package. On February 3, 2009, the Debtors determined that, due to the Parent company insolvency, which meant Parent was not purchasing output from the Debtor, coupled with a lack of access to cash, the Debtors could no longer fund ongoing operations in Richmond, Virginia and declared bankruptcy.

Ritz Camera (DE 09-10617)
Ritz Camera is tire largest specialty camera and image chain in the United States. As of the date of the filing of the Company's chapter 11 petition (the ''Petition Date"), the Company operates approximately 800 Photo Stores in over 40 states throughout the country. In addition to its Photo Stores, Ritz Camera also operates a chain of 130 boating stores, under the name ''Boater's World Marine Centers". As of February 19, 2009, die Company employed approximately 6,424 people.
The Debtor's decline began in the 2000's, when digital camera technology reached the public. The loss of revenues and profit margins from the diminution in the photo-finishing business proved too much of a burden, coupled with the losses experienced by the Boater's World business in 2008, for Ritz Camera to remain a profitable company under its current structure. Given the Company's internal challenges including unprofitable store leases and Boater's World losses coupled with the overall economic recession, the Company had no choice but to seek relief under chapter 11. The goal of this bankruptcy is to restructure and preserve the business.

Pacific Energy Resources (DE 09-10785)
The Debtors are a group of independent energy companies engaged in the acquisition, development and exploitation of oil and gas properties in the western United States. The Debtors' current oil and gas assets are located offshore near California and principally offshore in Alaska. PERL, which is a Debtor, is a publicly held Delaware corporation that trades on the Toronto Stock Exchange and has 100 employees.
Due to the drastic decline in the price of crude oil in March 2008, the Debtors went into default in several of its credit facilities. The Debtors entered into forbearance agreements with several of its major creditors. However, when these forbearance agreements expired in February 2009, the Debtors were still in financial disarray due to the price of crude. The Secured Lenders sent a letter stating that the Debtors are in default under several of its credit facilities. The Debtors determined that they could no longer operate outside of chapter 11 and commenced these cases on the Petition Date.

Fairchild Corporation (DE 09-10899)
As of the Petition Date, the Debtors' operations are in two distinct divisions: Fairchild Sports and Banner Aerospace each of which has several companies in its group. The parent Debtor, Fairchild, was publicly

traded on the New York Stock Exchange. Fairchild Sports /"Fairchild Sports'") consists of three businesses: Polo Express (''Polo"), Hein Gericke (''HG") and Fairchild Sports USA (''FSUSA"), each concentrating primarily on motorcycle protective apparel, helmets and technical accessories for motorcyclists. Polo is a German company which operates 94 retail shops in Germany and Switzerland.2 HG is also a German company and operates 139 retail shops in five European countries. FSUSA operates, designs and distributes operations in the United States. The Debtors as a whole have experienced annual operational losses for more than ten years.
The Debtor's turnaround efforts began in 2006, when Phoenix Holdings acquired 30.5% of Fairchild common stock and elected its main principal - Mr. Sassower - as Chairman of the Debtor's board and acting CEO. Mr. Sassower implemented turnaround efforts focusing on cutting overhead and securing adequate working capital to Polo's business. Despite the turnaround plan, the financial situation of the debtors has deteriorated. They have been unable to make pension plan payments and have had their real estate development plans blocked. As such, the Debtor has determined that chapter 11 affords them the best possible tool to preserve and realize upon the going-concern value of the Banner entities and the equity ownership in Polo.

Indalex Holdings (DE 09-10982)
The Debtors are the second largest aluminum extruder and the largest independent extruder, in the United States and Canada. The Debtors serve in excess of 3,700 customers worldwide, including a broad spectrum of national, regional and local accounts. The Debtors operations are run principally out of six (6) facilities with the headquarters located in Lincolnshire, Illinois.
The demand for the Debtors' products has declined by approximately 35% since 2006 due to overall changes in general and regional economic conditions, etc. In addition to decreased demand, the aluminum prices have also experienced a nearly 50% decline since July of 2008 which has restricted the Debtors ability to borrow cash and fund operations. This led to a liquidity crisis for the firm, and, eventually, the commencement of chapter 11 proceedings.

Trico Marine Services (DE 10-12653)
The Debtors are headquartered in The Woodlands, Texas and provide subsea services to oil and gas companies. The company operates around the world, including the North Sea, West Africa, Mexico, Brazil, and the Asia Pacific Region. The Debtor's Common Stock is publicly traded on the NASDAQ National Market under the ticker symbol TRMA.
During 2009 and into 2010 there was a significant reduction in the level of operating and capital expenditures in the offshore oil and gas industries, mainly due to the global economic slowdown. On June 17 2010, the Debtor's grace period to make the interest payment on its notes outstanding expired, and it entered into a forbearance agreement with the majority holders of the secured notes. In the following months, the debtors aggressively pursued an emergency liquidity injection from their majority bondholders. However, this did not work and the debtors filed for chapter 11 in order to maximize the value of the their assets or the benefit of Their stakeholders, recapitalize their capital structure, and to enable the Debtors to take strategic action to address short and tong-term liquidity constraints.

Ultimate Electronics (DE 11-10245)
The Debtors are leading specialty retailers of high-end home entertainment and consumer electronics with 46 stores in over a dozen states, primarily in the mid-west and western United States. Of the 46 stores, 35 are operated by UAP and 11 are operated by CC Retail. All are operated under the name ''Ultimate Electronics." The debtors employee over 1500 people full time and part time. The Debtors are each wholly owned by Ultimate Acquisitions, LLC, a Delaware limited liability company.
The Debtors filed their Chapter 11 petition, based on a significant downturn in business at certain of the Debtors' locations, coupled with the refusal by certain of the Debtors' vendors to ship goods to the Debtors on open credit. The Debtors intend to utilize the Chapter 11 to streamline their operations, close underperforming locations, negotiate more favorable leases and to otherwise improve the profitability of their operations.

Powerwave Technologies (DE 13-10134)
Powerwave is a global supplier of end-to-end wireless solutions for wireless communications networks. The

Debtor's products are utilized in major wireless networks throughout the world that support voice, video and data communications by use of wireless phones and other wireless communication devices. As of the Petition Date, the Debtor employed approximately 226 individuals on a full-time basis.
Over the last several years, the Debtor has experienced significant reductions in demand from both its original equipment manufacturer customers and operating customers. To respond to these market conditions, the Debtor implemented several cost- cutting initiatives over the past several years, including reductions in its domestic and foreign workforce and the closure of certain offices and manufacturing facilities. Despite these restructuring efforts, the Debtor did not have sufficient liquidity to make the necessary investments in its working capital to continue manufacturing products. Before additional liquidity could be secured, the debtor defaulted on a credit facility. As a result, the debtor declared chapter 11 in order to pursue restructuring or a sale process.

Green Field Energy Services (DE 13-12783)
The Debtors are an independent oilfield services company that provides a wide range of services to oil and natural gas exploration and production companies. While the Debtors are headquartered in Lafayette, Louisiana, the Debtors have, as of October 18, 2013, approximately 335 active employees, located in 14 facilities in Louisiana and Texas.
The Debtors engaged in large capital expenditures in order to build out their fleet of hydraulic presses from 7 to 65, in order to take advantage of competitive advantages associated with fleet size. However, the conclusion of this expansion coincided with a market downturn. As a result, the Debtors' customer base became more and more concentrated. In the last three years the Debtors' top five (5) customers accounted for 38% of revenues (2010), 52% of revenues (2011), and 88% of revenues (2012). Additionally, in August 2013, Shell, by far the Debtors' largest customer, accounting for 79% of total revenues in 2012, informed GFES that Shell would not continue to utilize the Debtors' services. This forced the debtor into filing chapter 11. The Debtors' ultimate goal in these Chapter 11 Cases is to restructure their capital structure by reducing debt and obtaining additional financing.

Optim Energy (DE 14-10262)
The Debtors are power plant owners principally engaged in the production of energy in Texas's deregulated energy market. The Debtors operate three plants in eastern Texas.
A changing marketplace severely constrained the Debtors' liquidity and made it impossible for the Debtors to fund continuing business losses, refinance their debt, or access additional borrowed money. Prior to filing, the Debtors had $713 of outstanding debt and were unable to access the credit markets without the consent of Cascade (an investor), who was unwilling to permit further borrowing. However, Cascade and ECJV have agreed to provide debtor-in-possession financing and to permit the use of cash collateral to fund the Debtors' operations and restructuring in these chapter 11 cases.

Northeast Mainland Services (DE 15-11402)
The debtor in this case is Northshore Mainland, a real estate/resort developer who is in the process of building a resort in the Bahamas. The Debtors' Project is approximately 97% complete and, when fully completed, will be one of the largest employers in The Bahamas.
As the construction on the project progressed, the debtor had multiple issues with its hired contractors, as they failed to periodically update them on the progress of the site and, later, failed to complete portions of the project on schedule. This resulted in the debtor failing to open the park in December, its target date, which significantly hindered revenues. The contractor additionally failed to complete the park by the pushed back date of March 2015. By the end of May 2015, it became clear to the Debtors that, without a negotiated resolution, they would run out of cash by the end of June 2015, if not sooner. With no more viable options, the debtors filed for chapter 11 protection. The Debtors believe that chapter 11 is the best available means for preserving and maintaining the Project and then achieving their ultimate goal of becoming an operational word-class resort.

Newbury Common Associates (DE 15-12507)
The Debtors and their non-debtor affiliates comprise a corporate enterprise that owns a diverse portfolio of high quality, distinctive commercial, hospitality and residential properties located primarily in Stamford,

Connecticut. Seaboard Realty, LLC, directly or indirectly, serves as the manager under the operating agreements for each of the Debtors and their non-debtor affiliates and is owned 50% by John DiMenna, 25% by Thomas Kelly and 25% by William Merritt.
Around November 2015, Mr. Kelly and Mr. Merrit became aware that Mr. DiMenna had been misrepresenting the financial situation of the Debtor, and that the Debtor was having difficulty meeting its financial obligations. As the investigation into the Debtors' finances began, it became readily apparent that there were significant questions related to the Debtors' assets and liabilities. Chapter 11 proceedings were necessary to retain the value of the enterprise while the investigation continued.

Aloha Airlines (HI 08-00337)
Aloha is a Delaware corporation and is a certificated, diversified aviation services corporation based in Honolulu, Hawaii. Aloha also is the largest provider of contract aviation services, serving more than 20 domestic and international air carriers in Hawaii. The Aloha fleet currently consists of 27 airplanes and Aloha employees 3500 people.
Aloha previously filed voluntary petitions for relief under Chapter 11 of the Bankruptcy Code on December 30, 2004. The present financial situation occurred as a competitor, ''go!", entered the market-place and began providing services at below-market and below-cost fares. This resulted in a fierce price war, the consequences of which was augmented by increasing fuel prices.

Wickes (ILN 04-02221)
GLC Division Inc, and Lumber Trademark Company, Wickes is a leading supplier of building materials and manufacturer of building components in the United States. Wickes operates 52 sales and distribution facilities and 10 component manufacturing facilities. As of the Petition Date, the Debtor owed the Senior Lenders approximately $39,000,000 on the revolving credit facility and approximately $22,375,000 on the term loan.
In November, 2003, the Debtor made an exchange offer of cash or cash and new notes for all $21,123,000 in face amount of its 11 5/8% Subordinated Notes due 2003. This offer was rejected. The Debtor filed the Case because the Debtor (a) was unable to retire a sufficient amount of debt through the Exchange Offer, (b) has not acquired alternative financing of its note obligations and other obligations, (c) is experiencing limited borrowing availability under the revolving loan portion of the Senior Lending Facility and (d) is having restrictive terms imposed on it by vendors.

High Voltage Engineering Corp (MA 05-10787)
The Debtors and their non-debtor affiliates and subsidiaries are a group of industrial and technology based manufacturing businesses. The Debtors' operating and manufacturing facilities, including those owned or leased by the Debtors' non-debtor affiliates and subsidiaries, are located in Pennsylvania, Minnesota, Massachusetts, California, Canada, Italy, the Netherlands, the United Kingdom and other foreign countries. Worldwide, the Debtors and non-debtor subsidiaries employ over 1800 people, including temporary employees. The Debtor's products are sold to a variety of industrial clients. The Debtors, along with certain non-debtor affiliates, previously filed for protection under chapter 11 of the Bankruptcy Code in the District of Massachusetts on March 1, 2004.
Robicon (a Debtor), which has experienced the most severe cash shortage of the all the Debtors, has had to severely restrict its payments to its vendors in the last seventy-five days. As a result of this cash shortage, as of the Petition Date, Robicon owed its trade vendors in excess of $20 million. The Debtors have determined that the best long-term solution to the cash shortage they are currently experiencing, and in order to maximize the value for their creditors, is to sell all or most of their assets.

GETRAG Transmission Manufacturing (MIE 08-68112)
The Debtor's main business was, the design, manufacture, assembly and supply of dual clutch transmissions (DCT) from to be constructed in Tipton, Indiana. Pursuant to the transmission supply agreement (TSA), among other things, Chrysler was required to purchase exclusively from the Debtor all of Chrysler's annual requirements for DCT's up to certain volumes through model year 2020, as well as requiring Chrysler to reimburse the Debtor up to $305 million for machinery costs. The Debtor also answered into a financing agreement to obtain $300 million.

By letter dated October 17, 2008, Chrysler notified the Debtor that it was terminating the financing agreement, the TSA and all other related agreements with respect to the Project. The debtor denies that it violated any covenants or committed fraud of any kind. The Debtor entered into chapter 11 bankruptcy to preserve the value of the business while defending itself against litigation from Chrysler, as well as while suing Chrysler.

Contech (MIE 09-42392)
The Debtors are a leading light metals die casting and machining company focusing on automotive that is separated into 2 business units - the Casting Group and the Steel Products Group. While the Debtors' corporate headquarters are located in Portage, Michigan, they operate nine plants in the United States: Michigan; Indiana; Tennessee; Michigan (2 facilities); Indiana; Michigan and North Carolina.
The decline of the automotive industry in 2009 severely impacted the debtor's business. This led the debtor to attempt numerous turnaround initiatives: consolidation, overhead reduction, inventory reduction, etc. The lack of liquidity led the Lenders effectively seized the Debtors' cash of approximately $11.5 million. The lack of cash left the Debtors in the untenable position of being unable to pay their employees and continue to pay their array of trade creditors. In the face of this unsustainable cash position, the debtor declared bankruptcy.

Otter Tail Ag Enterprises (MN 09-61250)
The Debtor operates an ethanol plant in Minnesota.

Abengoa Bioenergy US (MOE 16-41161)
Abengoa Bioenergy is a collection of indirect subsidiaries of Abengoa S.A. (''Abengoa"), a Spanish company founded in 1941. Abengoa is a leading engineering and clean technology company with operations in more than 50 countries worldwide. The global headquarters of Abengoa Bioenergy is in Chesterfield, Missouri. With a total investment of $3.3 billion, the United States was Abengoa's largest market in terms of sales volume. The Debtor employed approximately 170 of Abengoa's 32,000 global employees.
The debtor was initially hurt by the decline of the Spanish economy in 2013, but managed to stay in business by issuing debt. During 2015, The Parent Company lowered its revenue guidance, which raised concerns regarding the company's liquidity and cash position. The main impact on Abengoa's liquidity was a higher consumption of cash due to accelerated payment to suppliers. Abengoa then announced a plan aimed at improving liquidity and reducing corporate leverage. Abengoa also sought to secure an investment from Gonvarri Corporacion Financiera, one of the main shareholders of Abengoa. Abengoa was unable to close the Gonvarri transaction, which left it without sufficient capital to operate. The Debtors intend to use the ''breathing room" permitted by the Bankruptcy Code and DIP financing to carefully plan the course that will maximize the value to all stakeholders in these cases.

EnCap Golf (NJ 08-18581)
In May 2004, EnCap commenced the remediation of a contaminated real estate site, after it was chosen by NJMC (the New Jersey Mining Company). Subsequent to the remediation and closure of the Site, EnCap had the right to develop a mixed-use redevelopment project.
The debtors have faced recurring liquidity crises throughout the course of the project due to cost overruns. Additionally, the first portion of the Project was to be financed through PILOTS (Tax abatements), which are essential to the collateral package for the creditors. As set foth above, the State has communicated an unwillingness to support securitization of the PILOT Agreements or any modified versions. EnCap missed several payments to Wachovia, as well as some of its contractors, and was subsequently issued a notice of default. The Debtor and the state of New Jersey entered into some negotiations regarding the Trump Organization managing and rebranding the site. However, the Debtor eventually entered into Chapter 11.

ShengdaTech (NV 11-52649)
The Debtor is a Nevada corporation under the name Zeolite Exploration Company. The Debtor participated in a share exchange and acquired all of Faith Bloom. Faith Bloom, which remains the Debtor's wholly owned subsidiary, is the direct parent company of several Chinese subsidiaries. The Debtor began trading on the Nasdaq in late 2006.

The events leading to the bankruptcy began in 2008 when KPMG - the Debtor's auditor - notified the Debtor that it had material control weaknesses within its company. However, the auditor's 2009 opinion did not contain any adverse material. In March 2011, however, KPMG alerted the Debtor to potential serious discrepancies in its financial statements. In response to this the Debtor formed a special committee that, amongst other things, created a cash control plan. In 2011, KPMG formally resigned as the Debtor's auditor, after it was unable to verify many of the cash accounts of the Debtor. The Debtor was delisted from the Nasdaq a day after KPMG's resignation. The Special Committee determined that it was necessary to remove all of the Debtor's management, including the President and CEO, and appoint an independent management team.

Musicland (NYS 06-10064)
The Debtors are comprised of nine separate legal entities which are leading national specialty retailers of music, movies, games, and other entertainment-related goods - The debtor's operate under the name ''Musicland". Musicland consists of approximately 869 retail stores in 48 states, Puerto Rico and the Virgin Islands. The Debtors employ approximately 12,600 employees.
The Debtor's core business was severely impacted by the 7% decrease in music album sales in 2005. In response to this, Musicland engaged Duff & Phillips to raise $50 million of preferred stock and to help restructure $125 million of accounts payable. Neither of these initiatives was consummated. The Debtors determined that chapter 11 would afford them the opportunity to close their unprofitable stores, reduce their overhead expenses, and realign their capital structure.

M. Fabrikant & Sons (NYS 06-12737)
The Debtor in this case is M. Fabrikant and Sons, a leading diamond and gemstone jeweler. The Debtor operates on a global scale and owns subsidiaries in India and Israel. The Debtor has 99 domestic employees. The Debtors transitioned its wholesale jewelry business to a subsidiary in 2005 and decided to focus on the loose diamond business.
The events leading to the bankruptcy began when two of the Debtor's larger retail costumers declared bankruptcy, resulting in substantial write-offs. The Debtor retained an investment bank in 2006 to begin to seek strategic alternatives for the business. After completing its analysis, the bank sought qualified buyers or investors to recapitalize the company. While the Debtors received two non-binding proposals, neither were deemed acceptable. In the face of continued losses and a mounting liquidity crises, the Debtor's began chapter 11 proceedings.

L.I.D. Ltd. (NYS 07-10725)
The Debtor is engaged in the business of wholesaling diamonds and diamond jewelryOn or about January, 2004, the Debtor employed approximately 100 employees and had revenues of approximately $100 million in annual sales.
Due to certain changes within the diamond industry, revenues and profits declined. The Debtor adopted a plan that it expected would eventually restore the Debtor's core business.

1031 Tax Group (NYS 07-11448)
The Debtors act as a ''qualified intermediary" for deferred like kind property exchanges. The Debtor does business as the ''1031 Group". Edward H. Okun is the sole member of The 1031 Tax Group. Okun made 6 acquisitions between August 2005 and December 2006 under a business strategy of ''rolling up" regional QIs into a national firm.
The events leading to the bankruptcy began with these acquisitions. According to Okun, the acquired companies did not meet revenue expectations in line with historic performance, which he attributes to local management. While a strategic acquisition strategy was being pursued, it appears that very little effort was focused on integrating the acquisitions. The levels of new business dropped at the same time the total amount of debt was growing, creating the beginning of a liquidity crisis. According to Okun, the Debtors' liquidity crisis in the period leading up to the Petition Date was the result of management of the various regional offices engaging in a practice of opening new localized bank accounts for the deposit of Exchanger funds, rather than utilizing the Debtors' main operating accounts, but which accounts were unknown to the Member or his treasury management group. A preliminary investigation by the U.S. Attorney's Office,

Richmond, Virginia began concerning the activities of the Debtors. The Debtors determined and believed that it was absolutely necessary to file immediately for relief under chapter 11 to address the pending court actions, resolve claims and proceed with an orderly restructuring of their businesses.

Levitz Furniture (NYS 07-13532)
The Debtor, which conducts its business as Levitz Furniture, is a leading specialty retailer of furniture, bedding and home furnishings in the United States with 76 stores in 8 states. The Debtor sources its merchandise from approximately 200 domestic and international vendors. The debtor employs 1805 individuals.
The debtors main issue has been liquidity, as they have routinely been unable to access certain funds of their credit facility due to the restrictive covenants. The restriction on liquidity under the Prepetition Credit Facility caused the Debtor to begin to struggle making timely payments to vendors and service providers. The debtor commenced chapter 11 in order to preserve the value of the business until a sale can be achieved.

BHO Carriers (NYS 12-12356)
BHO (The Debtor) engages in the business of acquiring, investing in, owning, operating and selling vessels for dry bulk and liquid cargo transportation. As of 2008, the Debtors owned and operated 15 Shipping Product Tankers, Bulk Carriers and Combination Carriers. BHO was a listed public company until November 2011, when it conducted a reverse stock split followed by a forward stock split and was delisted from the NYSE Amex. Because of the downturn in the shipping market, the Debtors primarily operate in the spot market, and only charter for specific, individual voyages of limited duration. As a result, the Debtors' cash flow is not steady.
The events leading to the bankruptcy began when a company called TTMI submitted claims against the performance of a ship that had been chartered to it by BHO. The Debtors believe that TTMI's true motivation is relief from paying above-market rates pursuant to another charter it has with another of the Debtors' vessels, the Roger M. Jones. TTMI has withheld payment of $1,426,990.50 owed to RMJ under its charter. TTMI also arrested two of the debtor's ships and has held them in port. These two factors has led the company to declare bankruptcy.

China Natural Gas (NYS 13-10419)
CHNG is a corporation organized and existing under the laws of the State of Delaware with its principal place of business in Xi'an, People's Republic of China. On or about February 8, 2013, three alleged creditors, Abax Lotus Ltd. and its affiliated entity, Abax Nai Xin A Ltd. along with Lake Street Fund LP filed an involuntary petition against CHNG.

Primorsk International Shipping (NYS 16-10073)
The Debtor is an international specialty shipping company and one of the world's leading operators of modem ice-classed, double-hulled tankers. The Company operates nine wholly owned vessels and operates through long-term contracts.
The company undertook a plan to grow its fleet to 25 ships directly before the financial crisis that began in 2007. The global economic downturn greatly affected the company's business as global trade declined. Following the financial crisis, the Company utilized the proceeds of asset sales to paydown debt and focused on restructuring its remaining debt. The company attempted to restructure its Norwegian bonds (a swap to equity and cash), but the deal was never agreed upon. When the secured debt matured, the creditors, who could not be paid by the company, forced a liquidation of the company's fleet. The Company, however, believes the value of their fleet to be much higher than the assigned liquidation value, so they have entered into Chapter 11 in hopes of avoiding the forced sale.

Transmar Commodity Group (NYS 16-13625)
The Debtor - Transmar Inc. – operates as a full service cocoa trading and cocoa butter product supplier to the international confectionary industry. The Debtor is a wholly owned subsidiary of an English company ''Transmar Group". The Debtor markets its cocoa products throughout the United States, Europe and Asia. Together with its affiliates, the Debtor has over 350 commercial customers. In 2002, the Debtor's operations expanded significantly with the formation of Euromar in Germany. In order to serve multi-national customer demands, the Debtor rapidly expanded during 2014-2015.

Starting in 2016, Euromar, an indirect subsidiary of the Debtor, began to have liquidity issues. Since the Debtor was the most valuable member of the Transmar group, they were heavily relied upon to support Euromar. The Debtor and ITOCHU (a 14% Shareholder of the Debtor), agreed upon a support letter for Euromar, but failed to extend the support agreement. The Debtor's support of Euromar, which increased during the summer of 2016, and Euromar's failure to pay the Debtor substantial amounts for product sold, ultimately caused the Debtor to default under its own Credit Facility.

Ezra Holdings (NYS 17-22405)
Ezra is an investment holding company for a group of companies (the ''Ezra Group"). The Ezra Group provides integrated offshore solutions for the oil and gas industry. Ezra group is based in Singapore but has offices in the United States. Its shares were listed on the SGX Sesdaq on August 8, 2003 and moved to the Mainboard of the Singapore Exchange (''SGX-ST") since December 8, 2005.
Ezra's financial difficulties resulted from the significant weakness and volatility in the oil price environment which has persisted since 2014. The prolonged deterioration of the financial performance of Ezra's business divisions and the inability to carry out fundraising in the oil and gas industry resulted in Ezra facing a cash crunch and an inability to pay their debts as they came due. As Ezra has guaranteed substantial charter hire liabilities of the ECS Group (A Joint Venture), as well as certain loans owed by the ECS Group to financial institutions, Ezra faces potentially significant contingent liability if the creditors call on the guarantees.

Home Interiors & Gifts (TXN 08-31961)
For over 50 years, the Company has been one of the nation's leading home decor companies selling home decorative accessories. The company operates in the United States and Puerto Rico. As a direct-sales company, the Company is wholly dependent on its over 100,000 Decorating Consultants.

Omega Navigation Enterprises (TXS 11-35926)
Omega (The Debtor) is an international provider of marine transportation services focusing on seaborne transportation of refined petroleum products. Omega was founded in 2005 and its corporate headquarters is in Athens, Greece. Omega's Class A common stock was traded on the Nasdaq under the ticker ''ONAV". Together, the Debtors wholly own a fleet of eight high specification product tankers. Each wholly-owned vessel is owned by a separate Debtor entity (each a ''Vessel Owner"), all of which are wholly-owned by Omega.
The global recession lessened demand for international charter shipping of refined petroleum products, and this negatively impacted Omega's business. Additionally, at the time Omega undertook its senior debt obligations, and also thereafter, Omega was promised by its senior lenders that Omega would receive a three year extension on its senior debt facility if certain conditions were met. Omega believes it has met those conditions, yet Omega's senior lenders have not consented to the agreed upon extension. Omega has been forced to file these chapter 11 cases to protect its interests. Omega has initiated litigation against its senior lenders for what it calls ''abusive behavior" that threatens the ''European standards of competition".

BPZ Resources (TXS 15-60016)
The Debtor itself is a holding company and engages in limited business operations in the United States. The business operations of BPZ (The Debtor) are primarily technical, administrative and compliance related. The Debtor is the ultimate parent company of subsidiaries that engage in the exploration, development and production of hydrocarbons. The Debtor has 4 licenses for the exploration and production of hydrocarbons in Peru.
The events leading to the Company's bankruptcy began in 2015, with the drop in crude oil prices. This, coupled with the March 2015 maturity of a portion of the Debtor's notes, made traditional capital markets unavailable. The Debtor retained Houlihan Lokey in an attempt to raise capital through ''the Third Party Process". The Debtor also determined that it should solicit proposals with a group of investors holding the Debtors convertible notes. These talks are ongoing, but given the upcoming expiration of the grace period on the March 2015 notes, the Debtor has decided to declare Chapter 11 bankruptcy in order to preserve the value of its estate.

Shoreline Energy (TXS 16-35571)

The Debtor, Shoreline, is a privately owned oil and gas exploration and production company. Currently, Shoreline owns approximately 164,483 gross lease acreage (91,408 net acres) in Louisiana and Texas. Shoreline owns interests in 403 oil, gas and related wells, and Shoreline has estimated proved reserves of approximately 26.7 million barrels of oil.
The events leading to the bankruptcy began with the decrease in crude oil prices from 2014-2015. This decrease greatly impacted the Debtor's revenues. The debtors have sought to mitigate the financial impact of crude's fall through multiple means: seeking operation efficiencies, product diversification and reduction in lease operating costs. However, this could not mitigate the negative impact of crude prices, as well as the failure to properly integrate a recent acquisition. The debtors began actively seeking a restructuring and were also marketing their assets. Morgan Stanley Capital Group agreed to finance $50 million of DIP financing, which will provide the debtor with the liquidity it needs to function. This is believed to close in first quarter 2017.

CCNG Energy Partners (TXW 15-70136)
CCNG was formed in April 2013 as a Delaware limited partnership to act as the holding Company for two wholly-owned subsidiaries, TES and MB. The Debtors earn service revenue from the disposal of non-hazardous oil and gas exploration and production waste. The Debtors serve oil sites in Texas, New Mexico and Louisiana.
The debtors faced similar challenges to many other companies in the oilfield services industry due to the decline in exploration and production activities. While the debtor has reduced expenses in recent periods, they became unable to make payments under their credit agreement. Guggenheim refused modify the agreement, so the debtors were forced to seek the protection of chapter 11.

Circuit City (VAE 08-35653)
Founded in 1949, Circuit City (the debtor) is a publicly-held Virginia corporation, whose stock is traded on the New York Stock Exchange. The Debtor's business to is operate a chain of electronic stores, online websites and a telephone product call centers. As of the Petition Date, the Company operates approximately 712 Superstores and 9 outlet stores under the Circuit City name throughout the United States and Puerto Rico. The company employees over 39,600 full time and part time employees, and plans to utilize an additional 11,000 employees during the Christmas season. The debtor also operates a Canadian subsidiary - InterTan.
Events leading to the bankruptcy began in 2008 when one of the company's largest shareholders, Wattle's Capital, notified the debtor that it intended to nominate 5 individuals to the board of directors. The company avoided a proxy solicitation context by agreeing to appoint 3 of the 5 individuals. While this was occurring, the company received an unsolicited offer from Blockbuster. The company also appointed a new president and CEO who specialized in retail turnaround efforts. The company began to liquidate underperforming stores, improve vendor relations and undertake brand restoration efforts as part of its turnaround plan. Despite this, the company was forced to declare bankruptcy due to decreased liquidity, poor vendor relations and the global economic crisis. The company's main issue was liquidity, as it was relying heavily on a revolving credit facility, to which it had decreased availability.

Movie Gallery (VAE 10-30696)
Movie Gallery and its Debtor and non-Debtor subsidiaries (''the Company") collectively comprise the second largest North American home entertainment specialty retailer. The Company currently operates approximately 2,415 retail stores in North America located throughout all 50 states that rent and sell DVDs, video games and video game equipment. On April 27, 2005, the Company completed a cash acquisition of Hollywood, a similar business located primarily on the west coast. During the second quarter of 2007, the Company incurred significant losses from operations as a result of the industry conditions and increased competition. These losses resulted in the company breaching financial covenants on its 2005 credit facility. The company faced a liquidity crises and commenced chapter 11 proceedings.
One of the most significant industry-wide factors affecting the Company's performance since the 2007 Bankruptcy Cases has been cannibalization of rentals by DVD dispensing kiosks. The company also competes with TV companies and now platforms such as youtube and Itunes have emerged. By thefourth quarter of 2009, it was apparent to the Company's management that the Debtor's poor operating results would result in its breaching of certain credit agreements. Prior to the Commencement Date, the Debtors conducted

an extensive review of their store portfolio with the objective of identifying and closing unprofitable store locations. Throughout the third and fourth quarters of 2009, the Debtors closed approximately 560 store locations. The Debtors will continue to evaluate stores and will make decisions whether to close such other stores on a rolling basis throughout the chapter 11 cases.

Toys "R" Us (VAE 17-34665)
Toys "R" Us offers one of the largest and most up-to-date selection of toys at nearly 1,600 toy stores in 49 states and 38 countries. Operating under the Toys "R" Us, Babies "R" Us, Toys "R" Us Outlet, and Toys "R" Us Express brand names as well as at Toysrus.com, Babiesrus.com, and other websites in international markets, Toys "R" Us is the leading chain of toy stores in the world. A global reach, effective marketing, and broad product diversity – combined with the Company's loyalty program, which includes 19 million domestic users and 12 million international users – increases market exposure and builds customer loyalty. Today, The Toys "R" Us brand is one of the most recognizable brands in the world, overtaking the likes of Crayola, LEGO, and Apple for recognition among children.
Expensive debt service and unrelenting competition from e-commerce and big-box retailers continue to drag on the Company's performance. Practically speaking, this competition manifests itself in price wars; during the 2016 holiday season, big box retailers slashed prices on toys and flooded marketing channels, knowing that if they can get consumers in the door to purchase attractively-priced toys, they can make up for decreased toy revenue with other in-store purchases. Further, online retailers such as Amazon are not concerned with making a profit at this juncture, rendering their pricing model impossible to compete with for a company such as Toys "R" Us. To compete, Toys "R" Us would have needed to slash prices on the same toys to keep traffic coming into its stores, decreasing its revenue and cash flows in an unrelenting race to the bottom. But Toys did not engage in this race to the bottom.

Natural Molecular Testing Corp (WAW 13-19298)
The Debtor is a Washington corporation based in Renton, Washington. The Debtor is an industry leader in molecular diagnostic testing for pharmacogenomics, women's health, oncology, infectious disease, and more. The Debtor generates revenue through the sale and conduct of the testing it offers to health care providers. In January of 2013, Medicare implemented a new reimbursement/pricing structure and reimbursement timeline for molecular genetics testing. This change temporarily eliminated an important source of revenue for the Debtor. Subsequently, in April of 2013, Medicare informed the Debtor that its approved payments dating back to 2012 were being suspended due to allegations of improper billing practices, which the Debtor rebutted and continues to dispute. Revenues decreased drastically thereafter, and the Debtor continued to pay certain commissions to its sales representatives and other expenses it incurred to perform its genomic testing. As a result the Debtor was forced to lay off staff. The Debtor's test volume is a fraction of what it once was. This bankruptcy filing ensued shortly thereafter.

Online Appendix B

Descriptions of Failed (A $\rightarrow$ L) Acquisitions from First-Day Affidavits

This appendix provides a description of all firms that entered Chapter 11 intending to be acquired but exited Chapter 11 in liquidation. For each case, the first paragraph describes the firm's operations while the second paragraph describes the reason that the firm entered Chapter 11. All text was sourced from First Day Affidavits or Motions.

Three-Five Systems (AZ 05-17104)
The Debtor, through subsidiary companies, is a global provider of electronics manufacturing services. The Debtor designs and manufactures electronic printed circuit board assemblies, and complete systems for customers in a wide variety of fields. Virtually all the Debtor's operating assets and functions have been maintained and conducted at the subsidiary level in facilities throughout the world. Prior to bankruptcy the debtor divested facilities in the Philippines and Massachusetts. As of the petition date the debtor had 9 employees.

Aviza Technology (CAN 09-54511)
ATI is a publicly traded company whose stock is traded on the Nasdaq Global Market under the symbol ''AVZA.'' As of February 3, 2009, ATI had 21,856,473 shares of its common stock outstanding. The Company designs, manufactures, sells and supports advanced semiconductor capital equipment and process technologies for the global semiconductor industry and related markets. The Company is headquartered in Scotts Valley, California and operates its manufacturing, sales and support through directly and indirectly wholly owned subsidiaries in the United States, the United Kingdom, France, Germany, Korea, Japan, Malaysia, Singapore, Taiwan, Peoples Republic of China and Israel.
The company began to experience weakness in customer demand associated with the recession of 2009. Due to the rapid decline in new orders and sales, the company employed and investment bank to seek a sale or raise additional capital. The company is in current negotiations for a sale, and believes that the proceeds from the sale will be enough to pay unsecured creditors.

FLYi, Inc. (DE 05-20011)
FLYi, through Independence, operates a premier low-fare airline providing all-jet service to 38 destinations in 23 states. In June 2004, the Company commenced operations as ''Independence Air'' from ''Atlantic Coast Airlines''.
The company's road to bankruptcy began with a rocky launch in a deteriorating market in June 2004. Paramount amongst these issues were the high fuel prices that the company faced. Industry fares did not rise to meet equilibrium with the higher fuel prices. In its first 17 months of operation, the company took significant steps to improve revenues by filling more seats and cut costs by eliminating surplus aircrafts. The company also launched a restructuring program in 2004 to access more liquidity. All of the actions described above have proved to be insufficient to sustain the Company. In 2005 the company hired Miller Buckfire to solicit investment offers. These measures were not enough to stem the Company's operating losses. As a result, the Company commenced these chapter 11 cases in an effort to conserve its cash and to use the chapter 11 process to continue its efforts to find an investor or strategic partner to fund its business operations, or a purchaser of all or some of the Company's operations or assets.

Nutritional Sourcing Corporation (DE 07-11038)
NSC (Nutritional Sourcing Company) has no operations of its own, and its only assets are its direct and indirect equity interests in its subsidiaries and a secured intercompany note issued to NSC by the Operating Debtors. The Operating Debtors operate a supermarket chain and a video rental store chain in Puerto Rico and video rental stores in the U.S. Virgin Islands. As of the Petition Date, the Debtors employed approximately 2,500 people.
The primary factors contributing to the Debtors financial problems are (i) its leveraged debt structure, (ii) increased competition, primarily from both local competitors and multi national competitors in the market, including Wal-Mart. The impact of increased competitions (mostly online) and the declining Puerto Rico

economy resulted in NSC failing to meet its 2007 interest payment. Accordingly, the Debtors commenced these chapter 11 cases to sell substantially all of their assets and wind up their businesses.

Reliant Energy Channelview (DE 07-11160)
The Debtors' business is the ownership and operation of a natural gas plant located in Channelview, Texas. Since the commencement of commercial operations, the Debtors have relied on revenue from operations in order to fund operations and service debt.
Cash flow has been and is anticipated to continue to be sufficient to fund operations. However, the Debtors lack additional funds or access to credit to repay their $14 million revolving credit facility, which is due to be repaid, after giving effect to applicable grace periods, on August 20, 2007. The Debtors were unable to arrange an acceptable forbearance from their secured lenders, and thus were faced with acceleration of their Secured Credit Facility (as defined below) and the exercise of remedies by their lenders, necessitating the filing of the Chapter 11 Cases.

Pope & Talbot (DE 07-11738)
Pope & Talbot, which was founded in 1849, is the direct or indirect corporate parent of all of the other Debtors and their non-debtor affiliates. The Company is headquartered in Portland, Oregon, and currently conducts business in two operating segment: Pulp and Wood. The Company currently employs approximately 2,300 employees. About half of the employees are employed in the Company's Canadian operations .
The 2008 recession lead to the price/demand of paper and wood products to reach a 25 year low. As a response to this, the Company reduced output in many of its sawmills/production facilities. As a result of its financial position, the company was highly leveraged in the face of this decline in demand. The company entered into a forbearance agreement with its creditors that extended through September 2007. The announcement of this forbearance agreement led to the tightening of trade terms with the company. This combined with the fragile liquidity situation to force the company into Chapter 11 bankruptcy.

Wickes Furniture Company (DE 08-10212)
Wicks Furniture (the debtor) is a large furniture retailer. Since its founding in 1971, Wickes Furniture has grown to include 43 showrooms and four distribution centers in California, Illinois and Oregon, and one cross dock operation in Nevada. The company employs approximately 1,459 people.
The company's financial decline began in 2006, when the decline in the housing market significantly affected sales in many of its stores. The company requested additional funds from it primary investor, but the liquidity injection was contingent on the debtor being able to secure agreements from vendors to defer payments. As a result, the liquidity injection wasn't consummated. As a result of its liquidity crisis, the Debtors considered the various alternatives open to them and filed these bankruptcy cases to allow the Debtors to pursue alternative restructuring options under Chapter 11.

Hoop Retail Stores (DE 08-10544)
Hoop (the Debtor) was organized by TCP in August 2004 to acquire, own and operate Disney Stores located in the United States and Canada. As a result of the Debtors' acquisition of the Disney Store operations, the Debtors acquired 313 Disney Stores, consisting of all of the then existing Disney Stores owned and operated by Disney in the United States and Canada.
The Debtors believe it is in the best interests of all stakeholders to commence these chapter 11 cases. Chapter 11 will enable to Debtors to consummate the sale to Disney in an orderly and efficient manner while at the same time maximize the value of the assets for creditors.

Whitehall Jewelers (DE 08-11261)
Whitehall Jewelers is a nationwide specialty retailer of fine jewelry offering a wide selection of merchandise. As of the Petition Date, the Debtors operated 373 retail stores located in 39 states. On the Petition Date, the Debtors employed approximately 2,852 individuals.
The Debtors experienced financial difficulties for several years prior to the Petition Date, including recurring losses and significant negative cash flows from operations in each of the last three fiscal years. To address these financial difficulties, prior to the Petition Date, the Debtors undertook various actions to improve sales and operating performance, and to reduce expenses, such as closing of 89 underperforming stores since

2005. However, these measures proved unsuccessful, as the company faced mounting liquidity problems. The debtors decided to pursue Chapter 11 proceedings in order to preserve the value of the underlying business for shareholders and creditors.

Syntax-Brillian Corporation (DE 08-11407)
The Debtors are designers, developers and distributors of high-definition televisions. The debtor has multiple agreements to sell products in international markets such as China and Brazil.
In response to large financial and operational issues, the debtor began to seek a sale to a third party. The debtors located a potential buyer in TCV and have begun to negotiate terms of the sale. Chapter 11 would provide the Debtors an opportunity to effectuate a quick sale process that would satisfy the Pre-Petition Lenders to the extent possible, and achieve the highest and best value for the Debtors' assets.

Hospital Parnters of America (DE 08-12180)
Since 2002, the Debtors have developed, invested in and provided management services to hospitals that are co-owned with local physician investors. One of the Operating Hospitals is located in California. The other three Operating Hospitals are located in Texas. HPA (debtor) currently employs 18 individuals.
Over the past several years, virtually all of the hospitals19 in which the Debtors are invested have been experiencing increased financial challenges. These challenges are the result of a series of factors, including continued pressure from third-party payors to reduce the rate of reimbursement for hospital services, declining patient census counts, increasing delays in the collection of receivables. These issues have been increased by the highly leveraged position of the hospitals. HPA has decided to declare chapter 11 in order to protect the value of assets while pursuing a sale process.

Eclipse Aviation Corp (DE 08-13031)
Founded in 1998, Eclipse Aviation, which currently employs approximately 945 people, has developed and manufactures twin turbofan jet aircraft, specifically known as the Eclipse 500. Eclipse Aviation engineers, manufactures and sells the Eclipse 500 through its manufacturing and headquarters facilities in Albuquerque, New Mexico and provides full service maintenance and repair services through its three service centers located in Albuquerque, New Mexico, Albany, New York and Gainesville, Florida.
Despite achieving manufacturing volumes in excess of most competitors, Eclipse was unable to reach its optimal level of manufacturing output. Eclipse also hired a major investment banking firm to identify and approach prospective investors about a substantial investment in Eclipse. To conserve its cash, while creating as long a window of time as possible to procure financing, Eclipse in late August 2008 reduced its workforce substantially and severely curtailed planned aircraft. Due to a variety of factors, including the current global economic uncertainties, those efforts to raise capital outside of a bankruptcy proceeding proved unsuccessful, and Eclipse s cash balance has declined to levels that jeopardize the continued operation of the company. This led them to declare chapter 11 bankruptcy.

Proliance International Corporation (DE 09-12278)
The Company is organized into two segments, Domestic and International, which design, manufacture and market heating and cooling components and systems for sale in the automotive, light and heavy duty truck aftermarkets in North and Central America and Europe. As of the Petition Date, the Debtors had approximately 400 employees in the United States and 1,100 employees internationally.
The debtors financial issues began with the decline of the U.S. Auto industry. Additionally, a casualty event in which nearly all of the Debtors' automotive and light truck heat exchange inventory was destroyed significantly reduced the debtors borrowing capacity and gave the creditors substantial leverage over the firm. Throughout the 2007/2008 period, the company introduced substantial cost cutting methods that helped to boost its EBITDA. The company also hired an investment bank to solicit possible investment or sale offers. The company eventually chose to enter into chapter 11 bankruptcy to preserve the value of the business.

Trident Microsystems (DE 12-10069)
Although previously a semi-conductor company, the majority of the Company's operations now focus on the set-top box and television business lines that were acquired several years ago. The company currently has 1000 employees.

The Debtors currently face approximately $127,985,379 in intercompany payables. Additionally, industry semiconductor inventory levels are currently elevated due to slowdown in consumer electronics markets primarily driven by slowdown in Western economies. As a result of the above items, the Company has experienced continued operating losses which have resulted in declining cash over the past year. The deteriorated value of the outstanding common stock and the termination of the Bank of America line of credit have restricted the Company's ability to raise money through traditional means. Prior to filing these chapter 11 cases, the Debtors undertook a marketing effort to identify a potential purchaser of their set-top box business line. The Debtors have identified a stalking horse bidder for their set-top box business.

Source Home Entertainment (DE 14-11553)
The Debtors are industry leaders in the manufacturing of front-end retail checkout displays and, up to very recently, were one of the leading wholesale distributors of books, periodicals, and other printed material in North America. The Debtors currently employ 166 full-time employees.
In October 2013, each of the Debtors, along with certain of their then-affiliates, entered into an out-of-court debt-for-equity swap with their secured lenders. Although the Debtors emerged from the October 2013 Restructuring with substantially less debt, the Debtors' actual performance did not meet their business plan and forecasts due to declines in print media and intense competition. In light of this, the Debtor's decided to wind down their distribution operations, file for chapter 11 and pursue a sale.

Taylor-Wharton International (DE 15-12075)
The Debtors in these cases are TWI, a Delaware limited liability holding company formed in 2007, and its wholly-owned operating subsidiary, Cryogenics. Cryogenics is a leading designer, engineer and manufacturer of cryogenic equipment designed to transport and store liquefied atmospheric and hydrocarbon gases. Cryogenics has manufacturing operations in Theodore, Alabama and its wholly-owned non-debtor foreign subsidiaries have manufacturing operations in China, Malaysia, Slovakia, and maintain warehouses in Germany and Australia. Currently, the Debtors employ approximately 164 employees in the United States.
Upon emerging from chapter 11 in 2010, TWI worked to achieve profitability but was unable to do so. TWI sold several of the Operating Companies to reduce debt. The Debtors' financial issues have been compounded by product liabilities. As a result of these challenges facing its businesses, the Debtors have commenced these cases in order to preserve and maximize the value of their business for the benefit of stakeholders. As of the petition date the debtors have already received a stalking horse bid.

Hancock Fabrics (DE 16-10296)
The Company is one of the largest fabric retailers in the United States of America, with 2014 sales of more than $283 million. Hancock employs approximately 4,500 full time and part time employees. The company owns and operates a facility in Mississippi.
In recent years, however, the Company has experienced a challenging business environment and has been burdened by significant legacy costs, such as its pension expenses. Due to these and other factors, the Company has been forced to rely on bank borrowing to fund its working capital needs, its required cash contribution to the Company's pension plan, capital expenditures and its operations. Eventually, the company lacked necessary liquidity to fund its operations. Because of this, the company decided to file chapter 11 in order to access capital markets, reduce pension costs, divest underperforming stores and seek value for shareholders and creditors.

Sports Authority (DE 16-10527)
The Debtors are one of the nation's largest full-line sporting goods retailers. The Debtors currently operate 464 stores and five distribution centers across 40 U.S. states and Puerto Rico.
The Debtors have faced declining revenues as a result of rapidly changing consumer behavior, loss of market share as a result of increased competition from traditional and internet retailers, deterioration in customer relevance, loss of cross-selling opportunities due to a higher proportion of online sales, and an online platform that is economically disadvantageous and limited in its consumer offerings. In addition, and more broadly speaking, the Debtors have struggled under the weight of the Secured Debt Obligations and the Subordinated Debt Obligations. All of these debt obligations mature within approximately the next two years. The debtors hired the investment bank Rothschild to negotiate with creditors and possibly pursue a sale process.

The company additionally declared chapter 11.

Hastings Entertainment (DE 16-11452)
Founded in 1968, Hastings, a Texas corporation, is a leading multimedia entertainment and lifestyle retailer. With the assistance of over 3,500 employees, Hastings operates 123 superstores at locations it leases from third parties, averaging approximately 24,000 square feet, principally in medium-sized markets located in 19 states, primarily in the Northwestern, Midwestern, and Southeastern United States.
Over the last several years, the Debtors have suffered declines in sales and increasing losses in net income. In December 2015, Hastings' prior President and Chief Operating Officer and a prior Chief Financial Officer resigned, and the decision was made to implement a holistic, top-down operational restructuring. The restructuring plan involved changing the layout of stores, better financial forecasts and reducing expenses. The debtors experiences a liquidity crisis in 2016 due to a sharp drop in revenue. Over the subsequent 5 weeks, Hastings management, FTI and RCS contacted approximately 22 strategic acquirers, including Hastings' key competitors, and solicited interest from approximately 10 investors and financial institutions that invest in or acquire distressed retailers. The debtors commenced chapter 11 to either recapitalize or sell the company.

American Apparel (DE 16-12551)
The Debtors are one of the largest apparel manufacturers in North America, employing approximately 4,700 employees across three active manufacturing facilities, one distribution facility and approximately 110 retail stores in the United States.
The Debtors filed for chapter 11 in October 2015, confirmed a fully consensual plan of reorganization in January 2016, and substantially consummated that plan of reorganization on February 5, 2016. Unfortunately, the business turnaround plan upon which the Debtors' plan of reorganization was premised failed. As it became clear during the summer of 2016 that the Debtors could not continue as they were, the Debtors hired an investment banker and began a robust sales process, seeking a buyer for substantially all of their assets. These chapter 11 cases were commenced in order to sell the entirety of the business.

Ciber, Inc. (DE 17-10772)
Ciber (Debtor) had become an industry leader in information technology consulting services. Ciber's growth was fueled largely by making over sixty (60) acquisitions at a cost of more than $1 billion. Today, CIBER, Inc. employs approximately 2,200 employees.
Ciber's troubles began with a soft market for its products in 2013. After some restrucuting, the company entered into a Credit Agreement with Wells Fargo, which it subsequently defaulted on in 2016. Despite Wells waving this default, the debtor had both operational and financial issues. The debtors retained Houlihan Lokey to assist in locating a potential sale/merger candidate. Contemporaneously with the commencement of these Chapter 11 Cases, the Debtors will file a motion seeking to establish bidding and sale procedures for a stalking horse buyer.

Gemini Air Cargo (FLS 08-18173)
The Debtors operate their business principally though Gemini. Gemini is an air cargo carrier that provides worldwide airport-to-airport service to the air freight community and airline customers, primarily under renewable long-term contracts. Gemini has over 275 employees, and approximately 40 domestic and international full and part-time independent contractors.
Gemini emerged from bankruptcy in August 2006. At the end of October 2006, a long-standing contract with Lufthansa Cargo expired and was not renewed. As a result of the events described in the preceding paragraphs, including the substantial increase in fuel costs, the Company's revenue generation during 2007 and 2008 was been significantly below plan. In February 2008, the Debtors commenced a process to find a buyer for their businesses or their assets. The company's need to sell all of its assets has compelled it to commence these chapter 11 cases.

Beaulieu Group (GAN 17-41677)
Beaulieu is one of the largest, vertically integrated carpet manufacturers in North America, and is also engaged in the distribution of carpet and hard surface flooring products in both residential and commercial

markets in the United States and many foreign countries. As of the Petition Date, the Debtors have approximately 2500 employees.
Over the last 10 years, Beaulieu's revenue has declined from over $1 billion in 2007 to approximately $525 million in 2016, while its market share has decreased from 7.7% to 4.4%. Meanwhile, however, Beaulieu's overhead and cost structure was developed for a much larger company, and proved burdensome. After one or more events of default were declared under the Revolving Loan Facility, starting in December, 2016. The company declared chapter 11 in order to preserve the underlying value of the business.

Noble International (MIE 09-51720)
Collectively, the Debtors are a full-service provider of flat, tubular, shaped and enclosed formed structures to automotive original equipment manufacturers and their suppliers, for use in automobile applications. The Debtors operate seven production facilities in the United States, and have approximately 821 full-time employees.
By the third quarter of 2008, business conditions facing North American and European vehicle manufacturers deteriorated significantly due to macro trends. The debtors entered into multiple agreements with Comerica bank and major car manufacturers to guarantee expedited payment for its parts. This agreement was extended until 2009. The company then entered into a lawsuit against a 2 companies.

Energy Conversion Devices (MIE 12-43166)
Founded in 1961 in Detroit, Michigan, ECD has been at the forefront of materials science and renewable energy technology. Prior to recent layoffs, the Debtors employed more than 1,400 people at manufacturing locations in Michigan, Canada and Mexico and at globally-located sales offices. ECD's main subsidiary is USO, through which it sells the majority of its products.
Beginning in 2009, USO's sales began to slow at the same time that pricing for all solar products. The company also faced a decline in government incentives and competition from low cost providers. USO has reduced the cost of manufacturing its solar products and taken steps to align its expenses with expected revenue. In 2010, USO reconfigured its manufacturing footprint to take advantage of low-cost manufacturing opportunities in Mexico. However, sales volumes continued to decline and the company entered into Chapter 11 in order to pursue a sale and hold the underlying value of the business.

BMC Industries (MN 04-43515)
BMC was established in 1907 and is a multinational manufacturer and distributor of precision-engineered products in two primary product segments: aperture mask and non-mask products, and optical lens products. BMC has experienced significant business declines and a significant reduction in cash flow over the past year. These came as a result of product shortages associated with the closure of BMC's Arizona plant. This led BMC to be unable to make required payments under its loan agreements. BMC's creditors refused to continue funding a declining business, so BMC declared chapter 11 in order to preserve the value of the business for sale.

WD Navarre Holdings (MN 17-42726)
WYNIT functioned as a ''middle man" in the retail supply chain for consumer electronics and appliances. The majority of WYNIT's revenue comes from sale of product to national retailers.
The debtor's financial issues began when it experienced a soft holiday market for its products, much below forecasts. The debtor then was forced to grant its main supplier a second lien on its assets in order to continue receiving inventory shipments. However, these negotiations failed and the debtor attempted to negotiate a mezzanine lien with a third party. These negotiations were blocked by the main supplier, and the debtor was forced to declare chapter 11 in order to preserve value for creditors.

Mississippi Phosphates (MSS 14-51667)
The debtor in this case is MissChem and its subsidiaries. MissChem is a chemical company operating in North America. MissChem previously declared bankruptcy in 2003.
Prior to the Petition Date, the cumulative effect of several factors, including natural disasters, market fluctuations, deferred capital expenditures and maintenance, unplanned shutdowns of the production facilities, and unsuccessful planned turnarounds, have had a significant detrimental impact on the Debtors' business

operations and, as a result, on their financial condition. Paramount among these was the overheating of a boiler at the debtors sole facility that greatly reduced production. As a result, the debtor was unable to continue to fund its business and sought chapter 11 relief.

GB Holdings (NJ 05-42736)
The Debtor is a Delaware corporation, whose only significant asset is 2,882,938 shares of common stock, par value $0.01 per share (the ''Atlantic Holdings Common Stock") of Atlantic Coast Entertainment Holdings, Inc. (''Atlantic Holdings"), a Delaware corporation. The Debtor has no operating activities.

Kid Brands (NJ 14-22582)
Based in Rutherford, New Jersey, the Company is a designer, importer, marketer, and distributor of infant and juvenile consumer products.
The Company's long-standing and legacy contingent liabilities are the primary drivers of the Company's current situation. These liabilities resulted in excess cost, diversion of the attention of the Company's management, and stymied the Company's ability to attract more capital and funding. The company has also undergone litigation and various investigations into its operations. The company attempted to raise additional liquidity, but failed to find a suitor in the capital markets. As a result, the company sought relief in the capital markets.

Las Uvas Valley Dairies (NM 17-12356)
The Debtor operates a dairy near Hatch, New Mexico, and has related farm operations to produce feed for the dairy cattle and associated livestock. The Debtor is in the process of selling a major asset, namely, a farm near Columbus, New Mexico and substantial equipment located and used there, which sale will cause the substantial reduction of debt secured by mortgages and security interests against the Columbus farm.

Finlay Enterprises (NYS 09-14873)
Founded in 1887 as a mail order jeweler, Finlay is one of the leading retailers of fine jewelry in the United States. In 2008, licensed departments represented the bulk of Finlay's 658 locations and approximately 64 percent of its total sales.
Different restructuring initiatives at Macy's greatly damaged the debtors solvency, as their main revenue source is from department stores. A similar situation at Belk also hurt the debtor. Given the leverage required to operate Finlay's business, the loss of these significant revenue streams has negatively impacted the Debtors financial flexibility. The debtors began to pursue a sale, and these chapter 11 cases were commenced to preserve the value of the business.

Bombay Company (TXN 07-44084)
The Bombay Company (debtor) is a furniture retailer. Bombay began to experience difficulties in 2003, when approximately 50% of Bombay's real estate leases were scheduled to expire. In the face of this, Bombay attempted to change is real estate profile, introduce new lines and enter into children's furnishings. These changes resulted in the displacement of the debtors customer base. Despite turnaround efforts - lay-offs, closing offices, reduced advertising budget - the debtor has commenced chapter 11 proceedings to sell assets and secure additional funding.