Are Judges Randomly Assigned to Chapter 11 Bankruptcies? Not According to Hedge Funds

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Abstract

The random assignment of judges to court cases promotes fairness, minimizes forum shopping, and is routinely exploited for causal identification by economists. Analyzing U.S. corporate bankruptcy filings between 2010 and 2020, we provide the first evidence that assignment is not random, but predicted by the lending decisions of hedge funds. In our setting, judges can decide whether to convert a Chapter 11 bankruptcy to a Chapter 7 liquidation; while secured creditors have a preference for liquidation, unsecured creditors generally recover more under reorganization. Exploiting this distinction, we show that relative to secured hedge funds, unsecured hedge fund creditors are significantly less likely to be assigned a judge with a tendency to convert Chapter 11 cases. Effects are largest when the hedge fund has connections with the debtor's board or invested recently. Explaining these findings, we show judges are not assigned multiple large cases within a small time window, allowing hedge funds to influence the filing date and ultimately judicial assignment.

Keywords: Chapter 11 Bankruptcy, Random Assignment of Judges, Hedge Funds, Unsecured Creditors

JEL Classification Codes: G23, G33, G34, K22

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"The bankruptcy system is supposed to work for everyone, but in many cases it works only for the powerful." —House Judiciary Committee Chairman Jerrold Nadler, July 28th, 2021

1 Introduction

Since Frank (1931), researchers have recognized that judicial outcomes are subject to the biases of the ruling judge. To alleviate concerns of fairness, courts in both the US and abroad claim to assign judges to individual court cases randomly (Abrams et al., 2012; Shayo and Zussman, 2011). From a policy perspective, randomization promotes public confidence in the judicial process by limiting forum shopping and the individual influence of any individual judge. From an academic perspective, recent empirical research in economics and finance exploits the random assignment of judges to causally identify of a wide range of legal outcomes.[1]

This paper revisits the claim of randomized judicial assignment in the context of U.S. Bankruptcy Court. Our research is motivated by legal scholarship arguing that debtors in recent cases are influencing judicial assignments (Levitin, 2021a,b), as well as renewed interest in these issues from policy makers and the public (Merle and Bernstein, 2019; Randles, 2020). Yet, despite the arguments, the extent of non-random judicial assignment is far from clear. For instance, after contacting all U.S. Bankruptcy Courts, Iverson et al. (2017) found that only one court (the Eastern District of Wisconsin) reports assigning cases to judges non-randomly. In addition, a range of research including Chang and Schoar (2013), Bernstein et al. (2019b), Bernstein et al. (2019a), and Antill (2021) provides convincing evidence that debtor characteristics do not predict judicial assignments. Missing from this

[1] According to our own analysis, we count 19 papers published in the top economics journals (American Economic Review, Journal of Political Economy, and Quarterly Journal of Economics) since 2015 that exploit the random assignment of cases to judges. In addition, we count 5 papers published in the top finance journals (Journal of Finance, Journal of Financial Economics, and Review of Financial Studies) since 2018.

literature is any large-scale empirical evidence of non-random assignment. We aim to fill this gap.

To test the claim of randomized judicial assignment, we analyze the investments of active creditors made prior to a Chapter 11 bankruptcy filing. Past research finds active investors routinely influence a wide range of ex-post bankruptcy outcomes such as emergence and the structure of repayments (Ayotte et al.; Hotchkiss and Mooradian, 1997). Since bankruptcy judges have significant authority over these outcomes (Bris et al., 2006; Chang and Schoar, 2013), we argue investors have similar incentives to influence the assignment of cases. In addition, by focusing on investments made before the assignment of a bankruptcy judge, our technique is not suspect to standard critiques that predictability is merely an outcome of ex-post data mining; instead, in order for investors to systemically invest in firms that are later assigned a preferred judge, it must be possible to infer future judicial assignments.

Our analysis focuses on the investment decisions of hedge funds investing in private debt markets. Private debt investments have expanded dramatically as investments in private credit approached $600 billion globally by the end of 2016 and fund raising in private credit has grown 2.5 times the annual growth rate of private equity since 2010. Within this sector, distressed debt represents the largest investment strategy with 45% of all committed capital, and 43% of large corporate bankruptcies have one or more private debt funds acting as creditors Ivashina et al. (2016). As hedge funds are major investors in distressed firm debt (Aragon and Strahan, 2012), hedge funds routinely influence a wide range of bankruptcy outcomes including emergence and debt restructurings (Jiang et al., 2012; Lim, 2015). More generally, past research shows hedge funds benefit from seeking out and trading on government outcomes (Gargano et al., 2017). The prevalence of these investors allows us to explore a new channel of activism in the distress debt market not yet studied by the hedge fund or bankruptcy literature: activist influence in judicial assign-

ment process prior to filing.

We compare judges based on their individual propensity to convert Chapter 11 reorganizations to Chapter 7 liquidation similar to Bernstein et al. (2019b). While Chapter 11 results in a debtor developing a repayment plan for creditors, Chapter 7 leads to the debtor liquidating all assets (Bris et al., 2006; Chang and Schoar, 2013). Aggregating the judge conversion decisions for each judge over the prior three-year period, we develop a time-varying measure of a judge's propensity to convert a given case. We therefore evaluate whether filings involving a hedge fund creditor are consistently assigned a judge with a conversion rate different from filings without a hedge fund creditor. By focusing on the judge's past conversions, rather than the outcome of the current case, hedge funds must be influencing the assignment process itself and not the decisions of the judge following the assignment.

To identify non-random assignment, we exploit the fact that opposing regimes (reorganization vs. liquidation) lead to different repayment outcomes among creditors: secured creditors have a well-known liquidation bias (Ayotte and Morrison, 2009; Bergström et al., 2002; Vig, 2013), while unsecured creditors recover more under the repayment plan in reorganization (Antill, 2021; Bris et al., 2006). This distinction leads us to our empirical specification: we test whether unsecured hedge fund creditors are assigned a judge less likely to convert the case to a liquidation, relative to a similar debtor with a secured hedge fund creditor.

To begin our analysis, we collect data on the universe of U.S. Chapter 11 bankruptcy cases during 2010-2020 from court dockets. Second, we collect information on debtor characteristics including (i) industry, (ii) size, (iii) access to public equity markets, and (iv) location. Third, for each filing, we also collect information on the bankruptcy outcomes including the (i) assigned judge, (ii) filing date and district, and (iii) conversion decision. Finally, we collect information on hedge fund debt investments in distressed firms, includ-

ing debt terms, to determine whether a bankrupt firm had a hedge fund creditor act the time of filing.

Relative to other cases in the same year and court district, we estimate being assigned a judge with a 10 percentage point higher past conversion rate increases the likelihood a given case is converted to liquidation by 2.2 percentage points, equivalent to 22 percent of the mean conversion rate. To identify hedge fund creditors, we match cases to information on private debt agreements in the Preqin database. In total, we analyze nearly 20,000 case filings including over 500 cases with hedge funds acting as creditors at the time of bankruptcy filing.

In our baseline findings, we estimate that relative to a hedge fund acting as a secured creditor in the same court district and year, unsecured hedge funds are assigned a judge with a 3.3 percentage point lower mean conversion rate. As we estimate a mean judge conversion rate of 10%, we estimate a 33% reduction relative to the mean. The difference is statistically-significant at the one-percent level, holds after controlling for debtor characteristics, and is robust to excluding small- and medium-size debtors from the analysis. In addition, we find that unsecured hedge fund claimants are assigned a preferable judge more commonly when the hedge fund invested shortly before the bankruptcy filing, suggesting a portion of hedge funds choose to invest explicitly to influence the filing.

In order for creditor investments to predict future judicial assignment, creditors must be able to convince the debtor to file when optimal.[2] As equity holders and management have the same financial preferences for reorganization over liquidation as unsecured creditors (Eckbo et al., 2016; White, 1989), we argue it is only unsecured creditors that should be able to influence the time of filing. In line with this argument we find no evidence that filings involving a secured hedge funds are assigned a different judge than otherwise sim-

[2]Technically, a creditor may drive the debtor into an involuntary bankruptcy. However, given roughly 1% of bankruptcies are involuntary, they are not driving our findings.

ilar cases. Furthermore, among the unsecured creditors, we show the effects are greatest when the hedge fund is directly or indirectly connected to the board of directors of the debtor at the time of filing, providing further support for the role of communication between debtor and creditor. Last, we confirm our results continue to hold when excluding involuntary bankruptcies that are filed by the creditor.

There are three separate concerns with our analysis. First, it is possible are results are simply the result of noise. If this is the case, we should find a judge's future conversion rate (after controlling for the past conversion rate) is also correlated with hedge fund investments. However, we find no evidence of any correlation, suggesting hedge funds are explicitly influencing judicial assignment based on information regarding past information judicial outcomes. Second, it is possible the assignment process is non-random for certain districts and this is public knowledge; our results may then be driven by this subset of districts. However, focusing on the subset of districts that explicitly state random assignment within their district (according to Iverson et al. (2017)), we continue to find hedge fund investments predict assignment. Third, cases may be assigned at the office-level rather than the district-level; in this instance, our results are no longer evidence of non-random assignment. To test this hypothesis we include district-office-year fixed effects in our analysis and continue to find a relationship between hedge fund investments and assignment.

We next extend our analysis to an alternate bankruptcy outcome measure: the unsecured creditor recovery rate according to the confirmed plan. While we observe this measure for only a subsample of the full dataset, this measure allows us to examine variation within filings that are ultimately reorganized. As before, we estimate each judge's unsecured creditor recovery rate for previously assigned cases and continue to find (i) the past recovery rates of a given judge predict future recovery rates, (ii) unsecured hedge funds are far more likely to be assigned a judge with a high past unsecured recovery rate, and

(iii) the coefficient is similar for the subsample of districts that explicitly state random assignment.

The results above provide convincing evidence hedge funds can predict judicial assignment; we next demonstrate judicial assignment is also predictable to the econometrician. Assuming overseeing a large corporate case is time-consuming (Iverson et al., 2017), we argue courts may be less inclined to assign multiple large cases to the same judge within a narrow window. In line with this theory, we provide new evidence that large bankruptcy filings are negatively serially-correlated; being assigned a large bankruptcy in the previous week decreases the likelihood of being assigned a large bankruptcy filing this week. In contrast, small filings are not predictable based on recent judicial assignments. In addition, we find evidence that unsecured hedge fund creditors appear to exploit these patterns: while the filing dates of cases with unsecured hedge fund creditors can be partially explained by the recent case filings, similar cases of secured hedge fund creditors do not exhibit these same patterns. Overall, the results suggest econometricians can predict judicial assignment, just like hedge funds.

Moving forward, we believe there are two potential policies that can alleviate these issues. The first, and simplest, is for policy makers to develop a truly randomized process. However, the obvious downside of this proposal is that judges at times by inundated with large filings, impacting judicial outcomes (Iverson, 2018; Müller, 2022). Alternatively, and following the suggestions of Iverson et al. (2020), policy makers can instead increase the number of bankruptcy judges. In this scenario, creditors will lose their predictability powers even if assignment is not fully randomized. Policy makers intent on a more fair judicial system should consider both proposals.

To our knowledge, we are the first to provide evidence that judges are not necessarily randomly assigned to court cases. In addition, we believe we make contributions to two separate literatures. First, we contribute to past findings outlining the role of credi-

tor activism in corporate distress (Chava and Roberts, 2008; Nini et al., 2009, 2012). More specifically, Hotchkiss and Mooradian (1997), Jiang et al. (2012), and Lim (2015) has already demonstrated hedge funds appear to influence bankruptcy outcomes:[3] our results instead provide a novel channel to explain *how* hedge funds can influence bankruptcy outcomes. Second, we add to past research detailing the forecasting abilities of financial institutions (Gompers and Metrick, 2001; Nofsinger and Sias, 1999), especially hedge funds (Cao et al., 2013; Chen and Liang, 2007), based on their respective investment strategies. Our results expand this literature by demonstrating these same techniques allow us to understand whether government and legal policies are also predictable.

2 Methodology

2.1 Hypothesis Development

Bankruptcy is the legal process to resolve insolvency in the economy. Since 2000, there have been on average 35,000 U.S. corporate bankruptcies annually with a peak of over 60,000 in 2009. Bankruptcies can be either voluntary, where the debtor files the petition for protection, or involuntary, where the creditor files the petition, though only one percent of filings are involuntary. There are a total of 94 separate court districts, and parties can choose the district based on (i) place of incorporation, (ii) headquarters, or (ii) business revenues. Once a firm files for bankruptcy, the case is assigned to one of bankruptcy judges in that court district.

The U.S Bankruptcy code for corporations includes a role for both reorganization (Chapter 11) and liquidation (Chapter 7). Under Chapter 7, which composes roughly two-thirds

[3]For instance, when hedge funds are unsecured creditors, bankruptcies are more likely to (i) emerge as a standing firm, (ii) deviate from Absolute Priority Rule, and (iii) retain key employees.

of corporate bankruptcies, the assets of the firms are liquidated and the proceeds are used to pay creditors. The Chapter 7 process is largely overseen by an assigned trustee, who manages the payment of creditors. In contrast, firms filing Chapter 11 undergo a bargaining process between the debtor and creditors to restructure the firm and debt obligations. According to own analysis, Chapter 11 filings compose over 90% of all public firm bankruptcies.

Bankruptcy judges have significant influence on Chapter 11 bankruptcy outcomes, largely due to their authority to convert a Chapter 11 reorganization to Chapter 7 liquidation. In these instances, either the creditor or the assigned trustee files a petition to convert the case; the judge will then approve the petition if he/she believes the value of the debtor's assets are greatest under liquidation. Estimates from Bernstein et al. (2019b) find 40% of all Chapter 11 filings are converted by the assigned judge based on filings from 1992 to 2005. Antill (2021) argues that many conversions to liquidations are highly inefficient as they lead to lower recovery rates among creditors. Specifically, he finds that a statistician hired to compare the expected potential recovery rates across both regimes (reorganization and liquidation) and choose the better option would improve average recovery, across all cases, by 12 cents per dollar of debt claim.

These results suggest judges often make costly mistakes in the bankruptcy process, reducing recovery rates. A related concern is that judges vary in their decisions. Technically, judges are subject to a common criteria to decide whether to approve a conversion; however, in practice, these criteria appear largely up to individual interpretation. For instance, Bris et al. (2006) show that judge fixed effects account for 10% of conversion decisions. Similarly, (Bernstein et al., 2019b) estimates the conversion rate separately for each bankruptcy judge and find that a one standard deviation in the conversion rate increases the likelihood of conversion by 7.5 percentage points compared to the unconditional propensity of 40.7 percentage points.

As judges differ in their inclination to convert a Chapter 11 to liquidation, creditors will have a preference for the assignment of one judge over another. However, this preference largely depends on whether the creditor is secured or unsecured. Finance researchers have long recognized that liquidation is optimal for secured creditors when the underlying collateral is more valuable than the partial debt repayments (Moore et al., 1993), Pulvino (1998), and Ayotte and Morrison (2009). In contrast, unsecured creditors benefit from reorganizations: for instance, Bris et al. (2006) estimate an unsecured recovery rate of only 1.1% under Chapter 7 liquidation compared to a 52% recovery rate for unsecured debt under Chapter 11.[4] Similarly, (Ivashina et al., 2016) and Wang (2011) estimates creditors involved in filings converted to liquidation recover 22-25% less than creditors involved in reorganizations.

Despite the benefits of being assigned a creditor-friendly judge, it is far from obvious creditors can influence judicial assignment within a court district. In fact, past research has argued assignment is fully-randomized and, therefore, unpredictable. For instance, Iverson et al. (2017) contacted all U.S. Bankruptcy Courts regarding the assignment process; of the 81 courts that responded, only one court (the Eastern District of Wisconsin) reports assigning cases to judges non-randomly. Overturning these arguments and proving judicial assignment is not random is complicated for two reasons. First, a number of papers including Chang and Schoar (2013), Bernstein et al. (2019b), Bernstein et al. (2019a), and Antill (2021) provides convincing evidence that assignment is not based on observable measures as debtor characteristics fail to predict judicial assignments. Second, even if some characteristics do predict assignments, any correlation may simply be an outcome of ex-post data mining.

One path forward is to instead test whether highly-sophisticated and active investors may be able to predict these assignments for their own financial benefit. The benefit of this

[4]While these numbers are for all Chapter 7 filings, rather than conversions, recovery rates for Chapter 7 conversions are not statistically-difference from pure Chapter 7 cases.

strategy is that investors must be able to predict bankruptcy assignments ex-ante. There are three reasons to believe hedge funds may be among this set of sophisticated investors. First, research has already found hedge funds hold superior predictive powers (Cao et al., 2013; Jiang et al., 2007), largely explaining their superior performance. More recently, Gargano et al. (2017) finds hedge funds benefit from access to information from federal outcomes through the Freedom of Information Act. Second, hedge funds are highly active in the bankruptcy process, impacting a variety of outcomes including the likelihood of emergence of the firm (Jiang et al., 2012). Third, hedge funds trade frequently prior to the filing in an effort to concentrate their ownership and influence on bankruptcy outcomes including higher recovery rates for claimants (Ivashina et al., 2016).

Even if sophisticated creditors can predict judicial assignment, this ability has limited benefits if they cannot also influence the timing of the filing to increase the likelihood of a creditor-friendly assignment. Given 99% of corporate bankruptcy filings are voluntary, the exact timing of the bankruptcy filing is technically decided by the debtor, not the creditors, limiting their influence. Creditors can therefore only influence the timing indirectly by encouraging the debtor to file.

In this environment, we should expect creditors to have power in influencing bankruptcy timings only when their preferences align with the debtor. As equity holders are paid last, even after unsecured creditors, they have strong financial preferences for reorganization (White, 1989). In addition to owning equity, incumbent CEOs also suffer substantial compensation loss under liquidation, furthering increasing their preference for reorganization (Eckbo et al., 2016). We should therefore expect that only unsecured creditors that can influence the timing of the filing, while secured creditors are limited in their abilities. Collectively, these arguments provide us with two testable hypotheses:

Hypothesis I: Relative to similar cases in the same court district, Chapter 11 filings involving an unsecured hedge fund creditor are less likely to be assigned a judge with strong inclinations to convert the case to Chapter 7.

Hypothesis II: Relative to similar cases in the same court district, Chapter 11 filings involving a secured hedge fund creditor are equally likely to be assigned a judge with strong inclinations to convert the case to Chapter 7.

2.2 Empirical Specification

We next develop our empirical methodology to test the hypotheses outlined above. Focusing exclusively on firms entering bankruptcy, our baseline specifications allows us to test whether a bankrupt firm that borrows unsecured debt from a hedge fund is assigned a different judge than a bankrupt firm with a hedge fund acting as a secured creditor. To measure differences across judges, we estimate the conversion rate, or the fraction of Chapter 11 corporate bankruptcy cases assigned to a given judge that are converted to Chapter 7 liquidation. There are two benefits to explicitly distinguishing between hedge funds acting as unsecured vs. secured creditors. First, while secured hedge fund creditors will have a bias towards liquidation, unsecured hedge fund creditors will benefit from the reorganization. Second, as equityholders and managers benefit from reorganization over liquidation (similar to unsecured creditors), we should expect it is only unsecured creditors that can influence the timing of the filing. Therefore, our baseline regression is:

$$\begin{aligned} \text{Judge Conversion Rate}_{it} &= \beta_1 \text{Unsecured Hedge Fund}_{it} + \beta_2 \text{Hedge Fund}_{it} \\ &+ \text{Court District FE} \times \text{Year FE} \\ &+ \text{Asset Size FE} + \text{Liability Size FE} + \eta_{it} \end{aligned} \tag{1}$$

where i denotes each filing and t denotes the year. The dependent variable in our linear regression is then $Judge\ Conversion\ Rate$. At each date, we estimate the conversion rate over the prior three-year period.[5] As our outcome variable is based on past judicial outcomes and not the current case, any relationship between dependent and independent variables cannot be explained by activist hedge funds influencing the judge's decisions on the current case. In this way, our focus differs from Jiang et al. (2012) and Lim (2015), who find hedge funds influence the outcomes of the case following the assignment of the judge.

The principal dependent variable is a simple binary variable, $Unsecured\ Hedge\ Fund$, which denotes at least one unsecured creditor prior to filing was a hedge fund. Based on our first hypothesis, we expect the prevalence of an unsecured hedge fund creditor will lead to the assignment of a judge with a lower conversion rate, or $\beta_1 < 0$.

In addition, we directly control for the influence of any hedge fund creditor, denoted $Hedge\ Fund$ in the equation, which denotes at least one creditor (secured or unsecured) prior to filing was a hedge fund. By including this control, we therefore estimate the additive influence of an unsecured hedge fund creditor relative to a secured hedge fund creditor. Assuming filings with unsecured hedge funds are similar to filings with secured hedge funds, a fact we confirm below, we can argue the primary difference between any effect is

[5] In additional robustness tests, we introduce an alternate dependent variable, which measures a judge's mean unsecured creditor recovery rate for prior cases according to the approved reorganization plan.

due to financial incentives of secured creditors relative to unsecured creditors. Based our second hypothesis, we expect the prevalence of a secured hedge fund creditor will have minimal effect on the judicial assignment, or $\beta_2 = 0$.

As we confirm in the analysis below, debtors with hedge fund creditors are different from other debtors. However, because our sample includes both public and private borrowers, we are unable to include a full set of potential control variables. Instead, we include two sets of controls. Second, as hedge funds disproportionately invest in larger firms, we control for debtor size by including both (i) liability size fixed effects and (ii) asset size fixed effects. We create size fixed effects by splitting borrowers into ten bins. In addition, as judges are assigned at the district-level, we include court district fixed-effects interacted with filing year fixed effects. Last, we cluster errors at the level of the court district-year.

3 Data

3.1 Data Sources

3.1.1 Debtor Data

To test the hypotheses developed above, we first collect information on bankruptcy filings from two primary sources: (i) BankruptcyData.com and (ii) the Federal Justice Center Integrated Database. BankruptctyData provides both academics and practitioners access to business bankruptcy filings. Subscribers can query and export data from the database of business bankruptcy filing information. For our purposes, the BankruptcyData provides information on: (i) docket number, (ii) assigned judge, (ii) whether the debtor is public, (iv) debtor revenue, and (v) debtor NAICS industry.

Missing from this data is information on the outcome of the case. To overcome this challenge we collect additional information from the Federal Justice Center (FJC). The FJC, under an arrangement with the Administrative Office of the U.S. Courts (AOUSC), provides public access to the Integrated Database (IDB). The FJC receives regular updates of the case-related data that are routinely reported by the courts to the AOUSC. The FJC then post-processes the data, consistent with the policies of the Judicial Conference of the United States governing access to these data, into a unified longitudinal database, the IDB. For our purposes, the IDB provides information on whether the Chapter 11 reorganization was converted to a Chapter 7 liquidation. In addition, we collect information on the unsecured creditor recovery rate according to the confirmed reorganization plan. Last, we collect information on debtor assets and liabilities.

For each database above, we collect all Chapter 11 corporate bankruptcy cases filed between 2007 and 2020. We then match case filings from these two datasets using (i) docket number, (ii) filing date, and (iii) court district. While our empirical analysis detailed below focuses on cases filed between 2010 and 2020, we also collect information on cases filed in 2007-2009 to estimate each judge's conversion-rate (and unsecured recovery rate) over the prior three years.

3.1.2 Creditor Data

Up to the this point, we have no information on the creditors involved in each bankruptcy. Therefore, we match each bankrupt firm to its list of hedge funds acting as Creditors from the Preqin Private Debt database. Preqin collects deal-level data through direct contact with industry professionals including fund managers, investors, and service providers. In addition to firms self-reporting information, Preqin's research analysts also monitor regulatory filings, make FOIA requests, and track industry news sources on a daily basis. We match the Preqin data to the filings using firm name and headquarter address. Preqin pro-

vides us creditor-level information, specifically whether the bankrupt firm was provided credit by a hedge fund and, if so, the characteristics of the debt contract.

For each filing with a hedge fund creditor, we match the filing to all other bankruptcies based on assets, liability, industry, and headquarter location. After dropping non-matched observations, our total sample consists of 17,125 unique cases of chapter 11 filings including 569 cases with a hedge fund acting as creditor at the time of bankruptcy filing. If there is more than one debt investment with a hedge fund before bankruptcy (i.e., more than one hedge fund invested in debt claims of a company before bankruptcy, or one hedge fund invested multiple times before bankruptcy) we include the hedge fund investment closest to the filing date. We choose to focus on one hedge fund investment per bankruptcy to avoid biases in our analyses due to duplicate observations of bankruptcies.

Our analysis identifies creditors of bankrupt firms from the Preqin database. However, one concern with this approach is that we cannot confirm the creditors remain invested with the borrower at the time of the bankruptcy filing. To alleviate this issue, we collect the full creditor list for a subsample of the Chapter 11 bankruptcies in our dataset. Specifically, we focus on the set of corporate bankruptcies filed in 2019-2020, the final years of our sample; we choose to focus on a subsample as this data is collected directly from bankruptcy dockets and is costly to collect for the full dataset. After collecting the data, we then match all creditors from the bankruptcy docket to the hedge funds available from Preqin based on firm name and address. We estimate that 65% of the hedge funds invested in the borrower prior to the bankruptcy filing remain invested at the day of filing.

3.2 Filings with and without Hedge Fund Creditors

We first compare the industrial composition of debtors in our data in (Figure 1). We find non-hedge fund creditors disproportionately invest in distressed firms in the financial sec-

tor. This discrepancy is largely explained by the underrepresentation of hedge funds as creditors in financial institutions during and shortly after the financial crisis. We don't find notable differences in industries of bankruptcies between secured and unsecured hedge fund creditors, as shown in Panel B.

—Please see Figure 1—

Next, Figure 2 shows that the vast majority of our observations are clustered in a few court districts. This is valuable for our empirical analysis, given our specification only compares filings within the same court district and year. Specifically, the effects we find from hedge fund involvement are actually coming from mainly Delaware, New York - Southern, Texas - Northern, Texas - Southern, and Virginia Eastern. We find that bankruptcies with unsecured hedge funds are filed in Delaware to a larger extent than bankruptcies with secured hedge funds (see Panel B).

—Please see Figure 2—

Descriptive statistics of observable company characteristics at Chapter 11 filing date are reported in Table 1. Panel A shows statistics of bankruptcies with and without hedge funds. The mean firm with a hedge fund creditor at bankruptcy filing has \$124 million in liabilities, \$53 million in assets, \$83 in unsecured claims. Both the $t-$statistic and the Wilcoxon statistic indicate that hedge funds target larger distressed firms and thus are part of bigger cases as compared to bankruptcies without a hedge fund creditor. Observable company characteristics are limited since the majority of these companies are private: 14% of the firms with a hedge fund creditor in the sample are public compared to 3% of firms without a hedge fund creditor.

—Please see Table 1—

Panel B of Table 1 compares bankruptcies with unsecured and secured hedge funds. The mean firm with an unsecured hedge fund creditor at bankruptcy filing appears to be slightly smaller than the mean firm with a secured hedge fund creditor, though these differences are only statistically-different in the case of liabilities. The percentages of investments in public companies are basically identical between secured and unsecured hedge funds.

The summary statistics above suggest that there remains significant differences between filings involving a hedge fund creditor and those without a hedge fund creditor. However, this does not invalidate our analysis as our specification primarily compares filings involving hedge funds, but differ in whether the hedge fund is secured or unsecured. As shown in Table 1 and Figure 1 the mean firm appears to be similar with unsecured and secured hedge fund creditors. The limited differences between filings with secured versus unsecured hedge fund creditors further validates our specification.

3.3 Hedge Fund Investments in Bankrupt and Non-Bankrupt Firms

In addition to comparing bankruptcy filings between unsecured and secured hedge fund creditors, it is valuable to examine the differences between hedge funds that could be matched to bankruptcies and those which could not be matched to a filing.

Table 2 compares the the hedge funds included in Preqin that could be matched with Chapter 11 bankruptcy cases to hedge funds that did not invest in a bankrupt firm. We find minimal differences in the distribution of investment times between the included and excluded hedge fund data. Since the market of private debt funds grew rapidly since 2010, we see an overall increase in debt investments in more recent years. Most of these deals are large in size, similar to Jiang et al. (2012) who report that hedge funds are among the largest creditors at filing.

We find a slightly higher number of deals where the hedge fund is an unsecured claimant than in the matched sample. A large fraction of hedge funds acting as unsecured claimants in these bankruptcies is in line with Lim (2015) who finds that a majority of hedge funds obtain a creditor position by purchasing unsecured claims. Looking at raw numbers we see that hedge funds invest closer to the bankruptcy filing. In more than half of the bankruptcy cases with hedge fund involvement hedge funds invested no more than 5 years prior to bankruptcy filing.

—Please see Table 2—

3.4 Judge-Specific Conversion Rate

Our analysis tests whether bankruptcies with unsecured hedge fund creditors are assigned judges less likely to convert the case to Chapter 7 relative to bankruptcies with secured hedge fund creditors. Implicit in this hypothesis is that the past conversion rate of a given judge is predictive of the likelihood of future conversions. We test this assumption below.

For all Chapter 11 filings between 2010 and 2020, we estimate whether the conversion rate of the assigned judge over the prior three years predicts the likelihood of conversion to Chapter 7. As judges are assigned at the district-level, we include court district fixed-effects interacted with filing-year fixed effects. In Column (2) we also control for firm size based on fixed effects for liabilities and assets.

The results are presented in Panel A of Table 3. According to columns 1 and 2, we find a 10 percentage-point increase in the past three-year conversion-rate predicts a 2.2 percentage-point increase in the likelihood the judge converts a given current case. The relationship is statistically-significant as we estimate a T-statistic of 6.1. For comparison, Bernstein et al. (2019b) estimate a 10 percentage-point increase in a judge's conversion rate

increases the likelihood of converting a given case by 5.8 percentage points. The difference between these estimates is likely driven by different time samples as Bernstein et al. (2019b) focuses on the period 1992-2005 prior to the implementation of the Bankruptcy Abuse Prevention and Consumer Protection Act of 2005 (BAPCPA).

We next confirm our results hold even when focusing on larger borrowers more likely to have hedge fund creditors. In column 3, we focus on the subsample of borrowers with liabilities above the median (estimated at $600,000 for our sample), while in column 4, we focus on firms with assets above the median size (estimated at $400,000). For this subsample of filers, the coefficient actually increases slightly: we estimate a 10 percentage point increase in the past conversion-rate predicts a 2.7 percentage-point increase in the likelihood the case is converted.

—Please see Table 3—

4 Results

We split our results into eight sections. First, we investigate whether filers with unsecured hedge fund creditors are assigned judges less likely to convert the case to Chapter 7. Second, we consider alternative assignment mechanisms. Third, we evaluate alternative measures of judge conversion rates. Fourth, we evaluate heterogeneity in effects across filings. Fifth, we extend the analysis to an alternate bankruptcy outcome: unsecured creditor recovery rates according to the bankruptcy plan. Sixth, we verify the robustness of our findings. Seventh, we confirm judge assignment is indeed predictable based on the recent past assignment of large bankruptcy cases. Eighth, we test whether hedge funds use the predictability of judge assignments to time the date of filing.

4.1 Baseline Analysis

Given the past conversion rate of a judge is highly predictive of future decisions, we can turn to our research question: are filings with hedge fund creditors assigned more creditor-friendly judges? As we can observe information about the debt tranche from the Preqin database, we split the hedge funds between secured and unsecured claimants. As pointed out by Jiang et al. (2012) and Lim (2015), unsecured creditors have a strong preference for reorganization because their recovery rates are low following the payment of secured creditors in liquidation.

We present our findings in Panel A of Table 4. We set $Hedge\ Fund$ equal to one if at least one creditor is a hedge fund at the time of filing. We set $Unsecured\ Hedge\ Fund$ equal to one if at least one unsecured creditor is a hedge fund. In column 1, we include court district fixed effects interacted with year fixed effects. Relative to secured creditors, we estimate a filing with an unsecured hedge fund creditor is assigned a judge with a 3.3 percentage-point lower conversion rate. The result is statistically-significant with a T-statistic of 3.77. In column 2, we also include fixed effects for firm asset size and liability size and find similar results.

—Please see Table 4—

Lastly, it's important to note that our results hold regardless of the control firms included in the analysis. Since firms with hedge funds creditors are shown to be large (see Table 1), we confirm our results continue to hold after excluding small borrowers as measured by asset or liabilities below the median in columns 3 and 4. We again estimate that relative to secured creditors, filings with an unsecured hedge fund creditor are assigned a judge with a 3.3 percentage-point lower conversion rate.

Overall, the results support our first hypothesis: relative to filings involving secured hedge fund creditors, filings involving unsecured hedge fund creditors are assigned judges less inclined to convert a case to liquidation. We next test our second hypothesis: secured hedge fund creditors are assigned similar judges as similar filings not involving any hedge fund as a creditor. According to columns 1 through 4 of Panel A of Table 4, we estimate secured hedge funds are assigned a judge with a slightly higher (rather than lower) inclination to convert a case, though no effects are statistically-insignificant at the 10%-level. Therefore, our results support this second hypothesis.

4.2 Assignment Mechanisms

4.2.1 Only Including Courts that Explicitly Claim Random Assignment

The results above suggest hedge fund investments predict future case assignments. This finding is only surprising if courts explicitly state their assignment is random. Our next analysis focuses on the subset of court districts that explicitly report randomizing judicial assignment at the level of the court district. We identify these court districts from Iverson et al. (2017), who contact court districts regarding details of their assignment process. By focusing on this subset of court districts, our sample size declines to 11,043.

—Please see Table 5—

We present our finding in Panel A of Table 5. Column 1 includes court district-by-year fixed effects, while column 2 also includes borrower size fixed effects. We estimate that relative to other filings involving a hedge fund, filings involving an unsecured hedge fund are assigned a judge with a 2.3 percentage-point lower past conversion rate. While the coefficient is smaller than estimated in Panel A of Table 4 (3.3 percentage-points), is remains statistically-significant at the 1%-level. In columns 3 and 4, we focus on borrowers

above the median size (based on liabilities or assets); again the effect remains statistically-significant. Overall, the results remain among districts that claim random assignment.

4.2.2 Controlling for Filing Office within Districts

A related explanation for our results is that the court districts state their assignment process occurs at the court district-level; however, in actuality, the filing office still influences the assignment process. A bankruptcy is filed within a specific office with a court district; there are a total of 278 offices among the 93 districts included in our analysis. To test this hypothesis, we redo our baseline analysis, but include court district-by-office-by year fixed effects to explicitly compare bankruptcies filed within the same office.

—Please see Table 6—

We present our findings in Panel A of Table 6. According to columns 1 and 2, we estimate that relative to other filings involving a hedge fund, filings involving an unsecured hedge fund are assigned a judge with a 1.5 percentage-point lower past conversion rate, and the effects remains statistically-significant at the 1%-level. In columns 3 and 4, we focus on borrowers above the median size (based on liabilities or assets) and the coefficient declines slightly to 1.2 percentage points. Overall, hedge fund investments continue to predict judicial assignment even when comparing filings within the same district office.

4.3 Alternate Measures of Conversion Rates

4.3.1 Future Conversion Rates

Implicit in this analysis is that hedge funds can observe recent judicial conversion rates and will then influence judicial outcomes based on these observations. If this interpretation is

correct, a judge's future decisions will not be correlated with hedge fund investments as future decisions are by definition not observable in the present. We test this argument in Panel B of Table 9.

To begin, we must first account for the finding presented in Table 3 that judge's differ in their propensity to convert cases. We therefore regress each judge's conversion over the three future years on the judge's conversion over the past three years to estimate the residual or unexplained component of future conversion rates. This residual is now our measure of future 3-year conversion rates for a given judge that are not explained by past 3-year conversion rates. Using our standard framework, we then estimate whether filings involving an unsecured hedge fund investor are assigned judges with a different future conversion rate than similar filings with a secured hedge fund investor. As before, we continue to include court district fixed effects interacted with year fixed effects, as well as fixed effects for asset and liability size. Across all specifications, we find no evidence that hedge fund investments (secured or unsecured) are correlated with the future outcomes of their assigned judge. The results support the theory that hedge funds are influencing case assignments based on their information regarding past judicial outcomes.

4.3.2 Long-Term Conversion Rates

We estimate a judge's propensity to convert Chapter 11 bankruptcy to Chapter 7 based on their mean conversion rate over the prior three-year period. By focusing on prior cases, we are observing the same data available to hedge funds at the time of the filing. Focusing on a longer time-horizon (such as a five-year window) provides additional observations of case outcomes, but will be biased if judge propensities change over time, For robustness, we confirm all results hold when we estimate judge conversion rates over the prior five-year period. We present our findings in Panel C of Table 9; our results are quantitatively-similar to the results in our baseline analysis using three-year conversion rates.

4.4 Heterogeneous Effects Across Filings

4.4.1 Do the Findings Differ Based on Time since Origination?

Assuming hedge funds invest in distressed firms in order to influence the filing date (and therefore the bankruptcy outcome), we should find a stronger relationship among more recent investors. We test this hypothesis below. We begin by excluding all filings with secured hedge fund creditors. We then split the remaining filings with unsecured hedge fund creditors into two equal groups: cases with a hedge fund investing just prior to the filing date (below the median time until filing) equal one and cases with a hedge fund investing long before the filing date (defined as above the median time until filing) are set to zero. We set $Unsecured\ Hedge\ Fund\ just\ before\ filing$ equal to one if at least one unsecured hedge fund creditor invested just prior to the filing date (below the median time until filing). We set $Hedge\ Fund$ equal to one if at least one creditor is a hedge fund at the time of filing. We then estimate which group of unsecured hedge funds is more likely to be assigned a favorable judge.

We present our findings in Panel A of Table 7. Column 1 includes court district fixed effects interacted with year fixed effects, while column 2 also includes fixed effects for the firm's assets and liabilities. Across both specifications, we estimate unsecured hedge fund creditors investing shortly before the filing date are assigned a judge with a 1.7 percentage-point lower conversion rate compared to unsecured creditors investing long before filing. This difference continues to hold when we exclude smaller borrowers as measured by liabilities (column 3) or assets (column 4). Overall, the findings align with the hypothesis that hedge funds with more recent investments are more likely to influence judicial assignments.

—Please see Table 7—

To confirm our interpretation is correct, we conduct a similar analysis of secured hedge fund creditors. We first split secured hedge fund creditors into two equal groups based on the time between the initial debt investment and the bankruptcy filing date. We then evaluate the assignment of judges to secured hedge fund creditors in Panel B of Table 7. We find no evidence filings with a secured hedge fund creditors are assigned a different judge than filings without a hedge fund creditor, regardless of when the initial investment was first made. The results again confirm our second hypothesis that secured creditors are limited in their abilities to influence the timing of filing.

4.4.2 How Relevant are Relationships between the Creditor and Debtor?

Thus far, we find evidence that primarily unsecured creditors, rather than secured creditors, influence judicial assignment. We argue this distinction is due to the fact that (i) unsecured creditors have the same preferences for reorganization as debtor managers and equity holders, and (ii) the debtor chooses the exact timing of the filing. If this interpretation is correct, our results should be stronger when unsecured creditors can more readily influence the choices of the debtor.

We test this theory by evaluating how both direct and indirect relationships between the hedge fund creditor and debtor impact judicial assignment outcomes. We identify direct relationships as filings where the hedge fund holds a seat on the debtor's board of directors prior to the date of filing similar to Gilson (1990) and Kaplan and Minton (1994).

We observe board composition from BoardEx, which provides details on public company boards and and senior managers. Given BoardEx does not include information on private firm, our analysis is restricted to hedge funds investing in public companies. For each hedge fund creditor in our sample, we determine whether the hedge fund holds a direct or indirect connection with the board of directors as defined above. Among public

firm debtors, roughly half have are directly connected to the hedge fund.

—Please see Table 8—

We present our findings in Panel A of Table 8. When focusing on all cases, we estimate that relative to a similar unsecured hedge fund, unsecured hedge funds with a seat on the debtor's board are assigned a judge with a 0.4 percentage-point lower conversion rate, though the effect is not statistically-significant. However, when focusing exclusively on the subset of larger cases (based on liabilities or assets) in columns 3 and 4, we estimate a difference of 1.2-1.5 percentage points and the effect is statistically-significant. The smaller coefficient among smaller firms is likely due to small sample size as we can only identify board connections for public firms. In contrast, we find no evidence these dynamics are present among secured creditors according to Panel B. Overall, the results provide further evidence for the role of relationships between unsecured creditors and debtors in driving our findings.

4.5 Recovery Rate Analysis

One concern with the analysis thus far is that we focus exclusively on a single Chapter 11 bankruptcy outcome, conversion to Chapter 7. As discussed above, we focus on conversion rates as (i) judges have sole authority to convert cases and (ii) conversions have substantial impacts on creditor recoveries. However, the limitation with this strategy is that judges can influence case outcomes even when the case is not converted to liquidation. In this next section, we instead consider an alternative measure: the unsecured creditor recovery rate for reorganized cases. Our measure is collected from the Federal Justice Center (FJC) Integrated Database (IDB) and measures "the percentage dividend to be paid to the general class of unsecured debtors under the confirmed plan". We note the unsecured creditor

recovery rate is only available for 3,174 of the 48,047 filings in our full dataset; we estimate a mean recovery rate of 20% and a median rate of 11%. Following the outline above, our analysis follows in two steps.

First, we confirm a judge's mean recovery rate in prior cases is predictive of the recovery rate for future cases. Similar to our conversion analysis, we estimate a judge's mean recovery rate over cases in the prior three years. We present our findings in Panel B of Table 3. According to the second column, we estimate a 10 percentage-point increase in the past recovery rates predicts a 2.78 percentage-point increase in the recovery rate of a current filing and the results is statistically-significant with a T-statistic of 2.22. This relationship is larger in both magnitude and statistical-significance when we focus exclusively on larger corporate filers (as measured by assets and liabilities).

Second, we evaluate whether unsecured hedge fund creditors are assigned a creditor-friendly judge relative to a secured hedge fund creditor. We present these results in Panel B of Table 4. According to the second column, we estimate that relative to secured hedge fund creditors, hedge funds acting as unsecured creditors are assigned a judge with a 24 percentage-point higher past recovery rate and the result is statistically-significant with a T-statistic of 2.0. When we focus on the subsample of larger borrowers (as measured by assets or liabilities above the median), we estimate an effect of 28-29% higher recovery rate and the result is statistically-significant at the 1%-level.

Third, we test whether our results continue to hold among the subsample of districts that explicitly claim random assignment at the district-level. We present these findings in Panel B of Table 5. We estimate that relative to secured hedge fund creditors, hedge funds acting as unsecured creditors are assigned a judge with a 27-30 percentage-point higher past recovery rate and the result is statistically-significant at 0.05-level. Results are similar among the larger borrowers.

4.6 Robustness Tests

4.6.1 Controlling for Debtor Industry

The majority debtors included in our analysis are privately-held firms. We include these firms to increase the sample size. However, including these firms comes at a cost: we are unable to observe many characteristics of the borrower. Instead, our analysis includes only a small number of controls in the empirical specification: fixed effects for liability size and asset size. To overcome this concern, we next include industry fixed effects, where each fixed effect denotes a two-digit NAICS code. The disadvantage of controlling for industry is that we are only able to observe this measure for borrowers beginning in the middle of 2013, substantially decreasing the number of bankrupt firms in our sample to 10,301. Despite the decrease in sample size, we are able to replicate the results outlined above when also control for debtor industry. We present our findings in Panel A of Table 9. Results remain qualitatively unchanged to Table 4.

—Please see Table 9—

4.6.2 Excluding Involuntary Bankruptcies

As previously discussed, we argue hedge funds influence the timing of the filing by working with the managers and equity holders of the debtor. This is different from the hedge fund influencing the timing of the filing directly through an involuntary filing. We argue involuntary bankruptcies are unlikely to be driving our results as only 1% of the filings in our sample are involuntary. To confirm this argument we replicate our findings after excluding all involuntary bankruptcies and present our findings in Panel B of Table 9. Results remain nearly unchanged to findings presented in Table 4.

4.7 Serial Correlation of Cases

The results above indicate hedge funds can predict judicial assignments; we next test whether we, as econometricians, can similarly predict the assignment process. Specifically, we hypothesize a given judge is less likely to be assigned a large bankruptcy if they were recently assigned a prior large bankruptcy. This argument is motivated by recent evidence documenting the significant time and effort required of judges assigned to public firm bankruptcy filings (Iverson et al., 2017). We conduct this test under a piecewise exponential multiple-failure survival framework. We choose this specification rather than a proportional hazard model with fixed effects as standard logistic regression models are subject to incremental parameter bias. We choose to subdivide time at the weekly-level and assume that the baseline hazard is constant in each week, leading to a piecewise exponential model. The specification is therefore:

$$h_{ijt} = h_t exp\Big\{\text{Large Case}_{ijt-1}\beta + \text{Court District FE} \times \text{Year FE} + \text{Judge FE} + \text{Liability Size FE} + \text{Asset Size FE}\Big\}, \tag{2}$$

where h_{ijt} is the hazard for Chapter 11 filing i assigned to judge j in week t. Each failure event is then an assignment to judge j so that each filing is at risk from the first to the last case of judge j in our sample. As shown in section 4.7, we report coefficients instead of hazard ratios by estimating the log-linear model: $log\ h_{ijt} = log\ h_t + \boldsymbol{x}'_{ijt}\boldsymbol{\beta}$.

In our specification, $exp\Big\{\text{Large Case}_{ijt-1}\beta\Big\}$ is the relative risk for assignment when the judge was assigned a large case in the prior week, relative to the baseline rate in that week. We define $Large\ Case$ as a binary variable equal to one if debtor in the judge's prior case held assets/liabilities above the median/75th/90th percentiles. Under the hypothesis

that judges are less likely to be assigned cases directly after being assigned a large case, we expect $\beta < 0$. As before, we include year fixed-effects interacted with court district fixed-effects as judicial assignment is done within a given district. To control for differences in debtors, we include fixed-effects for liability and asset size.

—Please see Table 10—

Table 10 reports coefficients of multiple observations per failure specifications with different covariates. Column (1) shows that the assignment of a case in the previous week increases the probability of a new case assignment. However, the effect vanishes and the coefficient flips to a negative sign if the case when the previous week is sufficiently large. Panel A differentiates case sizes by percentiles of liabilities and Panel B makes distinctions based on percentiles of assets. The coefficients in columns (2) to (4) indicate that a larger previous case reduces the probability of a new case assignment to the same judge in the next week. And this effect is monotonically increasing with previous case size. Results are qualitatively similar whether case size is based on liabilities or assets. All models in columns (1) to (4) include court-district fixed-effects $\times$ year-fixed effects, liabilities fixed-effects, assets fixed-effects, and judge fixed-effects to confirm these differences hold across time periods for the same judge. The effect indicates that the assignments of large bankruptcy filings are negatively serially-correlated, while small bankruptcy filings are positively serially-correlated.

4.8 Timing of Bankruptcy Filings

The specification above evaluates whether judicial assignment are predicted by assignments in the prior week. In our second survival analysis, we test whether hedge funds influence the timing of filings based on this predictability. Implicit in this analysis is the

assumption that unsecured hedge funds encourage debtors to submit the filing directly after a pro-liquidation judge is assigned a large case. As in Equation 2, we subdivide time into weeks and assume that the baseline hazard is constant in each week, leading to a piecewise exponential model. Our model is of the form:

$$
\begin{aligned}
h_{ijt} = h_t exp\Big\{&\text{High Conversion Rate \& Large Case}_{ikt-1} \times \text{Unsecured Creditor}_{ik}\beta_1 \\
&+ \left(\text{High Conversion Rate \& Large Case}_{ikt-1}\right)\beta_2 \\
&+ \text{Unsecured Creditor}_{ik}\beta_3 \\
&+ \text{Court District FE} \times \text{Year FE} \\
&+ \text{Investment Firm FE} + \text{Revenue FE} + \text{Industry FE}\Big\},
\end{aligned}
\tag{3}
$$

where h_{ijt} is the hazard for Chapter 11 filing i of hedge fund k in week t, and $exp\left\{\boldsymbol{x}'_{ijt}\boldsymbol{\beta}\right\}$ is the relative risk for filing with covariate values $\boldsymbol{x}_{ijk}$, compared to the baseline at any given time. The failure event is then a Chapter 11 filing with creditor hedge fund k so that each portfolio company is at risk from the time of investment by the hedge fund k. We report coefficients instead of hazard ratios and estimate a log-linear model: $log\ h_{ikt} = log\ h_t + \boldsymbol{x}'_{ikt}\boldsymbol{\beta}$.

We define $High\ Conversion\ Rate$ as a binary variable denoting one if in the focal court district at least one judge's conversion rate assigned to a bankruptcy in week t is above the median and $Large\ Case$ as a binary variable denoting the company's liabilities (assets) are above the median, that means above \$600k (\$400k), at the time of filing. Panel A considers liabilities to define cases' size, and Panel B considers assets. $Unsecured\ Creditor$ is a binary variable that takes a positive value when the hedge fund holds an unsecured debt claim in a bankrupt firm. All models include court district fixed effects $\times$ year fixed effects, liability

fixed effects, and asset fixed effects.

—Please see Table 11—

Table 11 reports coefficients of these models. Column (1) shows that a Chapter 11 filing is less likely if a judge has been assigned a large case in the prior week (more than $600k in liabilities (Panel A) or more than $400k in assets (Panel B)). In column (2), we find the probability of filing decreases when a large case was assigned to a judge with a high conversion rate in the prior week. Most importantly, when we further distinguish between filings with and without an unsecured hedge fund creditor in column (3), we find it is filings with an unsecured hedge fund fail to file in the week after a large case is assigned to an undesirable judge. Overall, the results of Table 11 support the hypothesis that hedge funds exploit the predictability of assignments by influencing the timing of the bankruptcy filing.

5 Conclusion

Analyzing corporate bankruptcy filings between 2010 and 2020, we find evidence assignment is not random, but predicted by the lending decisions of hedge funds. In our setting, judges can decide whether to convert a Chapter 11 bankruptcy to a Chapter 7 liquidation, leading to significant implications for creditors. While secured creditors have a preference for liquidation, unsecured creditors generally recover more under reorganization; exploiting this distinction, we show that relative to secured hedge funds, unsecured hedge fund creditors are significantly less likely to be assigned a judge with a tendency to convert Chapter 11 cases. Explaining these findings, we show judges are not assigned multiple large cases within a small time window, allowing hedge funds to influence the filing date and ultimately judicial assignment.

Moving forward, we believe there are two potential policies that can alleviate these issues. The first, and simplest, is for policy makers to develop a truly randomized process. However, the obvious downside of this proposal is that judges at times by inundated with large filings, impacting judicial outcomes (Iverson, 2018; Müller, 2022). Alternatively, and following the suggestions of Iverson et al. (2020), policy makers can instead increase the number of bankruptcy judges. In this scenario, creditors will lose their predictability powers even if assignment is not fully randomized. Policy makers intent on a more fair judicial system should consider both proposals.

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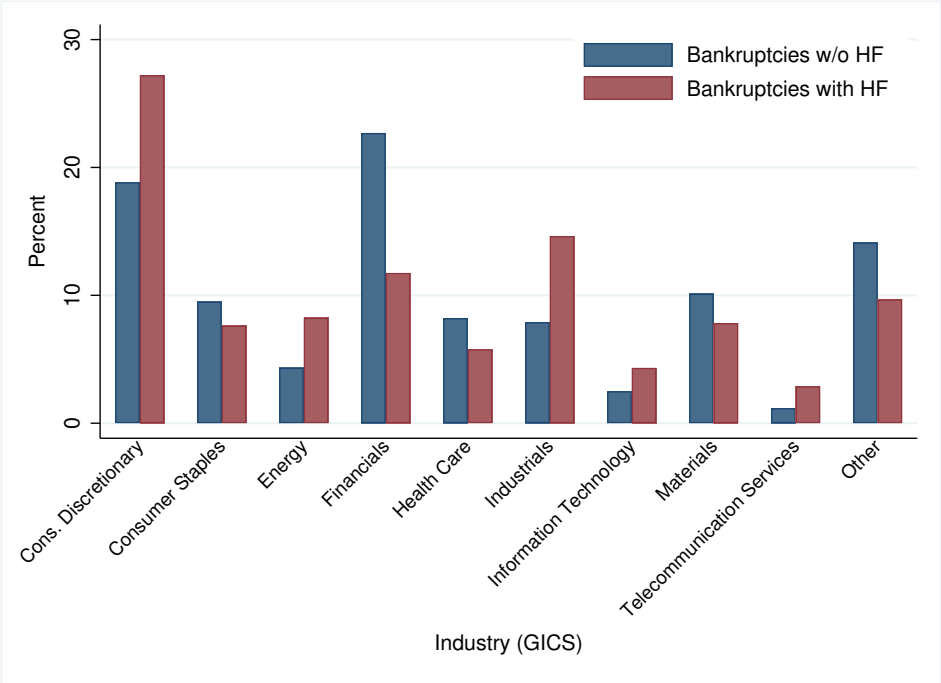
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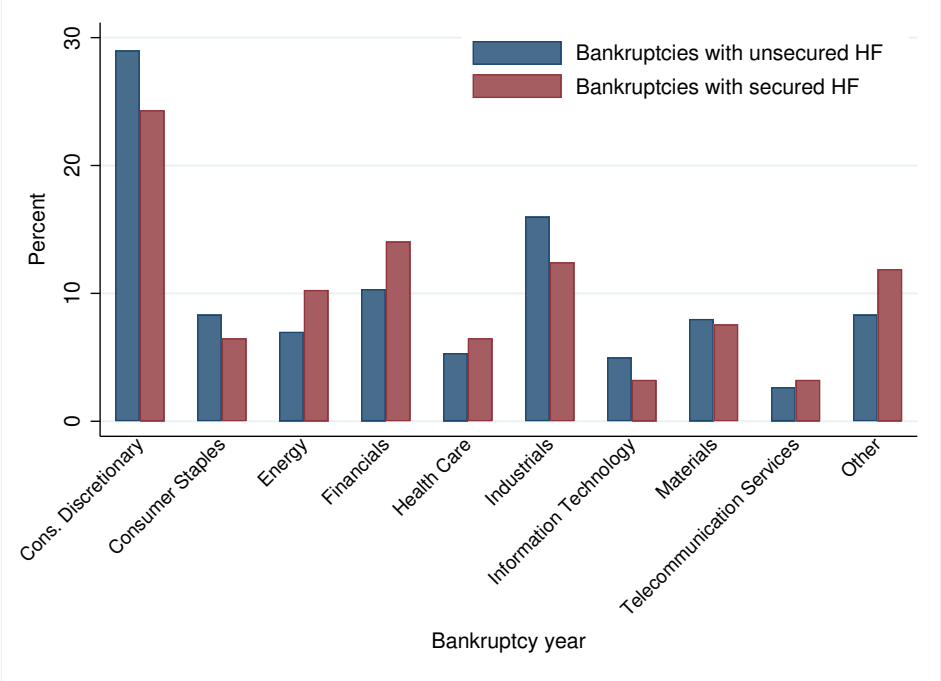
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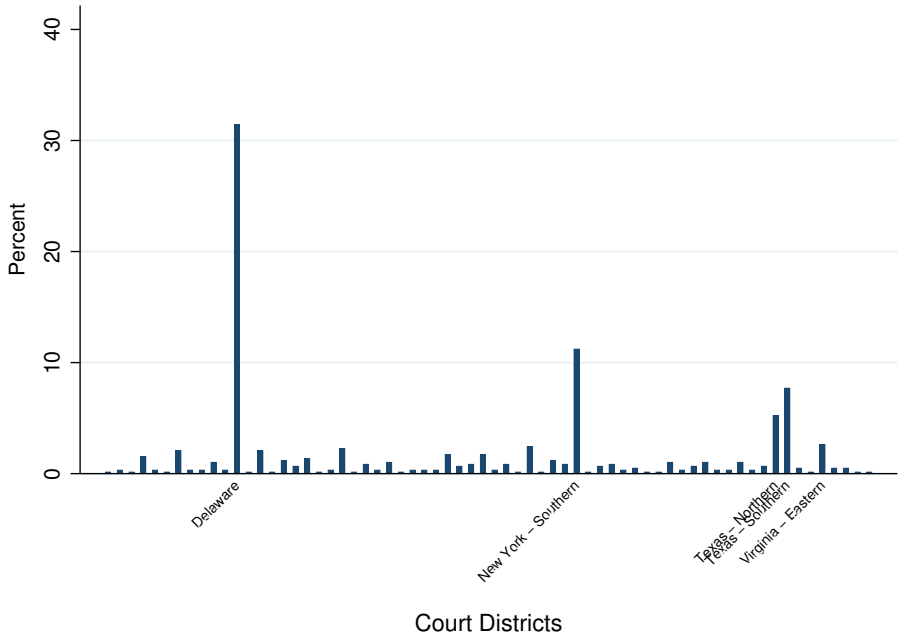


(a) **Panel A:** Bankruptcies with(out) Hedge Fund

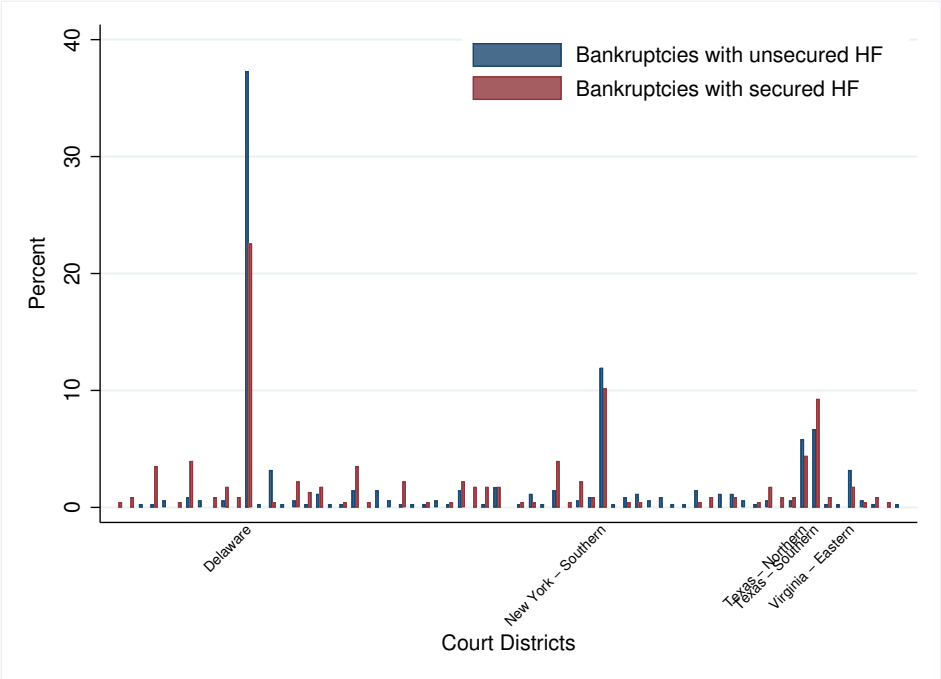


(b) **Panel B:** Bankruptcies with (Un)secured Hedge Fund

Figure 1: Filings across Industry



(a) **Panel A:** Bankruptcies with(out) Hedge Fund



(b) **Panel B:** Bankruptcies with (Un)secured Hedge Fund

Figure 2: Filings across Court District

Table 1: Summary statistics of Bankruptcies with(out) Hedge Fund

This table presents characteristics of bankruptcies with a hedge fund (HF) (569 observations) and without a HF creditor (16,656 observations) (Panel A) and characteristics of bankruptcies with unsecured hedge funds and secured hedge funds where bankruptcies occurred between 2010 and 2020. The first seven columns of Panel A report the mean, standard deviation, min, p25, median, p75, and max of the characteristics for bankruptcies with a HF (unsecured hedge fund in Panel B). Columns 6, 7 and 8 of Panel B report the mean of characteristics for bankruptcies without a HF (unsecured hedge fund in Panel B), $t-$statistics of differences in mean, Wilcoxon rank-sum tests, and Pearson χ^2-tests (in braces) of the null hypotheses that distributions of the two samples are identical. Assets, liabilities, unsecured claims, and debt investments are reported in million US dollars LTM before the bankruptcy filing date.

Panel A: Bankruptcies with(out) Hedge Funds

	Bankruptcies with HF							Bankruptcies w/o HF		
	Mean	SD	Min	p25	Median	p75	Max	Mean	$t-$stat of Diff.	Wilcoxon (χ^2-test)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Liabilities	124	247	0	0	2	42	5,931	27	-9.23	-5.50
Assets	53	144	0	0	0.037	4	9,866	11	-6.85	1.84
Unsecured Claims	83	199	0	0.048	1	14	5,931	14	-6.46	-6.02
Firm is public?				14%					3%	(-15.53)

Panel B: Bankruptcies with (Un)secured Hedge Funds

	Bankruptcies with unsecured HF							Bankruptcies with sec. HF		
	Mean	SD	Min	p25	Median	p75	Max	Mean	$t-$stat of Diff.	Wilcoxon (χ^2-test)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Liabilities	55	491	0	0	4	93	5,931	169	2.73	2.80
Assets	19	438	0	0	0.052	8	9,866	75	1.51	1.62
Unsecured Claims	23	502	0	0.038	2	28	5,931	122	1.66	1.98
Debt investment	174	1602	1	18	80	250	21,475	166	0.73	1.32
Firm is public?				14%					13%	(0.39)

Table 2: Details of Hedge Fund Data

This table reports the number of hedge funds (HFs) and HF deals matched with chapter 11 bankruptcies and the universe of HF/deal data in Preqin as of 01/1/2021, with investment years between 1996 and 2020. If there was more than one HF deal before bankruptcy (i.e., more than one HF invested in debt claims of a company before bankruptcy, or one HF invested multiple times before bankruptcy) we only consider the HF investment closes to bankruptcy.

	Sample: Fund and deal data	Preqin: excl. sample data
# of funds	138	1,743
# of HF deals	569	16,556
Inv. times		
— 1996-1999	4	221
— 2000-2004	30	909
— 2005-2010	179	3619
— 2011-2015	223	4753
— 2016-2020	133	6915
Debt investment		
— # of deals with size $>$ 1b	49	1,054
— # of deals with size 300m $<$ size $\leq$ 1b	245	8,635
— # of deals with 50m $<$ size $\leq$ 300m	129	2,793
— # of deals with 10m $<$ size $\leq$ 50m	93	2,631
— # of deals with size $<$ 10m	53	1,443
Tranche		
— Percent of deals with unsecured debt	60%	54%
Inv. time to bankruptcy		
— more than 10 years	65	
— between 5 years and 10 years	137	
— between 0 and 5 years	366	

Table 3: Do Judge Conversion/Recovery Rates Predict Future Case Outcomes?

In this table, we evaluate whether a given bankruptcy outcome can be predicted by the assigned judge's prior case outcomes. In Panel A, the dependent variable is *Convert to Chapter 7*, a binary variable that denotes whether the bankruptcy was converted to a Chapter 7 liquidation. The primary independent variable is *Judge Conversion Rate*, the judge's conversion-rate over the prior three-year period. In Panel B, the dependent variable Recovery Rate, a continuous variable denoting the recovery rate for unsecured debt according to the confirmed reorganization plan. The primary independent variable is *Judge Recovery Rate*, the judge's recovery-rate over the prior three-year period. We use * to denote significance at the 10% level, ** to denote significance at the 5% level, and *** to denote significance at the 1% level. We cluster standard errors at the court district-year level.

Panel A: Judge Conversion Rate

	(1) All	(2) All	(3) L $\geq$ p50 ($600k)	(4) A $\geq$ p50 ($400k)
Judge Conversion Rate	0.223***	0.223***	0.266***	0.267***
	(0.038)	(0.037)	(0.044)	(0.043)
Asset FE	No	Yes	Yes	Yes
Liability FE	No	Yes	Yes	Yes
Court FE $\times$ year FE	Yes	Yes	Yes	Yes
Observations	48047	48047	33037	31703
Adj. R^2	0.075	0.086	0.071	0.069

Panel B: Judge Recovery Rate

	(1) All	(2) All	(3) L $\geq$ p50 ($600k)	(4) A $\geq$ p50 ($400k)
Recovery Rate	0.264**	0.278**	0.321**	0.331**
	(0.125)	(0.125)	(0.143)	(0.141)
Asset FE	No	Yes	Yes	Yes
Liability FE	No	Yes	Yes	Yes
Court FE $\times$ year FE	Yes	Yes	Yes	Yes
Observations	3174	3174	2292	2229
Adj. R^2	0.468	0.481	0.355	0.359

Table 4: Are Unsecured Hedge Fund Creditors Assigned More Favorable Judges?

In this table, we evaluate whether filings with an unsecured hedge fund creditor are assigned different judges than a similar filing with a secured hedge fund creditor. In Panel A, the dependent variable is *Convert to Chapter 7*, a binary variable that denotes whether the bankruptcy was converted to a Chapter 7 liquidation. In Panel B, the dependent variable Recovery Rate, a continuous variable denoting the recovery rate for unsecured debt according to the confirmed reorganization plan. The primary independent variable is *Unsecured Hedge Fund*, a binary variable denoting whether the filing is associated with a hedge fund acting as an unsecured creditor. The independent variable, *Unsecured Hedge Fund*, is a binary variable denoting whether the filing is associated with a hedge fund acting as a creditor (secured or unsecured). We use * to denote significance at the 10% level, ** to denote significance at the 5% level, and *** to denote significance at the 1% level. We cluster standard errors at the court district-year level.

Panel A: Judge Conversion Rate

	(1) All	(2) All	(3) L $\geq$ p50 ($600k)	(4) A $\geq$ p50 ($400k)
Unsecured Hedge Fund	-0.033***	-0.033***	-0.031***	-0.031***
	(0.008)	(0.008)	(0.010)	(0.010)
Hedge Fund	0.004	0.004	0.005	0.007
	(0.007)	(0.007)	(0.009)	(0.010)
Asset FE	No	Yes	Yes	Yes
Liability FE	No	Yes	Yes	Yes
Court FE $\times$ year FE	Yes	Yes	Yes	Yes
Observations	12343	12343	8790	8412
Adj. R^2	0.499	0.500	0.501	0.497
Mean of Dep. Variable	0.110	0.110	0.117	0.118

Panel B: Judge Recovery Rate

	(1) All	(2) All	(3) L $\geq$ p50 ($600k)	(4) A $\geq$ p50 ($400k)
Unsecured Hedge Fund	27.842**	28.078**	31.181***	33.640***
	(12.564)	(11.517)	(10.344)	(10.735)
Hedge Fund	-9.822	-7.378	-8.209	-7.170
	(10.922)	(9.381)	(7.092)	(7.425)
Asset FE	No	Yes	Yes	Yes
Liability FE	No	Yes	Yes	Yes
Court FE $\times$ year FE	Yes	Yes	Yes	Yes
Observations	674	674	454	433
Adj. R^2	0.699	0.707	0.693	0.707
Mean of Dep. Variable	24.529	24.529	28.413	28.587

Table 5: Are Judge Assignments Really Random in these Districts ?

In this table, we evaluate whether filings with an unsecured hedge fund creditor are assigned different judges than a similar filing with a secured hedge fund creditor. In contrast to Table 4 we only include the 89 bankruptcy districts which are stated to be randomly assigned to one of the bankruptcy judges according to Iverson (2019). In Panel A, the dependent variable is *Convert to Chapter 7*, a binary variable that denotes whether the bankruptcy was converted to a Chapter 7 liquidation. In Panel B, the dependent variable Recovery Rate, a continuous variable denoting the recovery rate for unsecured debt according to the confirmed reorganization plan. The primary independent variable is *Unsecured Hedge Fund*, a binary variable denoting whether the filing is associated with a hedge fund acting as an unsecured creditor. The independent variable, *Unsecured Hedge Fund*, is a binary variable denoting whether the filing is associated with a hedge fund acting as a creditor (secured or unsecured). We use * to denote significance at the 10% level, ** to denote significance at the 5% level, and *** to denote significance at the 1% level. We cluster standard errors at the court district-year level.

Panel A: Judge Conversion Rate

	(1) All	(2) All	(3) L $\geq$ p50 ($600k)	(4) A $\geq$ p50 ($400k)
Unsecured Hedge Fund	-0.023***	-0.023***	-0.014***	-0.013***
	(0.007)	(0.006)	(0.005)	(0.005)
Hedge Fund	0.002	0.001	-0.003	-0.003
	(0.006)	(0.006)	(0.008)	(0.008)
Asset FE	No	Yes	Yes	Yes
Liability FE	No	Yes	Yes	Yes
Court FE $\times$ year FE	Yes	Yes	Yes	Yes
Observations	11043	11043	7730	7373
Adj. R^2	0.486	0.486	0.484	0.480
Mean of Dep. Variable	0.111	0.111	0.118	0.119

Panel B: Judge Recovery Rate

	(1) All	(2) All	(3) L $\geq$ p50 ($600k)	(4) A $\geq$ p50 ($400k)
Unsecured Hedge Fund	27.362**	29.690**	15.892**	15.817*
	(11.812)	(11.489)	(7.856)	(8.580)
Hedge Fund	-21.623**	-21.560**	-14.746*	-14.436
	(10.721)	(9.630)	(8.364)	(9.605)
Asset FE	No	Yes	Yes	Yes
Liability FE	No	Yes	Yes	Yes
Court FE $\times$ year FE	Yes	Yes	Yes	Yes
Observations	616	616	418	398
Adj. R^2	0.704	0.708	0.691	0.703
Mean of Dep. Variable	23.195	23.195	26.595	26.676

Table 6: Are our Findings Robust to Alternative Data and Specifications?

In this table, we evaluate whether filings with an unsecured hedge fund creditor are assigned different judges than a similar filing with a secured hedge fund creditor. The primary independent variable is *Unsecured Hedge Fund*, a binary variable denoting whether the filing is associated with a hedge fund acting as an unsecured creditor. The independent variable, *Hedge Fund*, is a binary variable denoting whether the filing is associated with a hedge fund acting as a creditor (secured or unsecured). Panel A displays estimates with Court × Office × Year fixed effects. Panel B reports results for the residual of the 3-year future conversion rate regressed on the 3-year past conversion rate as dependent variable. Panel C measures judge conversion-rate over the prior five years. We use * to denote significance at the 10% level, ** to denote significance at the 5% level, and *** to denote significance at the 1% level. We cluster standard errors at the court district-year level.

Panel A: Court FE × Office FE × Year FE

	(1) All	(2) All	(3) L ≥ p50 ($600k)	(4) A ≥ p50 ($400k)
Unsecured Hedge Fund	-0.015***	-0.015***	-0.012**	-0.012***
	(0.006)	(0.006)	(0.006)	(0.005)
Hedge Fund	0.000	-0.000	0.001	0.001
	(0.005)	(0.005)	(0.007)	(0.007)
Asset FE	No	Yes	Yes	Yes
Liability FE	No	Yes	Yes	Yes
Court FE × Office FE × Year FE	Yes	Yes	Yes	Yes
Observations	12259	12259	8734	8359
Adj. R^2	0.647	0.648	0.637	0.644
Mean of Dep. Variable	0.111	0.111	0.117	0.118

Panel B: Residual of 3-year Future Conversion Rate

	(1) All	(2) All	(3) L ≥ p50 ($600k)	(4) A ≥ p50 ($400k)
Unsecured Hedge Fund	0.002	0.002	0.006	0.005
	(0.009)	(0.008)	(0.008)	(0.009)
Hedge Fund	-0.000	0.000	-0.005	-0.003
	(0.008)	(0.007)	(0.007)	(0.008)
Asset FE	No	Yes	Yes	Yes
Liability FE	No	Yes	Yes	Yes
Court FE × year FE	Yes	Yes	Yes	Yes
Observations	9566	9566	6954	6632
Adj. R^2	0.387	0.389	0.396	0.394
Mean of Dep. Variable	-0.046	-0.046	-0.044	-0.044

Panel C: Five-Year Conversion Rates

	(1) All	(2) All	(3) L ≥ p50 ($600k)	(4) A ≥ p50 ($400k)
Unsecured Hedge Fund	-0.029***	-0.029***	-0.020***	-0.017***
	(0.008)	(0.008)	(0.007)	(0.006)
Hedge Fund	0.007	0.007	-0.000	-0.002
	(0.006)	(0.006)	(0.008)	(0.008)
Asset FE	No	Yes	Yes	Yes
Liability FE	No	Yes	Yes	Yes
Court FE × year FE	Yes	Yes	Yes	Yes
Observations	12245	12245	8724	8348
Adj. R^2	0.519	0.519	0.514	0.510
Mean of Dep. Variable	0.120	0.120	0.126	0.127

Table 7: Does Judicial Assignment Depend on the Time since Initial Hedge Fund Investment?

In this table, we evaluate whether assignment of a favorable judge depends on whether the unsecured (secured) hedge fund invested shortly prior to bankruptcy filing. In both panels, the dependent variable is *Convert to Chapter 7*, a binary variable that denotes whether the bankruptcy was converted to a Chapter 7 liquidation. The primary independent variable is *Unsecured* (*Secured*) *HF investing just before filing*, a binary variable denoting whether the associated unsecured secured) hedge fund associated with the filing invested below the median time to filing. The independent variable, *Unsecured* (*Secured*) *Hedge Fund*, is a binary variable denoting whether the filing is associated with a hedge fund acting as a creditor. We use * to denote significance at the 10% level, ** to denote significance at the 5% level, and *** to denote significance at the 1% level. We cluster standard errors at the court district-year level.

Panel A: Unsecured Creditor

	(1) All	(2) All	(3) L $\geq$ p50 ($600k)	(4) A $\geq$ p50 ($400k)
Unsecured HF investing just before filing	-0.020***	-0.020***	-0.019***	-0.019***
	(0.005)	(0.005)	(0.007)	(0.007)
Unsecured Hedge Fund	-0.019**	-0.019**	-0.013	-0.012
	(0.008)	(0.008)	(0.011)	(0.011)
Asset FE	No	Yes	Yes	Yes
Liability FE	No	Yes	Yes	Yes
Court FE $\times$ year FE	Yes	Yes	Yes	Yes
Observations	12117	12117	8646	8279
Adj. R^2	0.498	0.498	0.498	0.494
Mean of Dep. Variable	0.110	0.110	0.117	0.117

Panel B: Secured Creditor

	(1) All	(2) All	(3) L $\geq$ p50 ($600k)	(4) A $\geq$ p50 ($400k)
Secured HF investing just before filing	0.002	0.003	0.011	0.018
	(0.014)	(0.014)	(0.018)	(0.018)
Secured Hedge Fund	0.002	0.002	-0.001	-0.003
	(0.011)	(0.011)	(0.014)	(0.014)
Asset FE	No	Yes	Yes	Yes
Liability FE	No	Yes	Yes	Yes
Court FE $\times$ year FE	Yes	Yes	Yes	Yes
Observations	12010	12010	8574	8211
Adj. R^2	0.497	0.498	0.499	0.495
Mean of Dep. Variabl	0.112	0.112	0.119	0.119

Table 8: Does Judicial Assignment Depend on the Relationship between the Hedge Fund and Debtor?

In this table, we evaluate whether assignment of a favorable judge depends on whether the unsecured (secured) hedge fund holds a prior connection with the board of the debtor. In both panels, the dependent variable is *Convert to Chapter 7*, a binary variable that denotes whether the bankruptcy was converted to a Chapter 7 liquidation. The primary independent variable is *Unsecured* (*Secured*) *HF with Board Connections*, a binary variable denoting whether the associated unsecured secured) hedge fund associated with the filing has a prior connection with the board of the debtor. This is the case for about 50 percent of public borrowers. The independent variable, *Unsecured* (*Secured*) *Hedge Fund*, is a binary variable denoting whether the filing is associated with a hedge fund acting as a creditor. The independent variable, *Public Borrower*, is a binary variable denoting whether the filing is associated with a hedge fund invested in a public company. We use * to denote significance at the 10% level, ** to denote significance at the 5% level, and *** to denote significance at the 1% level. We cluster standard errors at the court district-year level.

Panel A: Unsecured Creditor

	(1) All	(2) All	(3) L $\geq$ p50 ($600k)	(4) A $\geq$ p50 ($400k)
UHF with Board Connection	-0.004	-0.004	-0.012**	-0.015***
	(0.004)	(0.004)	(0.006)	(0.006)
Unsecured Hedge Fund (UHF)	-0.029***	-0.029***	-0.025***	-0.023***
	(0.006)	(0.006)	(0.007)	(0.007)
Public Borrower	0.003	0.003	0.002	0.002
	(0.003)	(0.003)	(0.004)	(0.004)
Asset FE	No	Yes	Yes	Yes
Liability FE	No	Yes	Yes	Yes
Court FE $\times$ year FE	Yes	Yes	Yes	Yes
Observations	12343	12343	8790	8412
Adj. R^2	0.499	0.500	0.501	0.496
Mean of Dep. Variable	0.110	0.110	0.117	0.118

Panel B: Secured Creditor

	(1) All	(2) All	(3) L $\geq$ p50 ($600k)	(4) A $\geq$ p50 ($400k)
SHF with Board Connection	-0.007	-0.007	-0.019	-0.019
	(0.015)	(0.015)	(0.016)	(0.017)
Secured Hedge Fund (SHF)	0.007	0.007	0.010	0.011
	(0.008)	(0.008)	(0.010)	(0.011)
Public Borrower	0.001	0.001	0.001	0.001
	(0.003)	(0.003)	(0.004)	(0.005)
Asset FE	No	Yes	Yes	Yes
Liability FE	No	Yes	Yes	Yes
Court FE $\times$ year FE	Yes	Yes	Yes	Yes
Observations	12343	12343	8790	8412
Adj. R^2	0.498	0.498	0.500	0.496
Mean of Dep. Variable	0.110	0.110	0.117	0.118

Table 9: Additional Robustness Analysis

In this table, we evaluate whether filings with an unsecured hedge fund creditor are assigned different judges than a similar filing with a secured hedge fund creditor. The primary independent variable is *Unsecured Hedge Fund*, a binary variable denoting whether the filing is associated with a hedge fund acting as an unsecured creditor. The independent variable, *Hedge Fund*, is a binary variable denoting whether the filing is associated with a hedge fund acting as a creditor (secured or unsecured). Panel A controls for the two-digit NAICS code of the debtor. Panel B excludes all involuntary bankruptcies from the analysis. We use * to denote significance at the 10% level, ** to denote significance at the 5% level, and *** to denote significance at the 1% level. We cluster standard errors at the court district-year level.

Panel A: Controlling for Debtor Industry

	(1)	(2)	(3)	(4)	(5)	(6)
		Judge Conversion Rate			Judge Recovery Rate	
	All	L ≥ p50 ($600k)	A ≥ p50 ($400k)	All	L ≥ p50 ($600k)	A ≥ p50 ($400k)
Unsecured Hedge Fund	-0.031***	-0.038***	-0.037***	23.241**	22.316**	24.963***
	(0.009)	(0.013)	(0.013)	583	389	372
Hedge Fund	0.006	0.015	0.015	-4.499	-1.503	-1.454
	(0.008)	(0.011)	(0.011)	(9.320)	(7.278)	(7.232)
Asset FE	Yes	Yes	Yes	Yes	Yes	Yes
Liability FE	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes
Court FE × year FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	10555	7485	7175	583	389	372
Adj. R^2	0.501	0.499	0.495	0.745	0.695	0.707
Mean of Dep. Variable	0.109	0.116	0.117	23.226	27.913	27.959

Panel B: Excluding Involuntary Bankruptcies

	(1)	(2)	(3)	(4)	(5)	(6)
		Judge Conversion Rate			Judge Recovery Rate	
	All	L ≥ p50 ($600k)	A ≥ p50 ($400k)	All	L ≥ p50 ($600k)	A ≥ p50 ($400k)
Unsecured Hedge Fund	-0.033***	-0.031***	-0.031***	28.078**	31.181***	33.640***
	(0.008)	(0.010)	(0.011)	(11.526)	(10.344)	(10.735)
Hedge Fund	0.003	0.005	0.007	-7.381	-8.209	-7.170
	(0.007)	(0.009)	(0.010)	(9.389)	(7.092)	(7.425)
Asset FE	Yes	Yes	Yes	Yes	Yes	Yes
Liability FE	Yes	Yes	Yes	Yes	Yes	Yes
Court FE × year FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	12308	8776	8399	672	454	433
Adj. R^2	0.500	0.501	0.496	0.706	0.693	0.707
Mean of Dep. Variable	0.110	0.117	0.118	24.523	28.413	28.587

Table 10: Case Assignments for Judges

This table reports estimates of piecewise exponential models. In contrast to the general hazard rate model we make mild assumption about the baseline hazard to be able to include fixed effects without facing an incremental parameter bias. Specifically, we subdivide time into weeks and assume that the baseline hazard is constant in each week, leading to a piecewise exponential model. Our model is of the form: $h_{ijt} = h_t exp\left\{\boldsymbol{x}'_{ijt}\boldsymbol{\beta}\right\}$, where h_{ijt} is the hazard for Chapter 11 filing i assigned to judge j in week t, and $exp\left\{\boldsymbol{x}'_{ijt}\boldsymbol{\beta}\right\}$ is the relative risk for filing with covariate values $\boldsymbol{x}_{ijt}$, compared to the baseline at any given time. Each failure event is a case assigned to judge j so that each case is at risk from the first to the last case of judge j in our sample. We report coefficients instead of hazard ratios. That means, we estimate a log-linear model: $log\ h_{ijk} = log\ h_k + \boldsymbol{x}'_{ijk}\boldsymbol{\beta}$.

Panel A: Case Size Based on Liabilities

	(1)	(2)	(3)	(4)
Case in week $(t-1)$	0.050			
	(0.039)			
$\geq$ 600k liability case in week $(t-1)$/L$\geq$ p50		-0.049**		
		(0.019)		
$\geq$ 1m liability case in week $(t-1)$/L$\geq$ p75			-0.060***	
			(0.022)	
$\geq$ 10m liability case in week $(t-1)$L$\geq$ p90				-0.069***
				(0.020)
Judge FE	Yes	Yes	Yes	Yes
Liability FE	Yes	Yes	Yes	Yes
Asset FE	Yes	Yes	Yes	Yes
Court FE $\times$ year FE	Yes	Yes	Yes	Yes
# of weeks	205011	205011	205011	205011

Panel B: Case Size Based on Assets

	(1)	(2)	(3)	(4)
Case in quarter $(t-1)$	0.050			
	(0.039)			
$\geq$ 400k asset case in quarter $(t-1)$/A$\geq$ p50		-0.069**		
		(0.027)		
$\geq$ 2m asset case in quarter $(t-1)$/A$\geq$ p75			-0.064***	
			(0.022)	
$\geq$ 5m asset case in quarter $(t-1)$/A$\geq$ p90				-0.054***
				(0.019)
Judge FE	Yes	Yes	Yes	Yes
Liability FE	Yes	Yes	Yes	Yes
Asset FE	Yes	Yes	Yes	Yes
Court FE $\times$ year FE	Yes	Yes	Yes	Yes
# of weeks	205011	205011	205011	205011

Table 11: Hedge Fund Bankruptcy Filing Decisions

This table reports estimates of piecewise exponential models. In contrast to the general hazard rate model we make mild assumption about the baseline hazard to be able to include fixed effects without facing an incremental parameter bias. Specifically, we subdivide time into weeks and assume that the baseline hazard is constant in each week, leading to a piecewise exponential model. Our model is of the form: $h_{ijt} = h_t exp\left\{\boldsymbol{x}'_{ijt}\boldsymbol{\beta}\right\}$, where h_{ijt} is the hazard for Chapter 11 filing i of hedge fund j in quarter t, and $exp\left\{\boldsymbol{x}'_{ijt}\boldsymbol{\beta}\right\}$ is the relative risk for filing with covariate values $\boldsymbol{x}_{ijk}$, compared to the baseline at any given time. The failure event is a Chapter 11 filing by hedge fund j so that each portfolio company is at risk from the time of investment by the hedge fund j. We report coefficients instead of hazard ratios. That means, we estimate a log-linear model: $log\ h_{ijt} = log\ h_t + \boldsymbol{x}'_{ijk}\boldsymbol{\beta}$.

Panel A: Big case ≡ Assets (A) ≥ $400k (i.e., A≥p50)

	(1)	(2)	(3)
Big case $(t-1)$	1.578***		
	(0.389)		
High judge conv. rate & big case $(t-1)$		2.102***	-3.988***
		(0.692)	(1.011)
Unsecured Hedge Fund (UHF)			0.195
			(0.129)
High judge conv. rate & big case $(t-1)$ × UHF			2.265***
			(0.841)
Liability FE	YES	YES	YES
Asset FE	YES	YES	YES
Court FE × year FE	YES	YES	YES
# of Quarters	49732	49732	49732

Panel B: Big case ≡ Liabilities (L) ≥ $600k (i.e., L≥p50)

	(1)	(2)	(3)
Big case $(t-1)$	1.533***		
	(0.430)		
High judge conv. rate & big case $(t-1)$		2.433***	-4.025***
		(0.667)	(1.159)
Unsecured Hedge Fund (UHF)			0.199
			(0.184)
High judge conv. rate & big case $(t-1)$ × UHF			3.327***
			(1.293)
Liability FE	YES	YES	YES
Asset FE	YES	YES	YES
Court FE × year FE	YES	YES	YES
# of Quarters	49732	49732	49732