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Lender control in Chapter 11: Empirical evidence

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Abstract

I examine control rights and priority upgrades that lenders acquire through financing agreements in large Chapter 11 cases. I observe control rights in Chapter 11 more frequently when the pre-bankruptcy financial structure includes a secured loan and even more frequently in the presence of certain types of secured loans. The evidence suggests debtors commit before bankruptcy to lender control in the event of Chapter 11. Pre-bankruptcy secured lenders provide financing and acquire control rights in Chapter 11 more frequently than other lenders, which is consistent with efficient monitoring but also consistent with holdup problems associated with private information and monopolistic legal rights. Among debtors that enter Chapter 11 as a going concern, debtors with a controlling lender have a bias toward liquidation, yet three-quarters remain a going concern. Debtors with a controlling lender take less time to decide the fate of the debtor's assets, which is consistent with the preference of senior claimholders for a short time-to-maturity Chapter 11 process.

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1. Introduction

Bankruptcy law scholars observe that relative to large-firm Chapter 11 cases of the 1980's, lenders exert more power in Chapter 11 cases of the late-1990s and 2000's. Differences in the interpretation of increased lender power serve as the source of ongoing research and debate in the law reviews. In an issue of the American Bankruptcy Institute Law Journal (Spring 2004), devoted to look at US bankruptcy law after twenty-five years under the current bankruptcy code (the *Code*), eight of twelve articles focus on the role of lender power in large Chapter 11 cases. I provide empirical evidence on lender control, the determinants of lender control, and relations between lender control and Chapter 11 outcomes.

The lender power debate in the law reviews centers on two interpretations of increased lender power: the contractualist and traditionalist interpretations.^{1,2} According to the contractualist interpretation, increased lender power corresponds with efficient innovations in financial contracting following the enactment of the Code, effective in substantially current form since October 1, 1979 (see for example Baird and Rasmussen (2002, 2005) and Skeel (2003)). Contractualists assert that the Code, in combination with the types of financial contracts in existence in the 1980's, leaves too much power in the hands of managers during Chapter 11 (see for example Schwartz (1998)). Although the Code charges managers with a fiduciary duty to all claimholders, managers have incentives and presumably discretion to take actions that deviate

¹ Bankruptcy law scholars typically distinguish between two competing schools of thought about bankruptcy. One school is alternatively called contractualist, proceduralist, or efficientist while the other school is alternatively called traditionalist, rehabilitationalist, or populist. Of course not every article in the bankruptcy law literature falls cleanly into one of the two schools.

² The following exchange between two bankruptcy law scholars at the American Bankruptcy Institute Round Table Discussion (2003) illustrates the contractualist and traditionalist positions, respectively:

“It seems to me that on the corporate side the [bankruptcy] system works pretty well, and, for the most part, most people think it works pretty well.” – David Skeel.

“Most people except for the employees of Enron and the retirees, small creditors, investors and other people who have been cheated by these companies...Bankruptcy reform is not about how to squeeze out more payments out of families on behalf of poor Citibank.” - Elizabeth Warren

from the interests of claimholders as a group. Weiss and Wruck (1998) conclude that the Eastern Airlines Chapter 11 case, which begins in 1989, “demonstrates the importance of having a bankruptcy process that protects a distressed firm’s assets...from overly optimistic managers and misguided judges (p. 55).” If a manager owns equity or the compensation scheme aligns manager interests with equityholders, the manager has a bias toward a high variance, long time-to-maturity Chapter 11 process. A manager that values job security has additional incentives to reorganize or delay liquidation.

If contracting agents are informed and rational, a debtor has incentives to enter ex ante contracts that constrain ex post opportunism. Smith and Warner (1979) discuss how a debtor can use loan covenants outside bankruptcy to increase debtor value by constraining ex post opportunism. But as Triantis (1993) points out, loan covenants become unenforceable in bankruptcy so the covenants that constrain ex post opportunism outside bankruptcy do not necessarily work in bankruptcy. However, I provide evidence that debtors use security interests and other contract terms to constrain opportunism in Chapter 11. I find evidence consistent with a pre-bankruptcy commitment to give lenders control rights in Chapter 11.

According to the traditionalist interpretation, increased lender power corresponds with inefficient innovations in the ability of some lenders to expropriate value from other claimholders and stakeholders (see for example Bebchuk and Fried (1996), Kunev (2004), Lubben (2004), and Westbrook (2004)). Traditionalists observe that lenders are effectively short a call option on the firm, and therefore prefer a lower variance, shorter time-to-maturity Chapter 11 process than claimholders and stakeholders in general. The combination of lender control and lender preference for low variance and short time-to-maturity can lead to inefficient choices such

as early liquidation. The traditionalist interpretation relies on market frictions that prevent market participants from contracting away inefficiencies associated with lender power.³

Exiting empirical evidence helps characterize lender control in Chapter 11. Baird and Rasmussen (2002) and LoPucki (2003) observe that the portion of large, public debtors that complete a non-prenegotiated reorganization drops from eighty-eight percent in the 1980's to twenty-four percent in 2002. Baird and Rasmussen interpret the drop as evidence that debtors increasingly contract around inefficient Chapter 11 reorganization. However, LoPucki (2003) observes that the raw number of Chapter 11 reorganizations increases and argues that changes in the tax treatment of net operating losses and developments in case law can contribute to the decrease in the fraction of Chapter 11 debtors that reorganize.

Other empirical evidence concerns debtor in possession (DIP) financing. Bankruptcy law scholars recognize DIP loans as a potential mechanism for lenders to obtain control in Chapter 11. Evidence in the finance literature on DIP loans suggests DIP loans *aid* the reorganization process. Dahiya, John, Puri, and Ramirez (2003) and Carapeto (2003) find a higher probability of reorganization (as opposed to liquidation) among DIP-financed debtors. Dahiya et al. report that DIP-financed debtors reorganize or liquidate quicker than non-DIP-financed debtors and even quicker when a pre-bankruptcy lender provides the DIP loan. However, the relations concerning time to liquidation or reorganization in Dahiya et al. fail to hold in my sample.

Chatterjee, Dhillon, and Ramirez (2004) report positive stock and bond abnormal returns to DIP loan announcements. Chatterjee et al. exclude simultaneous Chapter 11 and DIP loan

³ Market frictions hypothesized to support inefficient lender power in Chapter 11 include non-adjusting creditors and stakeholders (Bebchuk and Fried (1996), LoPucki (1994), Lubben (2005), and Warren and Westbrook (2005)), management agency costs (Kuney (2004) and Lubben (2005)), monopoly rights of secured lenders provided by the Uniform Commercial Code and the Code, and a race to the bottom by bankruptcy judges competing for bankruptcy cases (see for example any article in *Vanderbilt Law Review* 55, November 2002). Non-adjusting creditors set prices independent of variation in expected recoveries in the event the debtor enters Chapter 11. Possible non-adjusting creditors include the IRS, pensioners, tort claimants, and rationally uninformed small creditors.

announcements. In my sample, seventy-five percent of debtors that obtain a DIP loan file the initial motion for court authority to obtain the DIP loan within one day of the bankruptcy filing. Further, I find higher lender control among this seventy-five percent of debtors, which suggests Chatterjee et al. examine a non-representative sample of DIP loans or identify announcement dates that post-date the first public information concerning the DIP loan.

Finally, Gilson (1989) and LoPucki and Whitford (1993) report that creditor pressure contributes to management turnover in distressed and bankrupt debtors. Gilson and Vetsuypens (1993, 1994) report ties between CEO wealth and creditor interests among distressed and bankrupt debtors.

I form a sample of Compustat-listed firms that file for bankruptcy between 1997 and 2004 in fourteen of ninety-four federal judicial districts. I collect data from court documents and SEC filings for 108 debtors (*my sample will grow to 174 as I collect more data*). I focus on the ninety debtors that enter Chapter 11 as a going concern. Eight debtors enter Chapter 11 after ceasing operations and ten debtors enter Chapter 7.

I observe control rights that lenders obtain in Chapter 11. While the Code provides all claimholders with rights that at least indirectly allow claimholders to influence asset use, I ignore default claimholder control rights such as the right to heard in court or vote on a plan of reorganization. I also ignore standard debtor-in-possession (DIP) loan covenants. Chatterjee et al. (2004) examine DIP loan covenants and report that DIP loans include standard covenants more frequently than non-distressed loans and junk bonds. Rather, I examine control rights that lenders bargain for in bankruptcy such as control over the debtor's cash, line item budgets, constraints on reorganization plans, and requirements to employ restructuring officers. Besides lender control rights, I examine priority upgrades, whereby a pre-bankruptcy lender obtains

priority that is higher than the Code provides by default. My intent is to examine the types of control rights and priority upgrades that Kuney (2004, p. 57) labels “controversial,” and that Baird and Rasmussen (2005, p. 1) associate with lender powers that “rival in importance the hostile takeover in disciplining poor or underperforming managers.”

For each debtor, I also identify the most senior pre-bankruptcy secured financial lender, if any, which I call the *senior lender*. I observe that *any* lender obtains control rights in Chapter 11 more frequently when the pre-bankruptcy financial structure includes a senior loan. Lender control rights in Chapter 11 are even more frequent in the presence of certain types of pre-bankruptcy senior loans, which I call high control senior loans. The evidence suggests debtors commit before bankruptcy to lender control in the event of Chapter 11. Almost two-thirds of pre-bankruptcy lending relationships associated with lender control in Chapter 11 begin at least two years before bankruptcy. Separately, I show that senior lenders have advantages in providing financing and obtaining control rights in Chapter 11, which is consistent with information advantages of senior lenders but is also consistent with monopolistic legal rights provided to senior lenders by the Code.

Chapter 11 debtors with a high control senior loan have a bias toward liquidation although about three-quarters of debtors remain a going concern, which suggests lender bias toward liquidation does not dominate other factors in most cases. I observe no statistically significant bias against reorganization as opposed to liquidation or acquisition.

Viewing the senior lender as short a call option on the debtor with a strike price equal to the face value of the senior lender’s claim, option theory suggests that senior lenders prefer a shorter time-to-maturity bankruptcy process. Consistent with this preference, debtors reorganize, get acquired, or liquidate sooner in the presence of a high control senior loan – that is, when the

senior lender has more influence over the disposition of assets. Option theory also suggests that senior lenders' preference for short time-to-maturity is strongest when the option is at-the-money and decreases as the value of the underlying assets increases beyond the strike price. I find supporting evidence. Inconsistent with option theory, time to reorganization, acquisition, or liquidation remains constant as asset value decreases below the strike price.

Section 2 discusses relevant aspects of the law. Section 3 introduces the data and section 4 provides the evidence. Section 5 concludes.

2. Institutional background

I discuss aspects of US commercial and bankruptcy law that bear on my evidence. I focus on adequate protection, which in combination with pre-bankruptcy contracts can provide a basis for lender control in Chapter 11. Along the way, I discuss the automatic stay, cash collateral orders, DIP loans, and lien priming.

Outside bankruptcy, a security interest in collateral provides a secured lender with rights in the collateral. A secured lender can repossess the collateral if the borrower defaults on the loan.⁴ A secured lender's interest in collateral typically survives sale of the collateral to a third-party.⁵ Finally, a secured lender enjoys priority in the collateral over future creditors that take a security interest in the same collateral.⁶ But once the borrower enters bankruptcy, the Code alters the secured lender's rights in the collateral. The *automatic stay*, which prevents all claimholders from pursuing their claims against a bankrupt debtor, prohibits the secured lender

⁴ A secured lender can repossess without a court order if the lender can repossess without "breach of the peace" (Uniform Commercial Code Article 9 §609). When a lender is secured but cannot repossess peaceably or the lender is unsecured, the lender can repossess following a court order.

⁵ See Uniform Commercial Code Article 9 §§201(a), 315(a).

⁶ The lender must take steps to "perfect" the security interest, such as making a public filing to provide notice of the security interest, to enjoy priority over future lienholders or a bankruptcy trustee (Uniform Commercial Code Article 9 Part 3).

from repossessing collateral (§362). The bankruptcy court can authorize the sale of the collateral to a third-party free and clear of the secured lender's liens (§363). Finally, the bankruptcy court can authorize new loans with security interests that take priority over existing security interests in the collateral (§364). In exchange for reducing the secured lender's non-bankruptcy rights, the Code grants secured creditors a right to *adequate protection*, which is an imprecisely defined level of assurance that the value of the interest in collateral at inception of the bankruptcy case will survive through the case. A debtor can provide adequate protection by pledging new collateral, issuing cash payments, or some alternative arrangement (§361). A secured lender has the right to adequate protection when collateral depreciates, the debtor sells collateral, or the debtor subordinates the secured lender's rights in the collateral. I now turn to the role of adequate protection when the debtor seeks financing in Chapter 11.

A bankrupt debtor requires cash or credit to pay expenses in bankruptcy. Expenses include the administrative costs of bankruptcy as well as operating and investment costs if the debtor continues to operate and invest. The cash or credit can come from four sources. First, the debtor can use cash on hand if no creditor has a security interest in the cash. Second, the debtor can use cash proceeds from future product sales, asset dispositions, or account collections if no creditor has a security interest in the proceeds.

Third, when a creditor holds a security interest in the debtor's cash, whether cash on hand or future cash proceeds, the debtor can use the cash only with consent of the secured creditor or following proof that the secured creditor's cash collateral is adequately protected (§363(c)(2)). If the debtor values secured creditor consent, perhaps because the creditor can force costly hearings on the sufficiency of adequate protection or the debtor lacks unencumbered assets to pledge as adequate protection, the debtor can try to "buy" creditor consent by offering the lender control

rights or priority upgrades. After consent or proof of adequate protection, the bankruptcy court issues a *cash collateral order*, which specifies the terms under which the debtor can use the cash collateral and formalizes any lender control rights and priority upgrades.

Fourth, a debtor can borrow funds with a DIP loan. While all DIP loans enjoy priority over unsecured pre-bankruptcy loans, the priority of a DIP lender's security interest in collateral relative to existing security interests depends on the terms of the DIP loan. The Code authorizes but does not require the bankruptcy court to give the DIP lender a security interest in collateral with priority above an existing secured creditor's interest in the same collateral, which is called *priming* the existing creditor's liens. In order to prime the existing creditor's liens, the debtor must provide the existing creditor with adequate protection. Thus when the debtor seeks to prime pre-bankruptcy liens, pre-bankruptcy secured creditors can leverage the right to adequate protection to obtain control rights or priority upgrades. Separately, the DIP lender can negotiate for control rights as part of the DIP loan. The court's order authorizing the DIP loan and the DIP loan contract formalize the control rights and priority upgrades for both pre-bankruptcy secured creditors and the DIP lender.

3. Data

Using the Securities Database Corporation database and delisting codes in Compustat, I initially identify 824 Compustat listed firms that file for bankruptcy between 1997 and 2004. Bankruptcy cases take place in federal judicial courts. Among ninety-four federal judicial districts, the most popular districts include the District of Delaware (24 percent), the Southern District of New York (13 percent), and the Northern District of California (7 percent). Less than five percent of cases take place in any other judicial district.

I restrict my sample to 174 cases that take place in one of fourteen judicial districts that grant me a waiver from fees for electronic access to court documents through the Public Access Court Electronic Record (PACER).⁷ I further require that substantially all bankruptcy case documents are available in PACER. Among the fourteen judicial districts, PACER contains court documents for cases beginning as early as 1995 for the Southern District of New York and beginning as late as 2004 for the Eastern District of Michigan. Table 1 shows the number of bankruptcies in my sample by year and federal judicial district. Among the 174 bankruptcies in my sample, fifty-eight percent of cases take place in the Southern District of New York while seventy-nine percent of cases begin in 2001 or later. To date, I have data for 108 of the 174 sample debtors and I focus primarily on the ninety firms that enter Chapter 11 as a going concern. Eight debtors enter Chapter 11 after ceasing operations and ten debtors enter Chapter 7.

I examine bankruptcy court documents and SEC filings to identify the most senior pre-bankruptcy secured financial lender, which I call the senior lender. By focusing on financial lenders, I exclude creditors that acquire priority through purchase money security interests, mechanics liens, judgment liens, leases, and the like. When the lender is a syndicate, I identify the lender by the lead agent. Table 2, panel A provides descriptive statistics for the ninety debtors that enter Chapter 11 as a going concern. The smallest debtor enters Chapter 11 with 700 thousand in liabilities while the largest has 12.4 billion in liabilities. The median debtor enters Chapter 11 with an asset to liability ratio of 0.65. Seventy-five of ninety debtors have a senior lender. A bank serves as senior lender for fifty-eight of the seventy-five debtors where the term “bank” denotes commercial lenders with depository services such as JPMorgan Chase and commercial lenders without depository services such as General Electric Credit Corporation.

⁷ Congress sets the current fees at \$.08 per page up to a maximum of \$2.40 per search or document. After two applications for a PACER fee waiver from the District of Delaware twice, I still await a response.

The seventeen non-bank senior lenders include hedge funds, bondholders, and strategic lenders such as customers, suppliers, managers, and potential acquirers.

In panel B of Table 2, I compare debtors with and without senior bank lenders, which is a distinction I make throughout the rest of the paper. At the bankruptcy date, debtors with a senior bank lender are larger and have a higher asset to liability ratio. Four quarters before bankruptcy, debtors with a senior bank lender are more profitable and have a lower market-to-book ratio, which suggests assets in place compose a larger fraction of debtor value among debtors with a senior bank lender. Perhaps banks have less of an advantage monitoring growth options or other non-book assets. Among debtors with a senior bank lender, the median senior bank loan composes fifty percent of liabilities.

Panel C of Table 2 shows that thirty-six percent of sample bankruptcies are prenegotiated. Fourteen percent of bankruptcies involve a prenegotiated acquisition whereby the debtor and an acquirer agree outside bankruptcy to complete an acquisition in bankruptcy. Acquisition in bankruptcy allows the debtor greater flexibility to separate assets from the claims on the assets. For example, the bankruptcy court can declare an acquisition to be free and clear of existing security interests in the assets (§363) or other claimholder rights such as antitakeover protections. Separately, an acquirer bears lower risk of successor liability when buying the debtor out of bankruptcy (citation). I fail to find statistically significant differences in prenegotiation based on the presence of a senior bank lender. One sample case begins with an involuntary bankruptcy filing.

Table 3 describes the formal control rights and priority upgrades that I examine. I defer to Table 3 for descriptions except to explain *concentration accounts*. Some debtors implement a cash management system whereby the debtor directs all cash inflows to a master account at a

depository institution. By granting the lender a security interest in the master account and arranging for the depository institution to grant the lender control over the account in the event of default, the lender can effectively turn off the debtor's access to the debtor's cash in the event of default. As an additional measure, the loan agreement can specify that all flows into the master account are applied to pay down the revolver while all cash outflows are funded through draws on the revolver. In the event of bankruptcy, the debtor is left with little or no cash on hand. I say the debtor has a concentration account when the debtor's cash management system directs all cash inflows to a master account, the lender has a security interest in the master account, and the depository institution holding the master account agrees to give the lender control of the master account in the event of default. The third requirement is automatically satisfied when the master account is at the lender's institution. For example, the DIP loan for Act Manufacturing requires Act Manufacturing to deposit all proceeds of sales into an account maintained with the DIP loan agent, JPMorgan Chase Bank, and grants the agent a security interest in the account.

4. Evidence

I begin with evidence on the frequency of control rights and priority upgrades. I then examine the determinants of senior lender rights. I examine relations between lender control and Chapter 11 outcomes. Finally, I examine relations between lender control and CEO turnover.

4.1. Description of lender power in Chapter 11

In this section, I provide evidence on the frequency of lender control rights and priority upgrades in Chapter 11. I then show that control rights accrue primarily to the senior lender.

4.1.1. Frequency of control rights and priority upgrades

Table 4 reports the frequency of control rights and priority upgrades in DIP loans and cash collateral orders. Of ninety debtors that enter Chapter 11 as a going concern, fifty-one obtain DIP financing and thirty-seven obtain a cash collateral order. In ten of the DIP loan cases, the DIP loan order also authorizes the debtor to use the senior lender's cash collateral (not reflected in the table).

The most frequently observed control rights are line item budgets and stay relief upon default, which occur in sixty percent of cases. The least frequent control rights are required acquisition and required liquidation, which occur in eight and three percent of cases, respectively. When the debtor obtains a DIP loan or cash collateral order, a lender enjoys at least one of the control rights or priority upgrades in all but one case. The frequencies and variation in the frequencies of control rights and priority upgrades suggest tailored lender rights rather than boilerplate cash collateral and DIP loan documents.

In future work, I can also examine the frequency of *bankruptcy vetoes*, whereby the case effectively ends after the senior lender argues that the debtor cannot provide adequate protection. For now, I informally observe that some cases in my sample end with a bankruptcy veto.

4.1.2. Senior lender advantages in the Chapter 11 financing market

A debtor can obtain a DIP loan from any lender to finance operations in Chapter 11, but senior lenders have potential advantages in the Chapter 11 financing market. The right to adequate protection can provide senior lenders with monopoly power in the Chapter 11 financing market. Separately, control rights can be more valuable to a senior lender that serves as DIP lender because the senior lender can exercise the control rights on behalf of both the pre-

bankruptcy loan and the DIP loan. Finally, a senior lender can have advantages for reasons unrelated to the senior lender's right to adequate protection or the bankruptcy filing. If a senior lender acquires private information during the lending relationship, the senior lender can have advantages in monitoring and controlling the debtor. In addition, if a senior lender has private information, third-party lenders potentially suffer a winner's curse problem whereby the senior lender outbids for DIP loans to good debtors and lets third-party lenders win the loan business of bad debtors (Rajan (1992), Von Thadden (2004)).

Untabulated results suggest that senior lenders in fact enjoy an advantage in the Chapter 11 financing market. Eighty-seven (sixteen) percent of debtors in my sample with a senior lender obtain financing from the senior lender (a non-senior lender) in the form of a cash collateral order or DIP loan. Among all sample debtors, seventy-two percent of debtors obtain Chapter 11 financing from the senior lender. For comparison outside the bankruptcy setting, between forty-nine and eighty-two percent of bank loan announcements (depending on how one classifies the ambiguous announcements) examined by Lummer and McConnell (1989) involve continuation of an existing bank relationship. For now, my evidence remains silent on the source of senior lender advantages. In future work, I can examine whether relationships with pre-bankruptcy senior lenders continue after emergence from bankruptcy. I tentatively claim that continued relationships after bankruptcy would be evidence of senior lender advantages apart from monopolistic legal rights provided by the Code.

4.1.3. Distribution of control rights

Since senior lenders provide Chapter 11 financing more frequently than other lenders, one expects senior lenders to obtain more control rights. Table 5 shows the distribution of

control rights among senior lenders and non-senior lenders in Chapter 11. Senior lenders obtain seven of nine control rights more frequently than non-senior lenders in Chapter 11. A senior lender acquires at least one control right in sixty-nine percent of cases while a non-senior lender acquires at least one control right in fourteen percent of cases. Among the fifty-one debtors that enter the DIP loan market and obtain a DIP loan, the senior lender provides the DIP loan in seventy-three percent of cases and obtains at least one control right in eighty-two percent of cases. A non-senior lender acquires at least one control right in twenty-four percent of cases. The higher frequency of control rights in the hands of senior lenders suggests senior lenders have competitive advantages in the market for control in Chapter 11. Again, one cannot infer the extent to which senior lender control derives from monitoring advantages, monopoly rights to adequate protection, or other sources. Below, I show that senior bank lenders obtain more control rights than senior non-bank lenders, which is consistent with a monitoring role for informed lenders.

4.2. Determinants of lender control

I provide evidence of relations between pre-bankruptcy financial structure and lender control in Chapter 11. I then examine the timing of the commencement of pre-bankruptcy lending relationships associated with lender control in Chapter 11.

4.2.1. Lender control in Chapter 11 and pre-bankruptcy financial structure

A debtor can commit to putting control in the hands of a lender in Chapter 11 with a financial structure that leaves the debtor dependent on external funding in Chapter 11. If banks have advantages over non-banks in exerting control in Chapter 11, the debtor can strengthen the

commitment to lender control in Chapter 11 by borrowing from a bank. The debtor can also strengthen the commitment by pledging liens on all assets including cash, in which case the debtor must obtain senior lender consent or provide adequate protection in order to use cash or cash proceeds in Chapter 11. Alternatively, the debtor can obtain a senior loan that includes a revolver with a concentration account, which can leave the debtor with little cash on hand upon commencement of the Chapter 11 case. I refer to a senior loan from a bank, a senior loan with security interests in all assets, or a senior loan with a revolver and concentration account as a *high control senior loan*. I hypothesize that lender power is higher among debtors with a senior lender and even higher when the senior loan is a high control senior loan.

Table 6 shows that ninety-two percent of debtors with a senior lender obtain a cash collateral order or DIP loan while thirty-three percent of debtors without a senior lender do so. All control rights except required acquisition and required liquidation are more common in the presence of a senior lender. Among debtors with a senior lender, control rights including management representation, concentration account, plan constraint, constraint on unsecured creditors, budget, and stay relief upon default are more frequent in the presence of a high control senior loan. Table 6 suggests that senior loans, and to a greater extent high control senior loans, serve as a commitment device for the debtor to put control in the hands of a lender in Chapter 11.

Table 7 examines proxies for lender control in a multivariate setting. The conclusions from the univariate evidence above remain qualitatively unchanged. In particular, control rights are higher in the presence of a senior loan and even higher in the presence of a high control senior loan. The lack of significance on the ratio of the senior loan amount to liabilities suggests that the presence of a senior loan or high control senior loan matters more than the size of the senior loan.

Debtors with positive operating earnings (EBIT) can more likely use operating earnings to finance operations, investment, administrative costs in Chapter 11, and adequate protection payments associated with depreciation than debtors with negative EBIT. Thus one expects debtors with positive EBIT to obtain DIP loan less frequently. I use EBIT in the fourth quarter before bankruptcy as a proxy for EBIT in Chapter 11 because debtors decreasingly issue public accounting reports as bankruptcy approaches. Consistent with expectations, Column 3 shows that debtors with positive EBIT obtain DIP loans less frequently.

Column 5 shows that DIP loans prime pre-bankruptcy more frequently when the DIP loan is from the senior lender. In columns 6 and 7, I estimate models of the number of control rights I observe in cash collateral orders or DIP loans for each debtor (up to nine).⁸ In column 7, I include only debtors that obtain a cash collateral order or DIP loan since the sum of control rights is mechanically zero for other debtors. Lenders obtain 1.3, 1.6, and 0.7 more control rights (before censoring at zero and nine) when the senior loan includes a revolver and concentration account, when the senior lender provides a DIP loan, and when the case takes place in the Southern District of New York, respectively.

4.2.2. The timing of high control lending relationships

To what extent do the contractual provisions associated with lender control in Chapter 11 arise before distress or after the onset of distress? Some bankruptcy law scholars focus on pre-distress contracts as the source of lender power in Chapter 11 (e.g. such as Baird and Rasmussen (2002, 2005)). However, Westbrook (2004) observes that researchers “do not offer evidence to support the claim that [lender] control results from contracts that pre-date the debtor’s financial

⁸ The results are qualitatively robust to using the natural logarithm of one plus the sum of control rights as the dependent variable.

distress (p. 829).” I preliminarily address the question by providing evidence on the timing of the inception of lending relationships associated with lender control in Chapter 11.

For each debtor with a senior bank lender, I determine the earliest date for which I can verify a relationship between the debtor and the senior lender based on court documents and SEC filings. The lack of electronically available SEC filings before the mid-1990’s, mergers, and the lack of SEC filings before a debtor issues publicly traded securities truncate my search. For example, I can trace the relationship between Alliance Entertainment and Chase Manhattan Bank to the “Third Amended” credit agreement dated July 25, 1995 and I record July 25, 1995 as the beginning of the relationship. Thus my estimates of the length of bank relationships represent lower bounds. I find that eighty-seven, sixty-three, and forty-three percent of senior bank relationships begin at least one, two, and three years before bankruptcy, respectively. For now, interpretation is difficult because I lack evidence on the timing of the onset of distress. Further, I do not know the extent to which control in Chapter 11 derives from the original loan contract or contract revisions as distress increases. I observe multiple waivers, amendments, or restatements to loan agreements as bankruptcy approaches for some debtors.

4.3. Lender control and Chapter 11 outcomes

In this section, I examine how lender control relates to the disposition of assets and the timing of the disposition of assets. Note that all results are conditional on entering Chapter 11 as a going concern. I do not analyze the eighteen sample debtors that enter Chapter 7 or enter Chapter 11 after ceasing operations.

4.3.1. Asset disposition

I examine relations between the presence of a senior loan or high control senior loan and asset disposition in Chapter 11. I classify asset disposition as reorganization, acquisition in whole, acquisition in parts, or piecewise liquidation. I say the debtor remains a going concern unless the debtor liquidates piecewise. Table 8, panel A shows that among all debtors that enter Chapter 11 as a going concern, 36.7 percent reorganize, 42.2 percent are acquired in whole or parts, and 21.1 percent liquidate piecewise. Debtors with a senior bank loan liquidate more frequently, but three-quarters remain a going concern.

In Panel B of Table 8, I control for other factors that can affect asset disposition. Debtors are less likely to remain a going concern in the presence of a senior bank lender. I find weaker relations between asset disposition and the presence of a high control senior loan when using a revolver with concentration account or liens on all assets as the proxy for a high control loan. For comparison with the closest existing empirical evidence, Dahiya et al. (2003) find a statistically insignificant negative relation between the probability of remaining a going concern and the presence of a DIP loan from a pre-bankruptcy lender.

Turning to the control variables, the probability of remaining a going concern or reorganizing increases in debtor size and profitability and is higher when the bankruptcy is prenegotiated. The probability of remaining a going concern is lower among cases in New York's Southern District. Higher market-to-book debtors are more likely to reorganize. The probability of remaining a going concern or reorganizing increases in debtor size and is higher when the bankruptcy is prenegotiated. Overall, the evidence suggests that debtors with a senior bank loan have a bias toward liquidation, but other factors affect asset disposition too.

4.3.2. *Time to asset disposition*

I view the senior lender as long a call option on the debtor's assets with a strike price of zero (*option 1*) and short a call option with a strike price equal to the face value of the senior loan (*option 2*). Junior claimholders hold the long position in option 2.⁹ With respect option 2, the senior lender prefers low variance of underlying asset value and short time-to-maturity. Because the variance of the underlying assets goes to zero when the firm sells its assets and the call option expires upon confirmation of a plan, the senior lender prefers earlier liquidation, acquisition, or reorganization. I measure the time between the commencement of the bankruptcy case and the earlier of liquidation, acquisition, or confirmation of a plan, which I call *time to asset disposition*. If option 2 dominates option 1 in determining the senior lender's preference for time to asset disposition, perhaps because asset value is closer to the strike price of option 2, one expects time to asset disposition to decrease in senior lender control.

Note that time to asset disposition differs from the time spent in various administrative stages of bankruptcy, which Bris, Welch, and Zhu (2006) and others examine. For debtors that reorganize, debtors decide asset disposition and claim disposition simultaneously when negotiating a reorganization plan. For debtors that get acquired or liquidate, however, the debtor can decouple asset disposition from claim disposition. For debtors that get acquired, I identify the asset disposition date as the date the bankruptcy court approves the sale of the last of the debtor's operating assets. For debtors that liquidate, I identify asset disposition as the earliest date the debtor commits to cease operating. For example, I identify the asset disposition date of Bradlees, Inc. as the date the court authorizes a going out of business sale of all inventory.

⁹ I ignore the dual status of undersecured senior loans. Under the Code, a loan enjoys secured status up to the value of the collateral and unsecured status for amounts greater than the value of collateral (cite).

In Table 9, panel A, assets remain in bankruptcy for 6.3 months at the median. The shortest time to asset disposition is one day and the longest is almost four years.¹⁰ Among reorganizing debtors, the median time to asset disposition is 10.6 months. For comparison, Bris, Welch, and Zhu (2006) report median time from Chapter 11 commencement to plan submission, and from plan submission to plan confirmation of 5.0 and 5.1 months, respectively.¹¹

Table 9, panel B provides estimates of models of time to asset disposition. Focusing first on the control variables, time to asset disposition increases in debtor size. One expects cases of larger debtors to be more complicated and take longer. Also, administrative costs of bankruptcy as a fraction of debtor value decrease in debtor size (cite). Time to asset disposition is shorter when the bankruptcy is prenegotiated or takes place in the Southern District of New York. Time to asset disposition is longer in the presence of suspected accounting problems or fraud prior to bankruptcy. Debtors that reorganize take longer to dispose of assets. The reorganization dummy suffers from the problem that one does not know on the bankruptcy entry date whether the debtor reorganizes. The results are qualitatively robust to exclusion of the reorganization dummy.

In columns 1 and 2, I use the existence of a senior lender, a senior bank lender, and a senior loan with revolver and concentration account as proxies for lender control in Chapter 11. Time to asset disposition is lower in the presence of a senior bank lender. In untabulated results, I fail to find the negative relation that Dahiya et al. (2003) observe between time to asset disposition and the presence of a DIP loan or DIP loan from a pre-bankruptcy lender even when

¹⁰ The shortest case involves Cross Media Marketing, which enters Chapter 11 as a going concern and decides to liquidate in conjunction with commencement of the bankruptcy case. Cross Media commits to the liquidation decision by shutting down sales and marketing and firing all sales and marketing employees, which reduces headcount from about 750 to forty. Remaining employees collect receivables and wind down the debtors affairs (see page 11 of the Disclosure Statement for Debtor's Second Amended Plan of Distribution for Cross Media Marketing dated March 17, 2004). The longest case involves the reorganization of Complete Management.

¹¹ The sample in Bris, Welch, and Zhu (2006) includes corporate bankruptcies filed in the New York Southern District or Arizona between 1995 and 2001 and excludes prepackaged bankruptcies and bankruptcies that end in dismissal.

using the Dahiya et al. model specifications. Perhaps the relations in Dahiya et al. are specific to the sample, which predates my sample. Or, perhaps the relations are too weak to observe in my smaller sample.

In column 3, I use more direct proxies for lender control. Time to asset disposition is insignificantly related to the presence of a cash collateral order or DIP loan. Time to asset disposition decreases in the sum of control rights with a t-statistic of 1.34.

Because the sensitivity of an option to time-to-maturity decreases in the distance between the value of the underlying asset and the strike price, I hypothesize that time to asset disposition increases as the value of the debtor's assets increases beyond the strike price of option 2 (*positive moneyness*) in the presence of a high control senior loan. As the value of the debtor's assets falls below the strike price of call option 2 (*negative moneyness*), the senior lender's preference for short time-to-maturity on option 2 decreases and the controlling lender's preference for long-time-to-maturity on option 1 increases. Thus I hypothesize that time to asset disposition increases as asset value falls below the face value of the senior loan in the presence of a high control senior loan. I use the book value of assets on the bankruptcy date as a proxy for asset value.

Columns 4 and 5 of Table 9 test the sensitivity of time to asset disposition to the moneyness of option 2. Among debtors with a senior bank lender in column 4, time to asset disposition increases in positive moneyness with a t-statistic of 1.53. Among debtors with a senior loan with revolver and concentration account in column 5, time to asset disposition increases in positive moneyness with a t-statistic of 3.06. In both columns 4 and 5, I fail to find significant sensitivity of time to asset disposition to negative moneyness. Perhaps time in bankruptcy offers fewer benefits as the value of junior claims approaches zero and the senior

lender is the only claimholder with a valuable claim. Or perhaps higher administrative costs relative to asset value discourage time in bankruptcy.

4.4. Senior lenders and CEO turnover

When a debtor is healthy, directors set hiring and compensation policy on behalf of equityholders. When a debtor is distressed, however, the influence of lenders over firm policy increases. For example, lenders gain influence through the right to repossess assets or file an involuntary bankruptcy petition after the debtor defaults. Also, case law suggests directors owe a fiduciary duty to creditors when the firm is insolvent or in the “vicinity of insolvency” (Bainbridge (2006) summarizes the case law). After the debtor enters bankruptcy, senior lenders obtain control rights as I show above. Gilson and Vetsuypens (1993, 1994) report that management wealth is sometimes tied to creditor interests in distress or Chapter 11. Gilson and Vetsuypens (1994) discuss senior lender-specific incentives to replace CEO’s of distressed debtors. Incentives include reducing lender liability, installing a CEO who is more likely to liquidate the debtor, and installing a CEO who will bargain in good faith.¹²

On the one hand, if senior lenders have stronger incentives than other claimholders or directors to replace managers, one expects to observe higher CEO turnover among distressed or bankrupt debtors with high control senior lenders. On the other hand, the prospect of a lender exerting control over hiring and compensation policy provides managers with incentives to buy lender friendliness where friendliness indicates a propensity to provide job security and high compensation. A manager can pay a lender to be friendly *ex ante* with generous contract terms or *ex post* with generous payouts in the restructuring plan - in both cases at the expense of other claimholders.

¹² One can argue that lender influence over CEO turnover should increase lender liability.

Table 10, panel A shows that forty-eight, thirty-six, and twenty-four percent of sample debtors change CEOs in the two years, one year, and six months before bankruptcy, respectively. For comparison, Gilson (1989) reports top management turnover of fifty-five percent in the two years before Chapter 11. LoPucki and Whitford (1993) report CEO turnover of fifty-six percent in the eighteen months before Chapter 11. Both Gilson and LoPucki and Whitford use samples of Chapter 11 cases that commence in the 1980's. In the univariate setting, I fail to find statistically significant relations between pre-bankruptcy CEO turnover and the presence of a senior lender or a high control senior loan (all untabulated except for presence of a senior bank loan).

In the multivariate setting in Table 10, panel B, pre-bankruptcy CEO turnover is lower in the presence of a senior lender in the six months before bankruptcy, but not when the senior lender is a bank, the senior loan includes a revolver with concentration account (untabulated), or the senior loan has a lien on all assets (untabulated). Pre-bankruptcy CEO turnover is higher among debtors with accounting problems or suspected fraud. CEO turnover increases in the median two-digit SIC industry CEO turnover. Overall, I fail to find associations between pre-bankruptcy turnover and high control senior loans. In future work, I can control for other factors that can affect CEO turnover such as CEO ownership, whether the CEO is a founder, the tenure of the CEO, and the length of the senior lender relationship.

My evidence on CEO turnover *during* Chapter 11 is preliminary and I omit it from the paper for now. For reference, LoPucki and Whitford (1993) report CEO turnover of sixty-nine percent during Chapter 11.

5. Conclusion

The evidence I provide allows a more focused debate on the role of lender power in Chapter 11. I provide the first evidence on the frequency of the types of lender control rights and priority upgrades that are the subject of attention in the bankruptcy law literature. The frequencies of control rights suggest that control rights are tailored to each debtor rather than the result of boilerplate agreements that debtors, lenders, and bankruptcy judges approve.

Senior lenders provide most financing in Chapter 11 and obtain most of the lender control rights that I observe, which suggests senior lenders have advantages over other lenders in Chapter 11. The advantages appear stronger when the senior loan is an information-intensive loan, which is consistent with efficient monitoring. However, I do not reject some alternative possibilities. Perhaps information intensive senior loans include contract terms that mechanically provide lenders with more power in Chapter 11. Or, perhaps information-intensive senior lenders have advantages, but the advantages lie in maximizing the value of the senior lender claim at the expense of other claimholders.

Debtors commit to lender control in Chapter 11 through pre-bankruptcy senior loans. Senior lender relationships typically begin at least two years before Chapter 11. This evidence provides the basis for a future examination of the extent to which debtors commit to lender control in Chapter 11 before the onset of distress.

Debtors with a high control senior loan have a bias toward liquidation, but three-quarters remain a going-concern. Factors other than the presence of a controlling lender dominate the liquidation versus continuation decision for most debtors. I find no effect of high control senior loans on the reorganization versus acquisition or liquidation decision. As theory predicts, debtors dispose of assets sooner in the presence of a high control senior loan. Also consistent

with theory, the senior lender's preference for short time to asset disposition decreases as the senior lender becomes more in-the-money.

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Table 1
Distribution of bankruptcy cases

Sample bankruptcies by year and judicial district. Sample bankruptcies are drawn from 824 bankruptcy filings by Compustat listed debtors between 1997 and 2004 in one of fourteen judicial districts. To be in the sample, the substantially full set of court documents must be available in by Compustat-listed firms with the full set of court document available in Public Access Court Electronic Record (PACER).

Judicial district	1997	1998	1999	2000	2001	2002	2003	2004	Total
Arizona	0	1	0	3	4	1	1	1	11
Colorado	0	0	0	0	0	2	0	1	3
Florida Southern	0	0	0	0	0	0	0	0	0
Massachussettes	0	0	0	1	4	3	5	1	14
Michigan Eastern	0	0	0	0	0	0	0	0	0
Minnesota	0	1	1	0	0	7	3	1	13
New York Eastern	0	0	0	0	0	0	1	1	2
New York Southern	3	4	11	10	18	26	20	9	101
New York Western	0	0	0	0	0	0	1	1	2
Ohio Northern	0	0	0	0	0	1	1	0	2
Ohio Southern	0	0	0	0	0	1	3	4	8
Texas Western	0	0	0	0	2	1	1	1	5
Virginia Eastern	0	1	0	1	2	2	1	1	8
Washington Western	0	0	0	0	0	1	3	1	5
Total	3	7	12	15	30	45	40	22	174

Table 2
Debtor characteristics

Characteristics based on a sample of 90 Compustat-listed debtors that enter Chapter 11 as a going concern between 1997 and 2004. All figures refer to the bankruptcy date unless noted. Except for the financial data from four quarters before bankruptcy provided by Compustat, all data are hand collected from Public Access Court Electronic Record (PACER) and SEC documents. P-values for equality between subsamples are based on Wilcoxon rank sum and Fisher's exact tests.

Panel A: Characteristics of sample debtors

(\$ in millions)	N	Min	Q1	Median	Q3	Max
Assets	88	0.05	10.07	54	249	22,438
Liabilities	88	0.70	16.54	65	337	12,394
Assets / liabilities	88	0.01	0.42	0.65	1.04	7.77
Secured liabilities	81	0.00	4.90	29	187	1,660
Senior loan if > 0	75	0.03	4.88	36	175	1,653
Senior loan / liabilities if > 0	73	0.00	0.20	0.46	0.66	0.98
EBIT / assets (4 qtrs before BR)	65	-0.86	-0.07	-0.02	-0.01	0.12
Market assets / book assets (4 qtrs before BR)	75	0.59	0.95	1.12	1.73	12.40
Assets / liabilities (4 qtrs before BR)	75	0.20	1.00	1.26	1.56	4.99
Senior "bank" loan	58					
Depository institution	44					
Non-depository institution	14					
Senior non-bank loan	17					
Private loan (e.g. hedge fund)	6					
Public bonds (secured)	4					
Strategic lender (e.g. customer, supplier, acquirer)	7					
No senior loan	15					

Panel B: Sub-samples by presence of senior bank loan

(\$ in millions)	Senior bank loan		No senior bank loan		Difference p-value
	N	Median	N	Median	
Assets	56	127	32	19	0.00
Liabilities	56	133	32	34	0.01
Assets / liabilities	56	0.74	32	0.49	0.02
Secured liabilities	53	53	28	4	0.00
Senior loan if > 0	58	49	17	7	0.01
Senior loan / liabilities if > 0	56	0.50	17	0.31	0.15
EBIT / assets (4 qtrs before BR)	42	-0.01	23	-0.09	0.00
Market assets / book assets (4 qtrs before BR)	50	1.06	25	1.42	0.01
Assets / liabilities (4 qtrs before BR)	50	1.26	25	1.25	0.37

Panel C: Nature of entry into Chapter 11

	All	Senior bank loan	No senior bank loan	Equality between subsamples
	Percent	Percent	Percent	p-value
Number of observations	90	58	32	90
Prenegotiated bankruptcy	35.6	32.8	40.6	0.50
Prenegotiated plan, vote before BR date	3.3	5.2	0.0	0.55
Prenegotiated plan, vote after BR date	8.9	5.2	15.6	0.13
Prenegotiated term sheet, no plan on BR date	10.0	10.3	9.4	1.00
Prenegotiated acquisition	14.4	12.1	18.8	0.53
Involuntary filing	1.1	0.0	3.1	0.36

Table 3
Description of control rights and priority upgrades

Examples of control rights and priority upgrades that a senior lender can obtain in Chapter 11. "Dual rights" have characteristics of both control rights and priority upgrades.

Control rights

Liability waiver	Court makes declaration that reduces or eliminates the risk of lender liability For example, the court declares the lender to be "not in control" of the debtor.
Management representation	Lender can can declare default upon changes to specific management positions
Concentration account	Court requires that debtor maintains a concentration account in control of lender
Acquisition required	Lender can declare default if debtor fails to meet milestones along path to acquisition
Liquidation required	Lender can declare default if debtor fails to meet milestones along path to liquidation
Budget	Access to cash requires compliance with a line item budget

Priority upgrades

Priming liens	DIP loan liens take priority over some pre-bankruptcy liens (DIP liens approved under §364(d))
Rollup	The pre-bankruptcy loan is upgraded to administrative priority or super-priority status
Accelerate principle	Debtor repays some principle on pre-bankruptcy loan during the case
Accelerate interest-only	Debtor pays interest-only on pre-bankruptcy loan during the case
Validate pre-bankruptcy loan	Debtor affirms amount, validity, and priority of pre-bankruptcy loan. Court restricts or prohibits challenges to amount, validity, or priority of the pre-bankruptcy loan.

Dual rights

Plan constraint	Lender can declare default if debtor proposes a plan that does not conform with lender specifications
Constrain unsecured creditors	Lender restricts funding for unsecured creditor's committee
Stay relief upon default	Court commits to waive stay in event of default to allow lender to enforce default remedies

Table 4
Frequency of control rights and priority upgrades

Control rights and priority upgrades observed in a sample of 90 Compustat-listed debtors that enter Chapter 11 as a going concern between 1997 and 2004. Table 3 describes the control rights and priority upgrades. All data are hand collected from Public Access Court Electronic Record (PACER) and SEC documents.

	DIP loan	Cash col	DIP loan or cash col order	
Observations in subsample	51	37	74	
Chapter 11 observations	90	90	90	
	Percent of subsample	Percent of subsample	Percent of subsample	Percent of full sample
Control rights				
Liability waiver	35	22	31	26
Management representation	39	8	30	24
Concentration account	73	43	68	56
Acquisition required	14	0	9	8
Liquidation required	4	3	4	3
Budget	57	84	73	60
Priority upgrades				
Priming liens	71	n/a	49	40
Rollup	37	n/a	26	21
Accelerate principle	49	32	49	40
Accelerate interest-only	10	11	12	10
Validate pre-bankruptcy loan	67	54	68	56
Dual rights				
Plan constraint	47	14	39	32
Constrain unsecured creditors	65	41	61	50
Stay relief upon default	90	41	73	60
Any control right or priority upgrade	96	95	99	81

Table 5
Distribution of control rights among senior and non-senior lenders

Allocation of control rights in a sample of 90 Compustat-listed debtors that enter Chapter 11 as a going concern between 1997 and 2004. Table 3 describes the control rights and priority upgrades. All data are hand collected from Public Access Court Electronic Record (PACER) and SEC documents. P-values for equality between subsamples are based on Fisher's exact tests.

	All debtors			Debtors with a DIP loan (37 of 51 from senior lender)		
	Senior lender right	Non-senior lender right	Equality between samples	Senior lender right	Non-senior lender right	Equality between samples
Number of observations	90	90	90	51	51	51
	percent	percent	p-value	percent	percent	p-value
Chapter 11 financing						
Cash collateral order	38	3	0.000	24	4	0.000
DIP loan	41	16	0.000	73	27	0.000
Cash col or DIP loan	72	19	0.000	84	31	0.000
Control rights						
Liability waiver	21	6	0.004	27	10	0.040
Management representation	21	3	0.000	33	6	0.001
Concentration account	52	3	0.000	71	6	0.000
Acquisition required	6	2	0.444	10	4	0.436
Liquidation required	3	0	0.246	4	0	0.495
Plan constraint	29	3	0.000	45	6	0.000
Constrain unsec creditors	49	2	0.000	65	4	0.000
Budget	52	11	0.000	53	18	0.000
Stay relief upon default	50	11	0.000	73	20	0.000
Any control right	69	14	0.000	82	24	0.000

Table 6
Control rights and pre-bankruptcy financial structure

Frequency of control rights enjoyed by any lender in subsamples of a sample of 90 Compustat-listed debtors that enter Chapter 11 as a going concern between 1997 and 2004. Table 3 describes the control rights and priority upgrades. All data are hand collected from Public Access Court Electronic Record (PACER) and SEC documents. P-values for equality between subsamples are based on Fisher's exact tests.

	All debtors			Debtors with a pre-bankruptcy senior lender								
	Pre-BR senior lender	No pre-BR senior lender	Equality between samples	Senior loan from bank	Senior loan from non-bank	Equality between samples	Liens on all assets	Liens on less than all assets	Equality between samples	Revolver with conc account	No revolver with conc account	Equality between samples
Number of observations	75	15	90	58	17	75	51	24	75	47	28	75
	percent	percent	p-value	percent	percent	p-value	percent	percent	p-value	percent	percent	p-value
Chapter 11 financing												
Cash collateral order	48	7	0.003	45	59	0.410	53	38	0.228	49	46	1.000
DIP loan	63	27	0.020	67	47	0.159	67	54	0.318	70	50	0.091
Cash col or DIP loan	92	33	0.000	98	71	0.002	96	83	0.079	98	82	0.025
Control rights												
Liability waiver	29	7	0.103	28	35	0.556	31	25	0.786	28	32	0.794
Management representation	28	7	0.105	34	6	0.029	31	21	0.417	38	11	0.016
Concentration account	65	7	0.000	79	18	0.000	73	50	0.071	85	32	0.000
Acquisition required	8	7	1.000	7	12	0.613	8	8	1.000	11	4	0.401
Liquidation required	4	0	1.000	5	0	1.000	6	0	1.000	6	0	1.000
Plan constraint	36	13	0.130	43	12	0.022	43	21	0.074	43	25	0.144
Constrain unsec creditors	60	0	0.000	66	41	0.094	69	42	0.042	72	39	0.007
Budget	67	27	0.008	67	65	1.000	75	50	0.064	74	54	0.079
Stay relief upon default	68	20	0.001	78	35	0.002	71	63	0.597	77	54	0.045
Any control right	88	33	0.000	93	71	0.024	96	71	0.004	98	71	0.001

Table 7
Determinants lender control

Determinants of proxies for lender control in a sample of 90 Compustat-listed debtors that enter Chapter 11 as a going concern between 1997 and 2004. Sum of control rights equals the number of lender control rights that I observe for each debtor among the nine control rights that I examine. Senior loan refers to the most senior, secured, financial loan, if any. DIP loan refers to a loan obtained during the bankruptcy case. Except for the financial data from four quarters before bankruptcy provided by Compustat, all data are hand collected from Public Access Court Electronic Record (PACER) and SEC documents. Parentheses contain t-statistics.

	1	2	3	4	5	6	7
Dependent variable	Cash Col or DIP loan	DIP loan	DIP loan	DIP loan from senior lender	Priming DIP loan	Sum of control rights	Sum of control rights
				Debtors with DIP loans	Debtors with DIP loans		Debtors with cash col or DIP loan
Sample selection	All	All	All			All	
Intercept	-1.11 (-1.36)	-1.19 (-2.02)	-1.35 (-2.18)	-7.49 (-15.31)	0.11 (0.10)	-0.57 (-0.56)	2.77 (2.75)
Senior lender dummy	1.00 (1.62)	0.80 (1.52)	0.83 (1.60)	5.43 (11.10)	-0.60 (-0.54)	1.76 (1.91)	-0.38 (-0.44)
Senior lender is a bank dummy	1.36 (1.89)	0.01 (0.03)		1.61 (2.25)	-0.94 (-1.05)	0.92 (1.26)	-0.15 (-0.26)
Senior revolver and conc account dummy	0.30 (0.40)	0.64 (1.50)	1.01 (2.16)	1.65 (2.35)	-0.72 (-1.04)	2.13 (3.11)	1.34 (2.63)
Senior loan / liabilities	1.15 (0.85)	-0.41 (-0.61)				-0.14 (-0.13)	-0.24 (-0.31)
Assets > senior loan dummy	1.00 (1.34)	0.41 (1.06)	0.77 (1.77)	-0.18 (-0.24)	-0.96 (-1.13)	0.15 (0.24)	-0.42 (-0.87)
EBIT>0 dummy (4 qtrs before BR)			-1.18 (-2.18)				
Ln (liabilities)	-0.13 (-0.99)	0.01 (0.10)	-0.01 (-0.14)	0.06 (0.36)	0.62 (3.12)	-0.09 (-0.63)	-0.09 (-0.86)
DIP lender is senior lender					1.26 (1.81)		1.61 (2.59)
DIP loan dummy							0.51 (0.87)
New York Southern District dummy	0.39 (0.76)	0.32 (0.97)	0.43 (1.02)	0.87 (1.19)	-0.83 (-1.53)	1.09 (2.04)	0.74 (1.80)
N	88	88	64	49	49	88	72
Model type	Probit	Probit	Probit	Probit	Probit	Tobit	Tobit

Table 8
Asset disposition

Chapter 11 outcomes in a sample of 90 Compustat-listed debtors that enter Chapter 11 as a going concern between 1997 and 2004. Remain going concern is a dummy that takes a value of one for debtors that reorganize or get acquired as a going concern. Senior loan refers to the most senior, secured, financial loan, if any. Except for the financial data from four quarters before bankruptcy provided by Compustat, all data are hand collected from Public Access Court Electronic Record (PACER) and SEC documents. P-values for equality between subsamples are based on Fisher's exact tests. Parentheses contain t-statistics.

Panel A: Univariate analysis

	All	Senior bank lender	No senior bank lender	Equality between samples
Number of observations	90	58	32	90
	percent	percent	percent	p-value
Reorganization	36.7	34.5	40.6	0.65
Acquisition in whole	30.0	24.1	40.6	0.15
Acquisition in parts	12.2	15.5	6.3	0.32
Liquidation piecewise	21.1	25.9	12.5	0.18

Panel B: Multivariate analysis

Dependent variable	1 Remain going concern	2 Remain going concern	3 Reorganize	4 Reorganize
Intercept	0.01 (0.02)	2.07 (1.73)	-1.60 (-3.28)	-1.61 (-2.21)
Senior lender dummy	-0.08 (-0.11)		0.15 (0.31)	-0.36 (-0.56)
Senior lender is a bank dummy	-0.92 (-1.55)	-2.51 (-2.25)	-0.54 (-1.30)	-0.32 (-0.59)
Ln(liabilities)	0.47 (3.54)	0.47 (2.94)	0.26 (2.94)	0.25 (2.31)
Market assets / book assets (4 qtrs before BR)		0.20 (1.05)		0.33 (1.86)
EBIT / assets (4 qtrs before BR)		6.09 (2.07)		3.86 (1.51)
Prenegotiated bankruptcy dummy	1.62 (2.52)		0.44 (1.43)	0.68 (1.77)
New York Southern District dummy	-1.26 (-2.88)	-1.90 (-2.93)	0.26 (0.80)	0.25 (0.62)
N	88	64	88	64
Model type	Probit	Probit	Probit	Probit

Table 9
Time to asset disposition

The time between bankruptcy commencement and the disposition of assets in a sample of 90 Compustat-listed debtors that enter Chapter 11 as a going concern between 1997 and 2004. The asset disposition date refers to the earlier of the confirmation of a plan of reorganization or court approval to sell assets that will leave the debtor without going concern operations. Sum of control rights equals the number of lender control rights that I observe for each debtor among the nine control rights that I examine. The accounting problems or fraud dummy takes a value of one if the court documents identify accounting problems or management fraud as a factor leading to bankruptcy.

Positive moneyness equals $\ln(\text{assets}/\text{senior loan amount})$ if assets are greater than or equal to the face value of the senior loan. *Negative moneyness* equals $-\ln(\text{assets}/\text{senior loan amount})$ if assets are less than the face value of the senior loan. Except for the financial data from four quarters before bankruptcy provided by Compustat, all data are hand collected from Public Access Court Electronic Record (PACER) and SEC documents. P-values for equality between subsamples are based on Fisher's exact tests. Parentheses contain t-statistics.

Panel A: Univariate analysis

	Time to asset disposition (months)					
	N	min	q1	median	q3	max
All outcomes	90.0	0.03	2.3	6.3	13.6	47.3
Reorganization	33.0	0.9	5.2	10.6	15.2	47.3
Acquisition in whole	27.0	0.4	2.0	3.8	13.6	38.6
Acquisition in parts	11.0	1.8	2.5	6.4	13.1	19.5
Liquidation piecewise	19.0	0.03	0.6	3.8	5.9	20.6

Panel B: Multivariate analysis

Dependent variable	1	2	3	4	5
	$\ln(\text{days to asset disposition})$	$\ln(\text{days to asset disposition})$	$\ln(\text{days to asset disposition})$	$\ln(\text{days to asset disposition})$	$\ln(\text{days to asset disposition})$
Sample selection	All	All	All	Senior bank lender	Revolver with conc account
Intercept	4.68 (12.39)	4.69 (13.05)	4.63 (13.02)	3.65 (8.25)	3.39 (5.90)
Senior lender dummy	0.27 (0.65)	0.29 (0.74)			
Senior lender is a bank dummy	-0.94 (-2.53)	-0.78 (-2.16)			
Senior revolver and conc account dummy	0.285 (0.87)	0.189 (0.60)			
Sum of control rights			-0.09 (-1.34)		
Cash col or DIP loan dummy			0.34 (0.86)		
Positive moneyness				0.19 (1.53)	0.69 (3.06)
Negative moneyness				-0.05 (-0.24)	0.08 (0.37)
$\ln(\text{liabilities})$	0.20 (2.91)	0.14 (2.00)	0.10 (1.46)	0.29 (3.30)	0.26 (2.23)
Prenegotiated bankruptcy dummy	-0.66 (-2.59)	-0.78 (-3.19)	-0.68 (-2.76)	-0.91 (-2.99)	-0.58 (-1.68)
Accounting problems or fraud dummy	0.98 (2.77)	0.88 (2.59)	0.92 (2.74)	1.02 (2.65)	0.84 (1.83)
NYSB dummy	-0.34 (-1.26)	-0.44 (-1.70)	-0.42 (-1.65)	-0.83 (-2.85)	-0.99 (-2.90)
Reorganization		0.81 (3.06)	0.93 (3.48)	0.89 (2.53)	1.29 (3.25)
R-square	0.27	0.34	0.32	0.49	0.51
N	88	88	88	56	46
Model type	OLS	OLS	OLS	OLS	OLS

Table 10
CEO turnover

CEO turnover before and during Chapter 11 in a sample of 90 Compustat-listed debtors that enter Chapter 11 as a going concern between 1997 and 2004. Senior loan refers to the most senior, secured, financial loan, if any. Industry-adjusted EBIT/assets equals EBIT/assets minus the median two-digit SIC EBIT/assets among Compustat firms. The accounting problems or fraud dummy takes a value of one if the court documents identify accounting problems or management fraud as a factor leading to bankruptcy. Industry CEO turnover, which is calculated by two-digit SIC code and year, is the fraction of Execucomp listed firms with a CEO change from the prior year. Except for the financial data from four quarters before bankruptcy provided by Compustat, all data are hand collected from Public Access Court Electronic Record (PACER) and SEC documents. P-values for equality between subsamples are based on Fisher's exact or Wilcoxon rank sum tests. Parentheses contain t-statistics.

Panel A: Univariate analysis

	N	All (percent)	Senior bank lender (percent)	No senior bank lender (percent)	Equality between samples (p-value)
CEO change during:					
6 months before BR date	87	24.1	26.3	20.0	0.60
1 year before BR date	87	35.6	35.1	36.7	1.00
2 years before BR date	87	48.3	45.6	53.3	0.51
Bankruptcy (among debtors that reorganize)	25	36.0	29.4	50.0	0.39
BR date CEO is turnaround consultant	84	11.9	14.5	6.9	0.48
BR date CEO is founder or family blockholder	83	22.9	25.9	17.2	0.42
Mean BR date beneficial CEO ownership	83	6.0	7.2	3.6	0.27

Panel B: Multivariate analysis

Dependent variable	CEO turnover within:					
	6 months before BR	6 months before BR	1 year before BR	1 year before BR	2 years before BR	2 years before BR
Intercept	-0.94 (-2.02)	-1.57 (-2.37)	-0.45 (-1.05)	-1.43 (-2.31)	-0.35 (-0.80)	-0.92 (-1.53)
Senior lender dummy	-1.29 (-2.12)	-0.64 (-0.92)	-0.67 (-1.41)	0.03 (0.05)	-0.45 (-0.95)	0.28 (0.48)
Senior lender is a bank dummy	0.91 (1.71)	0.69 (1.04)	0.27 (0.69)	0.07 (0.13)	0.00 (0.01)	-0.42 (-0.80)
Industry-adj EBIT / assets (4 qtrs before BR)		-1.49 (-1.14)		-2.05 (-1.69)		-0.41 (-0.33)
Accounting problems or fraud	1.08 (2.48)	1.74 (2.61)	0.74 (1.84)	1.45 (2.29)	0.60 (1.48)	0.89 (1.42)
Industry CEO turnover	3.38 (1.39)	4.49 (1.48)	2.54 (1.16)	4.45 (1.61)	4.50 (2.01)	6.31 (2.21)
Pseudo R-sq	0.23	0.24	0.10	0.20	0.12	0.18
N	85	63	85	63	85	63
Model type	probit	probit	probit	probit	probit	probit