

Bankruptcy bargaining with outside options and strategic delay

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Abstract

This paper compares the bargaining process in conventional Chapter 11 arrangements with one alternative structure, known as “prepacks”. In prepacks, unsecured creditors’ payments depend only on the value of the outside option, which is given by the liquidation value of their claims. In conventional Chapter 11s, unsecured creditors’ outside option is smaller, but they additionally obtain a percentage of the remaining firm value, which compensates for the higher bankruptcy costs in these cases. It is shown that the presence of asymmetric information can lead to situations of extended bargaining, requiring further plans of reorganization before an agreement is reached. Claimants placing a low value on a firm are more likely to delay producing a plan of reorganization that would be immediately accepted.

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1. Introduction

Companies facing bankruptcy can either follow the reorganization path or liquidate. In corporate reorganization, regulated by Chapter 11 of the U.S. Bankruptcy Code, companies are able to continue to “do business as usual” following the bankruptcy filing,

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while a plan of reorganization is being agreed by all claimants. In contrast, in liquidation, regulated by Chapter 7, companies cease to exist and the proceeds are returned to investors on the basis of the priority structure of their claims.

A Chapter 11 debtor has an exclusivity period of 120 days immediately after the filing date when he has the sole right to propose and file a plan of reorganization with the Bankruptcy Court. In practice, the Court typically agrees to extend this stage. Should the debtor fail to obtain the approval for the plan after this period, any other interested party may propose his own plan of reorganization.¹

A plan can be confirmed in two ways providing it has been accepted by at least one class of impaired claimants (i.e., a class that does not receive full payment). Subsection 1129(a) enables confirmation of a “consensual plan.” In this case each class accepts the plan or is unimpaired (i.e., a class that receives full payment), providing each dissenting member of every impaired class receives at least what they should have obtained following liquidation. Alternatively, the proponent of the plan may invoke the “cram-down” provisions of the Bankruptcy Code in cases where any impaired class of creditors or shareholders has not accepted the plan. Subsection 1129(b) allows a cram-down to any dissenting class, providing the Court finds that the absolute priority rule holds for both the dissenting class and more junior classes (i.e., senior claims must be fully satisfied before junior claims are serviced). A plan of reorganization cannot however be confirmed when all classes of impaired claims have rejected it.

Rubinstein (1982) argues that, when the bargaining process is analyzed using the assumption of complete information, the parties involved are motivated to reach an immediate settlement in order to avoid further value depletion. This result suggests that bankruptcy processes should be rather speedy, thus avoiding extra bankruptcy costs. However, in reality a Chapter 11 firm spends on average over 2 years in bankruptcy (see, e.g., Weiss, 1990). In addition, about two-thirds of Chapter 11 firms (hereafter ‘Chapter 11s’) require more than one plan of reorganization before an agreement can be attained.²

This evidence of multiple plans suggests that there is typically a problem of imperfect and asymmetric information faced by the parties involved in a bankruptcy process. Even though all participants may hold some private information on the “true value” of the bankrupt firm, they do not necessarily have either accurate or similar information. Indeed, as Wruck (1990) argues, they might have no incentive to reveal what they know to the other participants. Bergman and Callen (1991) and Grossman and Perry (1986) show that in this situation, the bargaining process may last many rounds, resulting in firm value dissipation prior to the agreement being reached, if it is ever attained. As a result, many reorganization plans might need to be developed before the Bankruptcy Court’s confirmation.

To help understand the potential different bargaining scenarios, this paper looks at prepackaged bankruptcies (hereafter ‘prepacks’) and conventional Chapter 11 bankruptcies. Prepacks are a form of corporate restructuring in which the debtor and the creditors negotiate the terms of the reorganization outside the Court under Subsection 1126(b) of the Bankruptcy Code. However, a bankruptcy petition and a plan of

¹ The requirements for the approval are two-thirds in value and a majority in number for each class of creditors, and two-thirds in value for shareholders.

² In my sample, the average number of reorganization plans of firms with more than one plan is 3.2.

reorganization must still be filed and ratified by the Court, as in a conventional Chapter 11. Because part of the bargaining has already taken place prior to filing for Chapter 11, prepacks are often regarded as a less time consuming and costly bankruptcy procedure (see [Tashjian et al., 1996](#); [Li, 1999](#)). Nevertheless, some prepacks may require more than one plan of reorganization, in particular when the vote regarding the plan of reorganization takes place in Chapter 11 (post-voted prepack) instead of prior to the filing (pre-voted prepack).

The contribution of the paper to the literature is threefold. First, assuming complete information, a model is developed that distinguishes between prepack and conventional Chapter 11. As in [Sutton \(1986\)](#), the model developed considers a two-player game with outside (or opt-out) options, i.e., opportunities that if taken, end the bargaining process, and also accounts for the possibility of an exogenous breakdown in the negotiations. The analysis incorporates the key features of Chapter 11 bankruptcy, with Player 1 representing the class of equity-holders and Player 2 the class of unsecured creditors. Player 2 has a credible outside option, given by the liquidation value of his claim on the firm in the event of a failed reorganization. This liquidation value is modeled as a parameter α ($\alpha \leq 1$) multiplied by Player's 2 claim on the firm. In this case, equilibrium is reached when Player 2 receives marginally more than his outside option. In the event of an exogenous breakdown in the negotiations, Player 2 receives an additional amount, which is given by a percentage of what is left to distribute (i.e., Player 2 “splits-the-difference”).

Second, the model is tested empirically by looking at the bargaining process for 144 Chapter 11 firms that reorganized successfully and completely over the period January 1986 to December 1997.³ A firm reorganizes successfully when it emerges from bankruptcy with either its independence preserved, or else it is acquired or merged. The main finding is that in prepacks, the unsecured creditors' payment structure has only one component, which reflects their outside option. However, in conventional Chapter 11s, the unsecured creditors' payment structure has two components. The first component reflects unsecured creditors' outside option, which is smaller than in the case of a prepack. This is consistent with evidence presented by [Tashjian et al. \(1996\)](#) of higher solvency and profitability in prepacks. The second component consists of a proportion of the remaining value of the firm, in order to compensate unsecured creditors for the extra bankruptcy costs of a longer bankruptcy process (again, see [Tashjian et al., 1996](#)). These results suggest that unsecured creditors are willing to receive only their outside option in a prepack to avoid extra bankruptcy costs. In addition, since part of the bargaining has taken place prior to filing for bankruptcy, prepacks are less likely to face a breakdown in negotiation (e.g., the plan of reorganization being confirmed by cram-down).

Third, the paper explains the existence of multiple plans of reorganization in the context of information asymmetry by drawing on the literature of strategic delay. [Admati and Perry \(1987\)](#) and [Cramton \(1992\)](#) state that bargainers signal their relative strength by using strategic time delay. [Cramton \(1992\)](#) argues that initially, bargainers delay making offers. As time goes on, they become more pessimistic regarding the value to be

³ The sample does not include Chapter 11s still in process at the end of the sample period. See [Li \(1998\)](#) for ways to deal with censored observations when the Chapter 11 firms are still under protection at the end of the sample period.

distributed, and so it becomes more probable that they will accept a first offer. The results show that even though single-plan firms spend less time in bankruptcy, it takes them a significantly longer time to propose their plan of reorganization than it does multiple-plan firms to propose their first plan. This evidence demonstrates that claimants place a lower value on single-plan firms, and this is the reason why they delay putting forward a plan of reorganization, which, once proposed, will most likely be immediately accepted.

The paper is organized as follows: Section 2 puts forward a bankruptcy bargaining model. Section 3 presents the data and method. Section 4 analyses the empirical evidence and Section 5 concludes.

2. A bankruptcy bargaining model

The model developed follows [Sutton \(1986\)](#), who analyses the impact of an outside option on the bargaining equilibrium. His model incorporates two players. Player 1 has the first move advantage and Player 2 has access to an outside option, which is always available. The threat of having recourse to such an option is credible, i.e., the option exceeds what Player 2 would have obtained in a game without outside options.

Taking into account the bankruptcy framework, Player 1 represents the equity-holders, with the first move advantage given by the exclusivity period, and Player 2 represents the class of unsecured creditors. Secured creditors constitute the third class of claimants typically considered in bankruptcy studies (see, e.g., [Weiss, 1990](#); [Franks and Torous, 1994](#)), but they are considerably less involved in the bargaining process.

As in [Sutton \(1986\)](#), two different cases are considered. In Case 1, the pressure on the players to settle down derives exclusively from their impatience, given by their respective discount factors. Player 1 thus needs to offer marginally more than Player 2's outside option in order to reach an agreement.

The payments received by unsecured creditors following bankruptcy can be modeled in either relative or absolute terms. In the first instance, their payments are taken as a proportion of their estimated claims (i.e., unsecured creditors' recovery rates), or as a proportion of the total distribution. In the second instance, their payments are taken as a dollar amount. In what follows, the model will be using the second approach because it makes clearer the process of incorporating the other claimants in the total distribution.

Unsecured creditors have a credible outside option. In the absence of an agreement, the firm is liquidated and absolute priority rules are enforced. In this case, equity-holders usually do not recover anything. This outside option can be represented as a parameter α ($\alpha \leq 1$) times the estimated unsecured creditors' claims (UNSEST), where α corresponds to the percentage recovery rate for unsecured creditors:

$$\alpha \times \text{UNSEST}. \quad (1)$$

In Case 2, [Sutton \(1986\)](#) introduces an additional source of pressure. There is the possibility that a breakdown in the negotiations might be exogenously imposed, under which players would receive their outside options. Alternatively, [Osborne and Rubinstein \(1990\)](#) regard a breakdown as the event that the threat by one of the parties (Player 2) to terminate the negotiations is actually realized. Now, Player 1 needs to offer marginally

more than Player's 2 outside option plus a half of what is left in the "whole pie" (i.e., Player 2 "splits-the-difference").

To capture the possibility of a breakdown in the negotiations, it is assumed that unsecured creditors are also offered a proportion β of what would be left from the bankrupt estate, after paying secured creditors (SECPAY) and the outside option of unsecured creditors. This value can be stated as:

$$\beta \times (\text{TOTAL} - \text{SECPAY} - \alpha \times \text{UNSEST}), \quad (2)$$

where "TOTAL" represents the total payments to all claimants. The total payoff to unsecured creditors (UNSPAY) is thus given by:

$$\text{UNSPAY} = \alpha \times \text{UNSEST} + \beta \times (\text{TOTAL} - \text{SECPAY} - \alpha \times \text{UNSEST}). \quad (3)$$

"TOTAL" can be replaced with the sum of the payments to all claimants, secured creditors, unsecured creditors, and equity-holders (EQPAY):

$$\text{UNSPAY} = \alpha \times \text{UNSEST} + \beta \times (\text{UNSPAY} + \text{EQPAY} - \alpha \times \text{UNSEST}). \quad (4)$$

After rearranging, the equation can be simplified to:

$$\text{UNSPAY} = \alpha \times \text{UNSEST} + \frac{\beta}{1 - \beta} \times \text{EQPAY}. \quad (5)$$

Using re-parameterization, the final relationship is:

$$\text{UNSPAY} = \alpha \times \text{UNSEST} + \lambda \times \text{EQPAY}. \quad (6)$$

This general expression represents Case 2 in [Sutton \(1986\)](#). Case 1 serves as a special subcase, with $\lambda=0$.

3. Data and method

The main source of data is the Bankruptcy DataSource. This database includes bankruptcy information for every publicly traded company with assets in excess of \$50 million that is in bankruptcy proceedings, has defaulted on publicly traded debt, or has issued a distressed exchange offer. This restriction obviously confines the results of the analysis to the large publicly traded Chapter 11s included in the database. To obtain the plans of reorganization and to complement the Bankruptcy DataSource, other sources include the SEC (Securities Exchange Commission) filings (8Ks, 10Ks, and 10Qs) and the Dow Jones News Retrieval.

From this database a list was compiled of all 389 firms that went bankrupt between the 1st January 1986 and the 31st December 1997.⁴ Of these 389 cases, 212 reorganized independently, 40 were acquired in bankruptcy, 57 were liquidated in Chapter 11, 13 were converted to Chapter 7, and four were dismissed. At the end of 1997 the result was unknown or still pending in 63 cases. The initial sample thus consisted of 252 Chapter 11s

⁴ Multiple filings for Chapter 11 were treated separately. The sample included 15 "Chapter 22s," i.e., 15 firms that filed twice for Chapter 11 from 1986 to 1997.

Table 1
Time-series distribution of successful bankruptcies by filing date

Years	Prepacks			Non-prepacks			Total		
	One-plan	Multi-plan	Total	One-plan	Multi-plan	Total	One-plan	Multi-plan	Total
1986	0	0	0	0	1	1	0	1	1
1987	0	0	0	0	0	0	0	0	0
1988	0	0	0	0	1	1	0	1	1
1989	0	0	0	2	2	4	2	2	4
1990	0	0	0	3	13	16	3	13	16
1991	1	1	2	5	26	31	6	27	33
1992	3	7	10	1	9	10	4	16	20
1993	5	2	7	1	15	16	6	17	23
1994	2	2	4	0	4	4	2	6	8
1995	3	2	5	3	8	11	6	10	16
1996	3	2	5	3	7	10	6	9	15
1997	2	2	4	0	3	3	2	5	7
Total	19	18	37	18	89	107	37	107	144

This table lists firm bankruptcies by years and types of filing (prepack or conventional Chapter 11) for those firms that successfully reorganize. A firm reorganizes successfully when it emerges from bankruptcy with either its independence preserved, or else is acquired or merged. The figures are based on 37 Chapter 11s with only one plan of reorganization (one-plan firms) and 107 Chapter 11s with more than one plan of reorganization (multi-plan firms). The sample period is from January 1986 to December 1997.

that filed for bankruptcy reorganization in the U.S. and successfully emerged, either with their independence preserved or else were acquired/merged from January 1986 to December 1997. Overall, the initial sample included 71 (28%) prepacks and 91 (37%) single-plan firms.

Information regarding the number of plans of reorganization was not available for three companies (two conventional Chapter 11s and one prepack), and the data regarding the plans of reorganization was not accessible for an additional 33 prepacks and 72 conventional Chapter 11s. The final sample consists of 144 Chapter 11s, including 37 (26%) prepacks and 37 (26%) single-plan firms. The proportion of prepacks in the final sample matches closely the initial proportion of 28%, but there is a slightly smaller proportion of single-plan firms than the initial 37%. However, the share of prepacks in the single- and multiple-plan firms is very similar for both the initial and final samples, suggesting that the sample is fairly representative.⁵ Table 1 shows the time-series distribution by filing date and type of firm (single- versus multiple-plan) for the sample of 37 prepacks and 107 conventional Chapter 11s.

Claimants were classified into three classes: 'secured,' 'unsecured,' and 'equity.' The category 'Equity' included preferred stock, options, rights, warrants, and common stock. The estimated allowed claims and the amounts received upon reorganization were collected from the plans of reorganization, distributed by the classes 'cash,' 'debt,' 'preferred stock,' 'options' (which includes options, rights, and warrants), and 'shares.' In the case of multiple-plan firms, only data for their effective (last) plan were compiled. The

⁵ For single-plan firms, there are 51% prepacks in the final sample compared to 49% in the initial sample; for multiple-plan firms, there are 17% prepacks in the final sample compared to 16% in the initial sample.

prices of all securities (debt, preferred stock, options, warrants, rights, and common stock) and the number of outstanding shares were collected from the Center for Research in Security Prices (CRSP), Bloomberg, and Datastream. In the absence of these values, the estimates were taken to be those provided in the plans of reorganization (share prices), the face value (debt), or the liquidation preference (preferred stock), or were calculate by the author (options, warrants, and rights).⁶ All the news concerning the evolution of the bankruptcy process was obtained from the Dow Jones News Retrieval and the Bankruptcy DataSource.

4. Empirical evidence

4.1. Prepacks compared to conventional Chapter 11s

Tests are based on estimation of Eq. (6) above. Tables 2 and 3 show the results of the linear regressions for both prepacks and conventional Chapter 11s. The regression equation is rewritten as Eq. (7), where ε is a heteroskedastic and non-autocorrelated residual with a zero mean. The method used is GLS, with the weighting variable given by the inverse of the square root of the estimated unsecured creditors' claims for each particular plan of reorganization. This variable provided the best specification of the residual variance.

$$\text{UNSPAY} = \alpha \times \text{UNSEST} + \lambda \times \text{EQPAY} + \varepsilon. \quad (7)$$

The results suggest that prepacks can be considered as a Case 1 type of bargaining and conventional Chapter 11s are a Case 2.

In prepacks, the debtor acting on behalf of equity-holders somehow spares the creditors the increased bankruptcy costs of a conventional Chapter 11 filing. Tashjian et al. (1996) report bankruptcy costs of 1.9% of firm value for prepacks, which is lower than the 3.1% reported by Weiss (1990) for conventional Chapter 11s. In this way, the debtor can afford to offer the unsecured creditors just the value of their outside option, which is determined by what they would receive in a liquidation. Thus, equity-holders have considerably more bargaining power than creditors in prepackaged bankruptcies. The estimate of the opt-out option is 59.1% for single-plan firms and 50.9% for multiple-plan firms, and this difference can be explained by the extra bankruptcy costs as a result of the extended bargaining.

Also, because the parties in prepacks are more likely to reach an agreement, an exogenously imposed breakdown in the negotiations is unlikely to arise. Indeed, there was not a single example in the sample of a prepack that was subsequently liquidated.

In traditional Chapter 11s, claimants take into account not only the time value of the payments that they receive, but also the likelihood of a breakdown in the negotiations exogenously imposed by the Court. An example of a breakdown is the possibility of a plan of reorganization being confirmed by a cram-down. In this way, unsecured creditors receive not only their outside option but also a proportion of what is left to distribute.

⁶ The results were not sensitive to the approximately 5% of cases for which estimates were used.

Table 2
Regression analysis of unsecured creditors payments for prepacks

Unsecured payments	Unsecured claims	Equity payments ^a	<i>N</i>	<i>R</i> ²
One-plan firm	0.591 (0.000)	0.179 (0.800)	19	86.716
Multi-plan firm	0.509 (0.000)	0.208 (0.897)	18	77.893

This table reports results of GLS regressions of unsecured creditors payments for prepacks that reorganize successfully. A firm reorganizes successfully when it emerges from bankruptcy with either its independence preserved, or else is acquired or merged. The figures are based on 19 prepacks with only one plan of reorganization (one-plan firms) and 18 prepacks with more than one plan of reorganization (multi-plan firms). The sample period is from January 1986 to December 1997. The weighting variable is the inverse of the square root of the estimated unsecured creditors claims for each particular plan of reorganization. Regression coefficient *p*-values are shown in brackets. The regression is given by the expression:

$$\text{Unsecured creditors payments} = \alpha \times \text{Estimated unsecured creditors claims} + \lambda \times \text{Equity payments} + \varepsilon.$$

^a The estimates for α and R^2 are not significantly different in a model without the equity payments variable.

So, the bargaining in traditional Chapter 11s is similar to Case 2. In the event of a liquidation, a consistent estimate for unsecured creditors' recoveries is about 40% for both single- and multiple-plan firms. The opt-out option in conventional Chapter 11s is smaller than in prepacks, which is in line with higher solvency and profitability in the latter, as documented by Tashjian et al. (1996). Given that these authors have also shown that prepackaged bankruptcies have lower bankruptcy costs, unsecured creditors in conventional Chapter 11s demand extra compensation for bearing additional bankruptcy costs.

One way to examine closely the "split-the-difference" case in conventional Chapter 11s is to test the hypothesis that $\beta=50\%$, or $\lambda=1$. According to this case, equity-holders and unsecured creditors share the value of the firm left to distribute after accounting for secured creditors' payment and unsecured creditors' outside option. The different proportions that the parties involved in the process receive reflect their relative bargaining power. In single-plan firms, β is significantly larger than 50% at the 3.1% significance level. This result suggests that in single-plan firms, unsecured creditors are made "an offer that they cannot refuse," and so there is no need for further bargaining. In the effective plan of reorganization of multiple-plan firms, β is significantly smaller than 50% at the 0.5%

Table 3
Regression analysis of unsecured creditors payments for conventional Chapter 11s

Unsecured payments	Unsecured claims	Equity payments	<i>N</i>	<i>R</i> ²
One-plan firm	0.398 (0.000)	8.289 (0.047)	18	69.299
Multi-plan firm	0.399 (0.000)	0.663 (0.000)	89	74.602

This table reports results of GLS regressions of unsecured creditors payments for conventional Chapter 11s that reorganize successfully. A firm reorganizes successfully when it emerges from bankruptcy with either its independence preserved, or else is acquired or merged. The figures are based on 18 conventional Chapter 11s with only one plan of reorganization (one-plan firms) and 89 conventional Chapter 11s with more than one plan of reorganization (multi-plan firms). The sample period is from January 1986 to December 1997. The weighting variable is the inverse of the square root of the estimated unsecured creditors claims for each particular plan of reorganization. Regression coefficient *p*-values are shown in brackets. The regression is given by the expression:

$$\text{Unsecured creditors payments} = \alpha \times \text{Estimated unsecured creditors claims} + \lambda \times \text{Equity payments} + \varepsilon.$$

significance level, implying lower recoveries than in single-plan firms. These results indicate that in conventional Chapter 11s unsecured creditors bear a substantial part of the extra bankruptcy costs from the extended bargaining, since their share of the remainder is considerably smaller in a multiple-plan firm. This evidence suggests a decreasing bargaining power of unsecured creditors after failed negotiations.

4.2. Strategic delay

Table 4 describes the total time spent in the bankruptcy process for both single- and multiple-plan firms. Even though the sample includes only complete cases, the correct date at which the firms emerged from bankruptcy is not available for 15 companies (one prepack and 14 conventional Chapter 11s). Therefore, the analysis considers 36 prepacks and 93 conventional Chapter 11s.

Not surprisingly, on average, single-plan firms spend less time in the reorganization process than do multiple-plan firms. Indeed the multiple-plan firms take on average 473 days to reorganize while the single-plan firms only take 207 days. This fact can also be observed for the different types of filing, i.e., prepacks and conventional Chapter 11s. However, what is remarkable about the results in this table is that multiple-plan firms produce their first plan of reorganization long before single-plan firms develop their plan

Table 4
Time in bankruptcy by type of filing

Time in bankruptcy	Prepacks		Non-prepacks	
	Multi-plan	One-plan	Multi-plan	One-plan
Number of days from the filing date to the first plan of reorganization	17	19	78	15
Mean	8.4	49.6	282.7	405.5
<i>t</i> -test for difference in means	(0.000)		(0.016)	
Median	0.0	42.6	252.0	412.0
Mann–Whitney test for difference in medians	(0.000)		(0.012)	
Number of days from the first to the last plan of reorganization	17	–	78	–
Mean	139.7	–	179.6	–
Median	134.0	–	107.0	–
Number of days from the filing to the emergence date	17	19	78	15
Mean	194.0	49.6	533.5	405.5
<i>t</i> -test for difference in means	(0.000)		(0.083)	
Median	190.0	42.0	480.0	412.0
Mann–Whitney test for difference in medians	(0.000)		(0.138)	

This table shows time in bankruptcy (in number of days) by types of filing (prepack or conventional Chapter 11) for those firms that reorganize successfully. A firm reorganizes successfully when it emerges from bankruptcy with either its independence preserved, or else is acquired or merged. The time in bankruptcy is computed from the filing day until the emergence day, broken down by time elapsed until the first plan of reorganization and extra time until the last plan of reorganization. The figures are based on 144 successful Chapter 11s, 37 with only one plan of reorganization (one-plan firms) and 107 with more than one plan of reorganization (multi-plan firms). The sample period is from January 1986 to December 1997. *P*-values for tests of comparison of means and medians are shown in brackets.

of reorganization. This striking evidence corroborates theoretical analyses of strategic delay in bargaining and information asymmetry, such as Cramton (1992), who shows that a prolonged delay in making the first offer signals low valuation. Otherwise, the players would have been more enthusiastic about making offers earlier on in the process. In this case, Admati and Perry (1987) argue that the first offer will assume low valuation and will be identical to the perfect equilibrium offer in the equivalent complete information game. In the context of bankruptcy, this offer is likely to end the game, provided that the debtor manages to identify the creditors correctly. The high valuation creditors will not accept this first offer, and instead will counteroffer with the offer they would make in the complete information game, thus requiring the production of further plans of reorganization. These arguments are consistent with Carapeto (2004) who finds that single-plan firms have lower pre-petition solvency ratios than multiple-plan firms.

Creditors do not typically make offers. In the sample of 107 multiple-plan firms, there is only one case in which the first plan of reorganization was proposed by creditors and 10 cases in which the last plan of reorganization was proposed by creditors. For single-plan firms, in only three cases did the creditors propose the plan of reorganization.

5. Conclusion

This paper derives a model and presents empirical evidence on the bargaining process for a large sample of firms that filed for Chapter 11 and successfully emerged over the period January 1986 to December 1997.

The negotiation process for prepacks and conventional Chapter 11s seems to be substantially different. In prepacks, unsecured creditors are made an offer consistent with their outside option. This result supports evidence of smaller bankruptcy costs and a lower probability of breakdown in the negotiation for prepacks, so unsecured creditors are willing to accept just their outside option. In conventional Chapter 11s, unsecured creditors' outside option is smaller, given the lower solvency and profitability levels of these firms, but they receive in addition a proportion of any assets that are left to distribute. This result can be justified by larger bankruptcy costs and a greater likelihood of a breakdown in the negotiations in these cases.

The existence of both single- and multiple-plan firms can be explained by the literature of strategic delay in bargaining and information asymmetry. Single-plan firms are associated with low firm valuation. The bargainers then signal their valuation by delaying their first (and only) offer. The longer the wait for that first offer, the more likely it is that this offer is accepted, because creditors are more likely to be of the low valuation type. However, if the creditors are indeed of the high valuation type, this first offer will most likely be rejected, thus requiring that further negotiation take place.

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