Bankruptcy Resolution in Japan: Corporation Reorganization v.s. Civil Rehabilitation

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Very preliminary draft

Abstract

I present new evidence on bankruptcy resolution in Japan. Most bankrupt firms experience abnormal senior management turnover around bankruptcy filings, regardless types of filings. But bank lenders are less likely to intervene than they did before. Priority of claims is less violated in bankruptcy resolution than that in the United States. Most importantly, after bankruptcy law reform in April 2000, a bankrupt firm spends less time in bankruptcy under Civil Rehabilitation Law than under Corporate Reorganization Law. This strongly suggests that Japan is successfully resurrecting its legal system, in response to increasing number of bankruptcy filings.

1. Introduction

Since the 1980s, the heyday of the main bank studies, it has been well known as stylized fact that legal bankruptcy resolution is rarely employed. In particular, bankruptcies of publicly traded firms are uncommon, although not unknown. Most financially distressed large firms in Japan successfully restructure troubled debt privately with main bank intervention, rather than through formal bankruptcy. This has been viewed as a striking aspect of the main bank system: it provides a flexible,

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more effective private alternative to Corporate Reorganization Law, for dealing with financial distress and debt restructurings. In comparison, American banks less often rescue their corporate borrowers than Japanese banks do. Instead, legal bankruptcy resolution is more common in America than in Japan.

As the 1990s’ recession of in Japan persisting, however, quite a few publicly traded Japanese firms recently attempted to restructure debt privately but finally ended in bankruptcies, regardless of bank lenders’ rescue operations. At the same time, financial distressed firms, in increasing numbers, straightly filed for bankruptcy under Corporate Reorganization Law, Civil Rehabilitation Law of Japan, while bank lenders rejecting any financial rescues up until bankruptcy filing.

This study investigates senior management turnover, bank lender intervention around filings for bankruptcy. Either with or without bank lender intervention, most firms experience senior management turnover and asset restructurings prior to bankruptcy filings. In a reorganization bankruptcy, a court appointed receiver operates the firm and works out a reorganization plan and in principle the incumbent debtor’s directors depart. By comparison, in a civil rehabilitation bankruptcy, after the passage of Civil Rehabilitation Law, which takes effect after April 2000 instead of abandoned Composition Law, it is possible for the incumbent management of a bankrupt firm to remain to operate the firm and to work out a rehabilitation plan. Nevertheless, very few presidents of bankrupt firms remain.

Active bank interventions, such as financial rescue operations and dispatch of managers, are observed for ten firms. Meanwhile, a half of dozen or more large Japanese firms are continuing to privately restructure their debt, led by their main banks, even through additional rescue operations seem less likely to be successful. Our new evidence is very similar to the findings for private debt restructurings of U.S. firms in the early 1980s’ downturn of U.S. economy: a significant number of senior management turnover are initiated by American bank lenders. Recently, the cases where bank lenders jettisoning their troubled borrowing firms have increased sharply, probably because quite a few of previous debt restructurings initiated by main banks in the mid 1990s finally ended up in bankruptcies.

We also present evidence on bankruptcy resolution in Japan. First, the average time from filing of the bankruptcy petition under Corporate Reorganization Law to resolution of a sample of 13 firms is 2.0 years, and on average it takes 0.6 years for 16 firms to reach resolution from Civil Rehabilitation petition filing, 1.5 years shorter than that of Corporate Reorganization Law. Taken as a whole, the average time from
bankruptcy petition to resolution in Japan is 1.3 years, about 1.2 years shorter than the average time of a sample 37 New York and American Stock Exchange firms filing for bankruptcy in a large downturn of American economy between November 1979 and December 1986, which is reported in previous studies on American bankruptcy resolution. Hence, we believe that Japanese has a quite effective legal system, at least not inferior to American legal system.

For violation of priority of claims, priority of claims in 21 cases held among a sample of 25 publicly traded firms that filed for Corporate Reorganization Law or Civil Rehabilitation Law between January 1997 and August 2002, comparing with 29 cases of priority violation among the 37 American firms mentioned above. In comparing with U.S. bankruptcy resolution, the average percentage of claims paid to unsecured creditors and shareholders are far lower in Japan. This evidence strongly suggests that the once powerful main bank system seems not so quick as the U.S. capital markets, when it comes to moving capital from declining firms. After going bankrupt, some few of firms are acquired. Some are liquidated. Collectively, common stock ownership becomes more concentrated with industrial firms, investment funds and security houses. It is also quite similar to evidence on changes in ownership and control of U.S. firms that went bankrupt in the mid 1980s.

The analysis on the duration in bankruptcy suggests that firm size, loss carry forwards affect the duration oppositely under Corporate Reorganization Law and Civil Rehabilitation Law. The results also suggest that secured loans/total debt ratio increases the duration in reorganization, but it has no effect on the duration in rehabilitation. On the other hand, the presence of bonds outstanding increases only the length of time spent in rehabilitation but not the duration in reorganization. Most importantly, it takes less time for a bankrupt firm to work out its resolution under Civil Rehabilitation law than under Corporate Reorganization Law.

The study is organized as follows. Section 2 discusses rules and procedures of bankruptcy in Japan, in particular, procedures of Civil Rehabilitation Law, which takes effect on April 12000. Section 3 describes the data on bankruptcy filings. Management turnover and bank lenders' intervention are tracked. In Section 5, we present bankruptcy resolution. In Section 6, we apply logistic duration model to the bankruptcy data. Section 7 concludes.

2. Bankruptcy procedures in Japan
Before April 1 2000, three types of bankruptcy filings are available to corporations in Japan: Corporate Reorganization Law, Bankruptcy Law and Composition Law. Bankruptcy Law, equivalent to Chapter 7 of the U.S. bankruptcy Code (henceforth the Code), provides for the orderly liquidation of a firm’s assets by a court-appointed trustee. Corporate Reorganization Law is roughly equivalent to Chapter 11 of the Code, and provides for reorganization of a bankrupt firm, which is expected to continue as a going concern. For instance, Corporate Reorganization Law imposes an automatic stay that prevents creditors from collecting on their debt or foreclosing on their collateral from the date of the ruling to the date of approval of the reorganization plan or to the termination of the proceeding, or for the period of a year from the date of the ruling. Roughly speaking, a reorganization plan should be approved by each class of claimholders: two-thirds or more of the total amount of the votes of reorganization creditors, three-fourths or more of the total amount of the votes of reorganization secured creditors, and the majority of shareholders. With regard to a draft which provides for the reduction or exemption of reorganization security rights, or contains other provisions affecting the security rights, the consent shall be obtained from those who possess the right to vote corresponding to four-fifths or more of reorganization secured creditors.

A big difference is that, not the debtor’s management, but a court-appointed receiver operates the firm and works out a reorganization plan. And in principle incumbent managers depart the firm, once Corporate Reorganization proceeding commences. In other words, incumbent managers experience large personal costs under Corporate Reorganization Law. This aspect is rather similar to Chapter 7 of the Code and Bankruptcy Law of Japan.

Compared with Corporate Reorganization Law, Composition Law provides for reorganization without a court-appointed receiver. In a composition bankruptcy, the debtor’s management operates the firm. Composition Law has two weak points: a debtor’s management should propose a composition plan, as soon as filing composition, and secured creditors are allowed to foreclose on their collateral. In practice, Composition Law filings are extremely rare for large companies.

In response to skyrocketing increase of the number of bankruptcy filing, while Composition Law is abandoned, and instead Civil Rehabilitation Law takes effect after April 1 2000. Passage of Civil rehabilitation Law has been substantially revising bankruptcy administration in Japan. One aspect is equivalent to Chapter 11 of the Code as following: the debtor’ management operates the firm and works out a Rehabilitation
plan or liquidation, unless an interested party can prove management is incompetent. In a case where the debtor’s management is incompetent, Civil Rehabilitation Law provides the appointment of trustee. A passage of a rehabilitation draft plan requires affirmative votes by rehabilitation creditors who are entitled to vote and have attended the assembly and who constitute the majority of attending persons entitled to vote, and at the same hold one half or more of the total amount of the votes of the persons who entitled to vote. Compared with a passage of a reorganization draft plan, the approval seems simple.

Different from Corporate Reorganization Law, Civil Rehabilitation Law does not impose an automatic stay to protect the firm from creditor harassment. Generally, secured creditors may exercise their rights without following the rehabilitation proceedings. Based on application of an interested party, however, the court may, in case where an application for commencement of rehabilitation has been filed, order a discontinuance of exercise of a security right existing on properties of rehabilitation debtor. Moreover, the rehabilitation debtor, may, in a case where collateral properties are indispensable for continuation of business of the debtor, make an application to the court for an approval of extinguishing all the security right on the properties, by paying money equivalent to the market value of the properties to the court. In practice, corporate debtors prefer civil rehabilitation filings to corporate reorganization filings, as suggested by a rush of civil rehabilitation filings soon after Civil Rehabilitation Law comes into force after April 1 2000.

3. Sample selection

In this study, we first identify public traded bankrupt firms during January 1987-August 2002. A bankrupt firm is identified by the reference to a bankruptcy filing under Corporate Reorganization Law, or Bankruptcy Law, or Civil Rehabilitation Law of Nikkei Shinbun. Banks, housing loan companies, insurance companies and security companies are excluded, because they are deeply intervened by the government. As Table 1 shows, most of bankruptcy filings for reorganization and rehabilitation is clustered in the years 1997–2002. Eighty-seven percent of bankruptcies are filed in the years 1997-2002. This is consistent with the timing of the general recession of the 1990s, which is still persisting.
In this study, we focus on cases, where bankrupt firms are expected to continue as going concerns, in the years 1997-2002, when formal bankruptcy turns out to be common. As discussed above, to continue as a going concern, a bankrupt firm can file mainly bankruptcy under Corporate Reorganization Law or Composition Law before April 2000. Then Composition Law is abandoned and instead Civil Rehabilitation Law takes effect after April 1 2000. Bankrupt firms' management seems favorable to the passage of Civil Rehabilitation Law. Table 1 shows civil rehabilitation filings increase sharply from 2000. Probably expecting that they can remain, incumbent managers of bankrupt firms file bankruptcy under Civil Rehabilitation Law rather than Corporate Reorganization Law, or Bankruptcy Law. Indeed, there are four Corporate Reorganization filings but no Bankruptcy filings, comparing with nineteen firms filing for bankruptcy under Civil Rehabilitation Law, from April 2000 till September 2001. It is well-known that Mycal, a supermarket chain in financial distress, once dismissed its president, whose appointment is initiated by the main bank, and attempted to file for bankruptcy under Civil Rehabilitation Law, while its largest bank lender opposing. Mycal finally ended up in Corporate Reorganization filing. After Mycal's conversion into Corporate Reorganization case, Corporate Reorganization filings increase again and a few of firms file for bankruptcy under Bankruptcy Law, probably because creditors oppose Civil Rehabilitation filings initiated by debtors' managers, who attempt to avoid taking responsibility for bankruptcies.

This study consists a sample of 59 public traded firms that filed for bankruptcy under either Corporate Reorganization Law or Civil Rehabilitation Law in the years 1997-2002. In next section, we examine senior management turnover and bank lenders’ interventions around bankruptcy filings, by the reference to new president appointments, dispatch of directors and officers from bank, and bank lenders’ rescue operations. A rescue operation is defined as one of the following consequences (i) required interest or principal payments on loans are reduced; (ii) the maturities of loans are extended; or (iii) loans are swapped with equities. Information and relevant data are obtained from Nikkei and company annual report.

4. Management turnover, bank lenders’ intervention
Because all incumbent managers depart once a receiver in reorganization is appointed by the court, it is more important to look into senior management turnover prior to Corporate Reorganization filings. Starting four years before the year of Corporate Reorganization filing, we track senior management changes. As reported in Kaplan (1992), in normal top management succession, a retired president remains as Chairman with representative directorship. Except normal management succession, death or illness, Table 2A shows that fifty-seven percent of firms experience senior management changes, measured from date –4 to the date of Corporate Reorganization filing, measure in years. In two firm-years former directors of bank lender were appointed, and in one case a former director of the top shareholder was appointed, respectively. After turnover, most former presidents remain honorary positions such as chairmen but without representative directorship, advisory directors, part-time directors, directors without other titles, or consultants in original companies. Two of replaced presidents were removed down to vice presidents. No intended positions/occupations are available for the remaining four replaced presidents, who probably departed the original companies.

Insert Table 2 here

In the same way, we track senior management changes of firms, which filed for bankruptcy under Civil Rehabilitation Law. Panel B in Table 2 documents 30 abnormal senior management changes experienced by 25 firms around Civil Rehabilitation filing. Excluding 2 bankrupt firms caused by fraud of management, firms experienced abnormal senior management turnover account for 86% of all firms. Probably being forced to depart, half of presidents after replacement hold no specified positions or occupations. Including one president, who intended to resign, the number of firms, which presidents are removed, account for about 90% of all firms, through incumbent managers expect to remain by filing bankruptcy under Civil Rehabilitation Law rather than Corporate Reorganization Law. Out of twenty-nine firms, only three firms seem to survive under the control of their incumbent presidents. This result strongly suggests that, whatever legal procedures a bankrupt firm chooses, the senior manager is less likely to remain and not to take the responsibility of poor performance, which causes bankruptcy.

Prior to bankruptcy filings, eight firms attempt to restructure their debt, rescued by the bank lenders. They account for only 14% of all firms. One would expect that this happen in the U.S. but not in Japan, since the result suggests that main banks’ rescue
operations are not so popular as it was observed up till the early 1990s. Once, a public traded firm occasionally filed for bankruptcy under Corporate Reorganization Law, but it usually followed “a period of close involvement by the main bank in its restructuring effort” and was “triggered by the main bank’s decision to curtail its activist role and risking financial exposure”, as noted in Shard (1994). Even taking the fact that bank lenders appoint chairman, vice presidents, managing directors and directors to ten firms into account, at least forty-nine firms straightly file for bankruptcy, without following a period of close involvement of the main bank in this study. Our study provides an important piece of evidence: Japanese banks jettison a large proportion of troubled borrowers.

Why do Japanese banks to jettison their corporate borrowers, once they used to readily rescue their troubled borrowers? It is helpful to first review the main futures of the main bank system. Shard (1994) argues that three main reasons are considered regarding the main bank system. First, banks represent interests of various classes of claimholders, usually holding both equities and loans. Second, both debt and equities of Japanese firms are concentrated with a small number of banks, and usually banks hold largest blocks of Japanese firms. Third, Japanese firms traditionally heavily rely on bank loans.

In comparing the U.S. and Japanese legal regimes, however, Ramseyer (1995) suggests the following hypotheses, even through he asserts that we know only that both Japanese and U.S. banks rescuer a few large troubled firms and jettison most. First, Japanese firms heavily rely on bank loans than U.S. firms, in part because regulatory restrictions on bond issuance. Second, traditionally U.S. judges have looked skeptically at creditors who intervene in a debtor’s business and sometimes U.S. judges subordinate its claims, if a bank intervenes. It is called the doctrine of equitable subordination”. So, U.S. banks less often rescue their borrowers, perhaps, because rescues are often unprofitable. Under lender liability law in the U.S., creditors who intervene debtor’s affairs can be sued to pay various debtor liabilities. Nevertheless, U.S. banks sometimes place their representatives on the board of firms in financial distress directly and gain additional control over firms’ investment and financing policies, as reported in Gilson (1990). Taking into account the fact that a half dozen or more troubled Japanese firms, which have been rescued by their main banks once or twice,
are still continuing to restructure their debt privately, our results suggest that, not only in Japan but also in the U.S., restructuring debt privately led by bank lenders or other creditors, is important alternative to formal bankruptcy.

We suggest two hypotheses for this substantial change of the corporate governance of financial distress in Japan. First, the passage of Civil Rehabilitation Law reduces personal costs of debtors’ management. The question is, that it is unusual for a half of dozen or more firms filing for bankruptcy under Corporate Reorganization Law in the years of 1997 and 1998, when Civil Rehabilitation Law is not passed yet. Second, a downturn in Japanese economy allows researchers to test the hypotheses absent evidence. Because has been compared with that of a downturn in the U.S. economy corporate governance of an upturn in Japanese economy, the extent of roles of main banks in troubled firms is exaggerated. Now many Japanese firms are being forced to exit confronted with the competitive pressure from Chinese economy, as a large number of U.S. firms were confronted with the strong competitive pressure from Japanese economy. We believe this study complements to comparison studies on Japan and U.S. corporate governance in the 1980s.

5. Bankruptcy resolution

In this section we present evidence on bankruptcy resolution in Japan. We identify that seventeen rehabilitation plans, and thirteen reorganization plans are confirmed. Year/month/day is available for twenty-four firms. Only Year/Month but not day is obtained for one firm, Fujiko. And for one firm, Fujii, we only know that its rehabilitation plan is confirmed, between 03/2/01-11/20/01.

First, the average time from filing of the bankruptcy petition under Corporate Reorganization Law to resolution of a sample of 13 firms is 2.0 years, and on average it takes 0.6 years for 16 firms to reach resolution from Civil Rehabilitation petition filing, 1.5 years shorter than that of Corporate Reorganization Law. Taken as a whole, the average time from filing of the bankruptcy petition to resolution in Japan is 1.3 years, about 1.2 years less than an average time of 2.5 years for 37 New York and American Stock Exchange firms filing for bankruptcy in a large downturn of American economy between November 1979 and December 1986, as reported in Weiss (1990). Franks and Torouts (1989) report an average of 4.5 years for 16 firms filing before the revision of the U.S. bankruptcy Code in 1979, and 2.7 years for 14 firms filing afterward. Hence, we believe that Japanese has a quite effective legal system, at least not inferior to
American legal system.

Participants in a reorganization bankruptcy approve a reorganization plan, leaving room for negotiations among the various classes of claimholders and for violation of priority of claims. Priority of claims can be violated for both secured creditors and unsecured creditors. Priority of claims is violated in 17% (2/12) of the cases. In Weiss (1990), priority for secured creditors is violated in 8% (3/37) of the cases. Shareholders received nothing in all cases. By comparison, priority for unsecured creditors holds in all cases of reorganization bankruptcy.

Because generally secured creditors may exercise their rights without following the rehabilitation proceedings. The rehabilitation debtor, may, in a case where collateral properties are indispensable for continuation of business of the debtor, make an application to the court for an approval of extinguishing all the security right on the properties, by paying money equivalent to the market value of the properties to the court. We do not find any cases of extinguishing security right in practice. Priority for unsecured creditors is violated for 14% (2/13) of the cases. In sum, priority of claims holds in 84% of all cases of reorganization and rehabilitation bankruptcies.

In comparing with U.S. bankruptcy resolution, the average percentage of claims paid to unsecured creditors and shareholders are far lower in Japan. This evidence strongly suggests that the once powerful main bank system seems not so quick as the U.S. capital markets, when it comes to moving capital from declining firms. And there are no cases where unsecured creditors received common stock in Japanese bankruptcy resolution, compared with 8 case of assignment of common stocks to unsecured creditors.

Keep tracking survival likelihood of bankrupt firms, we examine that twelve firms are acquired. Equity ownership is concentrated to investment funds, corporations, and debtor’s management. And two firms are liquidated under Civil Rehabilitation Law, and one firm is liquidated under Corporate Reorganization Law. Collectively, common stock ownership becomes more concentrated with industrial firms, investment funds and
security houses. It is also quite similar to evidence on changes in ownership and control of U.S. firms that went bankrupt in the mid 1980s.

6. The duration in bankruptcy

In this dataset, we have censored observations: that is, when this study has finished some firms stay in Corporate Reorganization or Civil Rehabilitation. For more than half of bankrupt firms, neither reorganization plans nor rehabilitation plans are worked out. We use a log-logistic survival model to analyze the duration or time that firms spend in bankruptcy. That is, the period from a firm filing for reorganization or rehabilitation, until the approval of a plan by the court. Conditional on the firm characteristics $x = [x_1, \ldots, x_K]'$, the probability that the length of time spent in bankruptcy $T \geq t$ is $S(t, x) = 1/(1+exp (P (\log (t) \cdot \beta' x)))$, where $\beta = [\beta_1, \ldots, \beta_K]'$. Likelihood function is $\prod_i [Pf(P (\log (t) \cdot \beta' x_i))^\delta(i)][S(P (\log (t) \cdot \beta' x_i))^{\delta(i)}$, where $\delta(i)$ is right censoring indicator. A positive $\beta_k$ implies that $x_k$ has a positive effect on the duration in bankruptcy.

Table 5A, Table 5B reports data descriptions for firms filing for reorganization, rehabilitation respectively. Table 6A, 6B gives the log-logistic estimates for reorganization, rehabilitation respectively. We find large firms, firms of more loss carryforwards spend less time in reorganization, while small firms, high leveraged firms, firms of less loss carryforwards spend less time in rehabilitation. Next, our results suggest that secured loans/total debt ratio increases the duration in reorganization but has no effect on the duration in rehabilitation. On the other hand, the presence of bonds outstanding increases only the length of time spent in rehabilitation but not the duration in reorganization. Table 6C shows that the estimates using pooled data remain similar. Most importantly, it takes less time for a bankrupt firm to work out its resolution under Civil Rehabilitation law than under Corporate Reorganization Law.

Insert Table 6A, 6B, 6C here

7. Conclusion
In summary, main banks jettison quite a few of their troubled borrowers. And most bankrupt firms experience abnormal senior management turnover around bankruptcy filings, regardless types of filings. But bank lenders are less likely to intervene they did before. Priority of claims is less violated in bankruptcy resolution than that in the United States. Most importantly, a bankrupt firm spends less time in bankruptcy under Civil Rehabilitation Law than under Corporate Reorganization Law, after bankruptcy law reform in April 2000. This strongly suggests that Japan is successfully resurrecting its legal system, in response to increasing number of bankruptcy filings. Finally, we believe our study provides a good complement to previous studies that investigate private debt restructurings initiated by bank lenders in till the 1980s.

References
Table 1

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Corporate Reorganization filing</th>
<th>Number of Civil Rehabilitation filing</th>
<th>Number of Bankruptcy filing</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>'87-'96</td>
<td>10</td>
<td>-</td>
<td>0</td>
<td>10</td>
</tr>
<tr>
<td>'97</td>
<td>6</td>
<td>-</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>'98</td>
<td>4</td>
<td>-</td>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td>'99</td>
<td>3</td>
<td>-</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>'00</td>
<td>4</td>
<td>7</td>
<td>0</td>
<td>11</td>
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<td>'01</td>
<td>3</td>
<td>12</td>
<td>1</td>
<td>15</td>
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<tr>
<td>'02*</td>
<td>8</td>
<td>12</td>
<td>4</td>
<td>24</td>
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</tbody>
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Table 2
Intended positions/occupations reported in Nikkei of replaced presidents, who did not remain Chairmen and representative directors. Management changes tracked for four years, starting four years before the year of bankruptcy filing.

<table>
<thead>
<tr>
<th>Panel A: Corporation Reorganization filings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of managers holding specified positions/occupations</td>
</tr>
<tr>
<td>Chairman</td>
</tr>
<tr>
<td>Vice president</td>
</tr>
<tr>
<td>Advisory with directorship</td>
</tr>
<tr>
<td>Director but no other titles</td>
</tr>
<tr>
<td>Part-time director</td>
</tr>
<tr>
<td>Consultant</td>
</tr>
<tr>
<td>No information</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Panel B: Civil Rehabilitation filings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of managers holding specified positions/occupations</td>
</tr>
<tr>
<td>Director and Chairman</td>
</tr>
<tr>
<td>Advisor with directorship</td>
</tr>
<tr>
<td>Director but no other titles</td>
</tr>
<tr>
<td>Consultant</td>
</tr>
<tr>
<td>Managing director of other group firm</td>
</tr>
<tr>
<td>No information</td>
</tr>
</tbody>
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Table 3
Involvement of bank lenders

<table>
<thead>
<tr>
<th></th>
<th>Number of firms intervened by bank lenders</th>
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</thead>
<tbody>
<tr>
<td>Required principal payments on loans are reduced</td>
<td>5</td>
</tr>
<tr>
<td>Required interest payments on loans are reduced</td>
<td>5</td>
</tr>
<tr>
<td>Bank lenders dispatch managers</td>
<td>10</td>
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</tbody>
</table>
Table 4A
Summary of claims resolution for 12 public traded firms filing bankruptcy under Corporate Reorganization Law between January 1997 and August 2002

<table>
<thead>
<tr>
<th>Firm name</th>
<th>Secured creditors</th>
<th>Unsecured creditors</th>
<th>Shareholders</th>
<th>Priority violated for secured creditors only</th>
</tr>
</thead>
<tbody>
<tr>
<td>YAOHAN JAPAN</td>
<td>90%</td>
<td>3%</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>DAI-ICHI HOTEL</td>
<td>90%</td>
<td>4%</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Priority held</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KYOTARU</td>
<td>100%</td>
<td>20%</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>TOKAI KOGYO</td>
<td>100%</td>
<td>8%-2%</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>TADA</td>
<td>100%</td>
<td>13%</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>DAITO KOGYO</td>
<td>100%</td>
<td>8%</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>TOSHOKU</td>
<td>100%</td>
<td>8%</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>ASAKAWAGUMI</td>
<td>100%</td>
<td>5%-10%</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>LONGCHAMP</td>
<td>100%</td>
<td>9%</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>JDC</td>
<td>100%</td>
<td>9%-10%</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>NAGASAKIYA</td>
<td>100%</td>
<td>0.50%</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>LIFE</td>
<td>100%</td>
<td>47.72%-</td>
<td>0</td>
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</table>
Table 4B
Summary of claims resolution for 13 public traded firms filing bankruptcy under Civil Rehabilitation Law between April 2000 and August 2002

<table>
<thead>
<tr>
<th>Firm name</th>
<th>Unsecured creditors</th>
<th>Shareholders</th>
</tr>
</thead>
<tbody>
<tr>
<td>Priority held</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SOGO</td>
<td>5%</td>
<td>0</td>
</tr>
<tr>
<td>MARUTOMI GROUP</td>
<td>15%</td>
<td>0</td>
</tr>
<tr>
<td>FUJI CAR MFG.</td>
<td>8% to 10%</td>
<td>0</td>
</tr>
<tr>
<td>IKEGAI</td>
<td>Average 1.59%</td>
<td>0</td>
</tr>
<tr>
<td>FUJII</td>
<td>50%</td>
<td>0</td>
</tr>
<tr>
<td>FOOTWORK INTERNATIONAL</td>
<td>?</td>
<td>0</td>
</tr>
<tr>
<td>BETTER LIFE</td>
<td>10%</td>
<td>0</td>
</tr>
<tr>
<td>OHKURA ELECTRIC</td>
<td>1.50%</td>
<td>0</td>
</tr>
<tr>
<td>AOKI</td>
<td>2% to 100%</td>
<td>0</td>
</tr>
<tr>
<td>SHOKUSAN JUTAKU</td>
<td>?</td>
<td>0</td>
</tr>
<tr>
<td>KITANOKAZOKU</td>
<td>6%</td>
<td>0</td>
</tr>
</tbody>
</table>

Priority violated for unsecured creditors only

<table>
<thead>
<tr>
<th>Firm name</th>
<th>Percentage</th>
<th>Shareholders</th>
</tr>
</thead>
<tbody>
<tr>
<td>KAWADEN</td>
<td>22.43%</td>
<td>21%</td>
</tr>
<tr>
<td>NICHIBOSHIN</td>
<td>4.14%</td>
<td>1%</td>
</tr>
</tbody>
</table>
Table 5A  
Descriptive Statistics for 28 public traded firms filing bankruptcy under *Corporate Reorganization* Law  
(Sample period: January 1997 - August 2002)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>SDEV.</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Obs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duration</td>
<td>1.7174</td>
<td>1.1379</td>
<td>0.118</td>
<td>4.244</td>
<td>28</td>
</tr>
<tr>
<td>Log(asset)</td>
<td>11.3906</td>
<td>1.4728</td>
<td>8.7743</td>
<td>14.2077</td>
<td>28</td>
</tr>
<tr>
<td>Dummy for outstanding bonds</td>
<td>0.3929</td>
<td>0.4973</td>
<td>0</td>
<td>1</td>
<td>28</td>
</tr>
<tr>
<td>Secured loans/Total debt</td>
<td>0.436</td>
<td>0.2842</td>
<td>0</td>
<td>0.9294</td>
<td>28</td>
</tr>
<tr>
<td>Loss carried forward/Ass</td>
<td>-0.0886</td>
<td>0.1735</td>
<td>-0.7169</td>
<td>0.0216</td>
<td>28</td>
</tr>
<tr>
<td>Short-term debt/total debt</td>
<td>0.7609</td>
<td>0.1742</td>
<td>0.2857</td>
<td>0.9591</td>
<td>28</td>
</tr>
<tr>
<td>Total debt/Asset</td>
<td>0.9112</td>
<td>0.1324</td>
<td>0.5883</td>
<td>1.3095</td>
<td>28</td>
</tr>
</tbody>
</table>
Table 5B
Descriptive Statistics for 31 public traded firms filing bankruptcy
under *Civil Rehabilitation* Law
(Sample period: April 2000 - August 2002)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>SDEV.</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Obs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duration</td>
<td>0.6478</td>
<td>0.479</td>
<td>0.033</td>
<td>2.381</td>
<td>31</td>
</tr>
<tr>
<td>Log(asset)</td>
<td>10.3486</td>
<td>1.1696</td>
<td>7.2034</td>
<td>12.8907</td>
<td>31</td>
</tr>
<tr>
<td>Dummy for outstanding bonds</td>
<td>0.4516</td>
<td>0.5059</td>
<td>0</td>
<td>1</td>
<td>31</td>
</tr>
<tr>
<td>Secured loans/Total debt</td>
<td>0.3702</td>
<td>0.2427</td>
<td>0</td>
<td>0.9287</td>
<td>31</td>
</tr>
<tr>
<td>Loss carried forward/Ass</td>
<td>-0.7799</td>
<td>1.871</td>
<td>-9.098</td>
<td>0.0633</td>
<td>31</td>
</tr>
<tr>
<td>Short-term debt/total debt</td>
<td>0.7443</td>
<td>0.1875</td>
<td>0.1858</td>
<td>0.9966</td>
<td>31</td>
</tr>
<tr>
<td>Total debt/Asset</td>
<td>1.268</td>
<td>1.2419</td>
<td>0.3885</td>
<td>6.0046</td>
<td>31</td>
</tr>
</tbody>
</table>
Table 6A
Log-logistic duration model estimates for *Corporate Reorganization* filings
(Obs = 28, Sample Period = January 1997 - August 2002)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>s.e.</th>
<th>Prob</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>8.589537</td>
<td>2.3268</td>
<td>0.00022</td>
</tr>
<tr>
<td>Log(asset)</td>
<td>-0.53908</td>
<td>0.14282</td>
<td>0.00016</td>
</tr>
<tr>
<td>Secured loans/Total debt</td>
<td>-1.41836</td>
<td>0.42186</td>
<td>0.00077</td>
</tr>
<tr>
<td>Dummy for outstanding bonds</td>
<td>8.92E-02</td>
<td>0.14488</td>
<td>0.53788</td>
</tr>
<tr>
<td>Loss carryforwrad/Ass</td>
<td>2.41041</td>
<td>0.77204</td>
<td>0.0018</td>
</tr>
<tr>
<td>Short-term debt/total debt</td>
<td>-1.29951</td>
<td>0.97522</td>
<td>0.18269</td>
</tr>
<tr>
<td>Total debt/Asset</td>
<td>0.371495</td>
<td>0.74015</td>
<td>0.61572</td>
</tr>
</tbody>
</table>
Table 6B
Log-logistic duration model estimates for *Civil Rehabilitation* filings
(Observations = 31, Sample Period = April 1997 - August 2002)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>s.e.</th>
<th>Prob</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-2.64599</td>
<td>0.61274</td>
<td>0.00002</td>
</tr>
<tr>
<td>Log(asset)</td>
<td>0.165519</td>
<td>9.23E-02</td>
<td>0.07296</td>
</tr>
<tr>
<td>Secured loans/Total debt</td>
<td>0.691103</td>
<td>0.57544</td>
<td>0.22975</td>
</tr>
<tr>
<td>Dummy for outstanding bonds</td>
<td>0.357983</td>
<td>0.21352</td>
<td>0.09363</td>
</tr>
<tr>
<td>Loss carryforwrads/Ass</td>
<td>-0.84327</td>
<td>0.37551</td>
<td>0.02472</td>
</tr>
<tr>
<td>Short-term debt/total debt</td>
<td>1.153884</td>
<td>0.83157</td>
<td>0.16526</td>
</tr>
<tr>
<td>Total debt/Asset</td>
<td>-0.95918</td>
<td>0.42426</td>
<td>0.02377</td>
</tr>
</tbody>
</table>
Table 6C

Log-logistic model estimates for pooled bankruptcy duration
(Observation = 59, Sample Period = January 1997 - August 2002)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>s.e.</th>
<th>Prob</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>7.762658</td>
<td>1.9793</td>
<td>0.00009</td>
</tr>
<tr>
<td>Rehabilitation Dummy</td>
<td>-9.35459</td>
<td>2.1393</td>
<td>0.00001</td>
</tr>
<tr>
<td>Log(asset)*Reorganization dummy</td>
<td>-0.52103</td>
<td>0.1473</td>
<td>0.0004</td>
</tr>
<tr>
<td>Log(asset)*Rehabilitation dummy</td>
<td>0.168328</td>
<td>9.47E-02</td>
<td>0.07554</td>
</tr>
<tr>
<td>(Secured loans/Total debt)*Reorganization dummy</td>
<td>-1.44386</td>
<td>0.55263</td>
<td>0.00898</td>
</tr>
<tr>
<td>Dummy for outstanding bonds*Rehabilitation dummy</td>
<td>0.194865</td>
<td>0.17</td>
<td>0.25169</td>
</tr>
<tr>
<td>(Loss carryforwards/asset)*Reorganization dummy</td>
<td>2.239691</td>
<td>0.78718</td>
<td>0.00444</td>
</tr>
<tr>
<td>(Loss carryforwards/asset)*Rehabilitation dummy</td>
<td>-0.72144</td>
<td>0.26747</td>
<td>0.00699</td>
</tr>
<tr>
<td>(Total debt/asset)*Rehabilitation dummy</td>
<td>-0.84987</td>
<td>0.36304</td>
<td>0.01923</td>
</tr>
</tbody>
</table>
### Appendix

#### Summary of reorganization plan confirmed

<table>
<thead>
<tr>
<th>Company</th>
<th>Industry</th>
<th>Date of petition</th>
<th>Date of plan confirmation</th>
<th>Days in bankruptcy</th>
<th>Listed on</th>
<th>Debt</th>
<th>Priority of claims held – Firm reorganized</th>
</tr>
</thead>
<tbody>
<tr>
<td>KYOTARU</td>
<td>Manufacture and retail of food</td>
<td>01/20/97</td>
<td>07/03/99</td>
<td>894</td>
<td>Tokyo</td>
<td>1013</td>
<td>Secured creditors received 100% of their claims. Unsecured creditors received 20% of their claims. Equity holders received nothing. The firm blamed its bankruptcy on the failure of its business in America, financial investment and real estate investment.</td>
</tr>
<tr>
<td>TOKAI KOGYO</td>
<td>Construction</td>
<td>07/05/97</td>
<td>03/01/00</td>
<td>970</td>
<td>Tokyo</td>
<td>5110</td>
<td>Secured creditors received 100% of their claims. Unsecured creditors received 8%-2% of their claims. Equity holders received nothing. The firm blamed its bankruptcy on its excess real estate development financed by debt during the period of asset bubble in the late 1980s and the competitive pressure.</td>
</tr>
<tr>
<td>TADA</td>
<td>Construction</td>
<td>07/31/97</td>
<td>10/14/00</td>
<td>1171</td>
<td>Tokyo</td>
<td>1714</td>
<td>Secured creditors received 100% of their claims. Unsecured creditors received 13% of their claims. Equity holders received nothing. The firm blamed its bankruptcy on the aggravation of the construction profit and the drop of socked land for apartment development.</td>
</tr>
</tbody>
</table>
DAITO KOGYO Construction
08/20/97, reorganization petition filed in Tokyo District Court
06/30/99, reorganization plan confirmed
679 days in bankruptcy
Listed on Tokyo Exchange
Debt 1592

Priority of claims held – Firm reorganized

Secured creditors received 100% of their claims. Unsecured creditors received 8% of their claims. Equity holders received nothing.
The firm blamed its bankruptcy on the sharp reduction of public expenditures to construction.

YAOHAN JAPAN Supermarket
09/19/97, reorganization petition filed in Shizuoka District Court
03/03/00, reorganization plan confirmed
896 days in bankruptcy
Listed on Tokyo Exchange
Debt 1613

Priority of claims violated for secured creditors – Firm reorganized

Secured creditors received 90% of their claims. Unsecured creditors received 3% of their claims. Equity holders received nothing.
The firm blamed its bankruptcy on excess expansion of business abroad. After reorganization filing, the former president was arrested for fraud.

TOSHOKU Wholesale food
12/19/97, reorganization petition filed in Tokyo District Court
07/01/00, reorganization plan confirmed
925 days in bankruptcy
Listed on Tokyo Exchange
Debt 6397

Priority of claims held – Firm reorganized

Secured creditors received 100% of their claims. Unsecured creditors received 8% of their claims. Equity holders received nothing.
The firm blamed its bankruptcy on its huge loss of financial investment by its non-bank financial subsidiary. It is the third top largest bankruptcy in size of total debt from 1945 to 1997.
ASAKAWAGUMI Construction
07/24/98, reorganization petition filed in Wakayama District Court
03/10/00, reorganization plan confirmed
595 days in bankruptcy
Listed on Osaka Exchange
Debt 603

Priority of claims held – Firm reorganized

Secured creditors received 100% of their claims. Unsecured creditors received 5%-10% of their claims. Equity holders received nothing.
The firm blamed its bankruptcy on the drop of price of its stocked land for development.
Banks rejected to lend a loan for working capital.

LONGCHAMP Manufacture and wholesale cloth
09/29/98, reorganization petition filed in Kyoto District Court
06/01/00, reorganization plan confirmed
611 days in bankruptcy
Listed on Kyoto Exchange
Debt 90

Priority of claims held – Firm reorganized

Secured creditors received 100% of their claims. Unsecured creditors received 9% of their claims. Equity holders received nothing.
The firm blamed its bankruptcy on the decline in the apparel business.

JDC Construction and real estate development
12/01/98, reorganization petition filed in Tokyo District Court
09/30/00, reorganization plan confirmed
669 days in bankruptcy
Listed on Tokyo Exchange
Debt 4000

Priority of claims held – Firm reorganized

Secured creditors received 100% of their claims. Unsecured creditors received 9%-10% of their claims. Equity holders received nothing.
The firm blamed its bankruptcy on the excess investment to development of golf courses.

NAGASAKIYA Supermarket
02/14/00, reorganization petition filed in Tokyo District Court
07/01/02, reorganization plan confirmed
868 days in bankruptcy
Listed on Tokyo Exchange
Debt 3000

Priority of claims held – Firm reorganized

Secured creditors received 100% of their claims. Unsecured creditors received 0.50% of their claims. Equity holders received nothing.
The firm blamed its bankruptcy on the competitive pressure.
**LIFE Credit card business**
05/20/00, reorganization petition filed in Tokyo District Court
02/01/01, reorganization plan confirmed
257 days in bankruptcy
Listed on Tokyo Exchange
Debt 9633

Priority of claims held – Firm reorganized

- Secured creditors received 100% of their claims. Unsecured creditors received 47.72% of their claims.
- The firm blamed its bankruptcy on the failure of its real estate security business after the land price dropped deeply.

**DAI-ICHI HOTEL Chain of business hotel**
05/26/00, reorganization petition filed in Tokyo District Court
08/01/01, reorganization plan confirmed
432 days in bankruptcy
Listed on Tokyo Exchange
Debt 1152

Priority of claims violated for secured creditors – Firm reorganized

- Secured creditors received 90% of their claims. Unsecured creditors received 4% of their claims. Equity holders received nothing.
- The firm blamed its bankruptcy on its excess investment to hotel development during the period of the late 1980s’ asset bubble.

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Table 7
Summary of rehabilitation plan confirmed

**NICHIBOSHIN, non-banking finance**
04/26/00, bankruptcy petition filed in Tokyo District Court
10/05/00, rehabilitation plan rehabilitation plan confirmed
162 days in bankruptcy in bankruptcy
Listed on Tokyo Exchange
Debt 2899

Priority violated for unsecured creditors – Firm rehabilitated

- Unsecured creditors received 4.14% of their claims. Equity holders retained 1%. It is one of a fraction of cases of priority violation.
- The firm blamed its bankruptcy on excess lending to real estate industry in the late 1980s.

**SOGO Department store**
07/13/00, petition filed in Tokyo District Court
02/01/01, rehabilitation plan confirmed
Debt 18700
Listed on Tokyo, Osaka and Kyoto Exchanges
Priority of claims held – Firm rehabilitated

Unsecured creditors received 5% of their claims. Equity holders received nothing.

The firm blamed its bankruptcy on excess investment in the late 1980s and complicated mutual financing among subsidiaries, led by the owner.

FUJI Manufacture apparel
09/25/00, petition filed in Osaka District Court
(2001/03/29), rehabilitation plan confirmed
Days in bankruptcy: not available
Listed on Tokyo, Osaka Exchnaes
Debt 108

Priority of claims held – Firm rehabilitated

Unsecured creditors received 50% of their claims. Equity holders received nothing.

The firm blamed it bankruptcy on the decline of the apparel business and competitive pressure from discount shops.

KAWADEN Electric equipment
09/30/00, petition filed in Tokyo District Court
07/01/01, rehabilitation plan confirmed
274 days in bankruptcy
Listed on the 2nd section of Tokyo Exchange
Debt 253

Priority violated for unsecured creditors – Firm rehabilitated.

Unsecured creditors received 22.43% of their claims. Equity holders retained 21%.

The firm blamed its bankruptcy on its excess investment for employs' housing in the late 1980s and the decline of its business.

MARUTOMI GROUP Retail shoes
12/21/00, petition filed in Nagoya District Court
10/18/01, rehabilitation plan confirmed
301 days in bankruptcy
Listed on the second section of Nagoya Exchange
Debt 761

Priority of claims held – Firm rehabilitated.

Unsecured creditors received 15% of their claims. Equity received nothing.

The firm blamed its bankruptcy on the competitive pressure and the decline of the shoes business.

FUJI CAR MFG. Manufacture car
02/24/01, petition filed in Osaka District Court
01/23/02, rehabilitation plan confirmed
333 days in bankruptcy
Listed on Tokyo Exchange
Debt 210

Priority of claims held – Firm rehabilitated.
Unsecured creditors received 8% of their claims up to 10% of their claims. Equity holders received nothing.

The firm blamed its bankruptcy on increasing competitive pressure and the decline of car manufacturing business.

FOOTWORK INTERNATIONAL Trucking
03/06/01, petition filed in Osaka District Court
01/29/02, rehabilitation plan confirmed
329 days in bankruptcy
Listed on the second section of Osaka Exchange
Debt 237

Priority of claims held – Firm rehabilitated.

Percentage of claims paid to unsecured creditors is not available. Equity holders received nothing.

The firm blamed its bankruptcy on the increasing competitive pressure and the failure of investment abroad.

BETTER LIFE Home center store
03/13/01, petition filed in Osaka District Court
11/10/01, rehabilitation plan confirmed
242 days in bankruptcy
Listed on the second section of Osaka Exchange
Debt 231

Priority of claims held – Firm rehabilitated.

Unsecured creditors received 10% of their claims. Equity holders received nothing.

The firm blamed its bankruptcy on the share decline of the sales and excess expansion of its business to Kyushu area.

OHKURA ELECTRIC Industrial electric measure equipments
10/30/01, petition filed in Tokyo District Court
04/18/02, rehabilitation plan confirmed
170 days in bankruptcy
Listed on Tokyo Exchange
Debt 86.9

Priority of claims held – Firm rehabilitated.

Unsecured creditors received 1.50% of their claims. Equity holders received nothing.

The firm blamed its bankruptcy on the sharp decline of order from communication companies.

AOKI Construction
12/06/01, petition filed in Tokyo District Court
06/06/02, rehabilitation plan confirmed
182 days in bankruptcy
Listed on Tokyo Exchange, Osaka Exchange
Debt 3721

Priority of claims held – Firm rehabilitated.
Unsecured creditors received 2% up to 100% of their claims. Equity holders received nothing.
The firm blamed its bankruptcy on its diversified business spread from construction to hotel and golf course in the late 1980s’ asset bubble, and the sharp decline of government expenditures to public construction.

**SHOKUSAN JUTAKU SOGO Housing**
01/13/02, petition filed in Tokyo District Court
05/21/02, rehabilitation plan confirmed
128 days in bankruptcy
Listed on Tokyo Exchange
Debt 135

*Priority of claims held – Firm rehabilitated*

Percentage of claims paid to unsecured creditors is not available. Equity holders received nothing.
The firm blamed its bankruptcy on the decline of the luxury housing business.

**KITANOKAZOKU Chain restaurant**
01/18/02, petition filed in Tokyo District Court
06/27/02, rehabilitation plan confirmed
160 days in bankruptcy
Listed on JASDAQ
Debt 116

*Priority of claims held – Firm rehabilitated*

Unsecured creditors received 6% of their claims. Equity holders received nothing.
The firm blamed its bankruptcy on the competitive pressure and the loss for shutdown of unprofitable restaurants.