

RESCUING BUSINESS: REORGANIZING BANKRUPT FIRMS AS ORGANIZATIONAL PROCESSES*

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In the present paper, I examined the processes of corporate bankruptcy proceedings of the listed companies on the Korea Stock Exchange. I collected a comprehensive list of all listed companies that went bankrupt since 1990. The main findings are as follows: first, the economic crisis resulted in a number of large firms going bankrupt; second, the duration varies substantially across the firms that survived; and finally, a set of organizational characteristics such as sales, assets, firm age at the time of bankruptcy, and, most importantly, when a firm filed for bankruptcy influenced the duration of bankruptcy proceedings. These findings illustrate the impacts of key organizational factors and institutional environments on the organizational processes of post-bankruptcy proceedings toward going back to business.

Key Words: *corporate, bankruptcy, duration, composition, reorganization*

CORPORATE BANKRUPTCY PROCEEDINGS AS ORGANIZATIONAL PROCESSES

Once a firm goes bankrupt, three things are possible: (1) returning to previous conditions in terms of organization, products, and governance structure; (2) maintaining part of previous conditions with changes in the others (e.g., keeping organization with a new ownership); and (3) liquidating a firm either as a whole or as separate parts. This paper examines the sequence and speed of processes which decide the fate of bankrupt firms. After the 1997 International Monetary Fund (hereafter IMF) crisis, sudden increases in corporate bankruptcies have made insolvency part of corporate environments, and this study begins with the premise that quick, efficient and equitable administration of bankruptcy processes has become a crucial institutional setting for a healthy economy.

Organizational studies tend to focus on organizational success, while studies based on population ecology analyze organizational failures. However, these ecological studies are likely to focus on the population level

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of organizations and, more importantly, the temporal scope of such studies covers from founding to break-up of organizations. What is lacking is more micro-level analysis of the processes of organizational failures within a shorter time span. It is certainly a crucial theoretical as well as empirical decision that sets a starting time-point of organizational failure: when does a failing organization start to fail? I argue that, instead of looking at the founding and disbanding of an organization, examining bankruptcy proceedings provide an alternative way of understanding failures as continuous processes, and not as static events. The period between corporate bankruptcies and final outcomes presents an important opportunity to understand the characteristics of sociological processes of organizational failures, where key participants such as stock holders, employees, and diverse creditors with often contradictory interests negotiate decisions at every step of the bankruptcy proceedings.

Theoretically interesting aspects of bankruptcy proceedings lie in the fact that they are organizational “processes” whose various dimensions affect the interests of their participants. Temporal length and sequences of such processes are part of crucial battlegrounds for key actors: how fast are the processes going and what courses or steps are they taking? These are not just matters of theoretical debates, but issues that will decide who wins and who loses in the end. Thus, corporate bankruptcy proceedings will provide an alternative way of theorizing process-based aspects of organizational life which static organizational studies have relatively neglected.

As the first step of analyzing corporate bankruptcies, this paper seeks to examine the length and sequence of Korean bankrupt firms during the time of the economic crisis of 1997. This paper will examine how the economic crisis and subsequent legal reforms of bankruptcy proceedings affected the processes of corporate bankruptcies. Theoretically, this paper will rely on an institutionalist idea that institutional changes influence organizational processes through influencing the interests of relevant actors (Powell and DiMaggio, 1991; Fligstein, 2001; Fligstein and Stone, 2002; Oliver, 1991). In particular, I will examine how the duration of bankruptcy proceedings changes, along with changes in legal environments of corporate bankruptcy proceedings in terms of legislative revisions in bankruptcy law since the economic crisis. Each legal reform in 1998, 1999, and 2001, resulting from the pressures of the IMF, the World Bank and the government, sought to enhance the efficiency of corporate bankruptcy procedures, especially the pace of the proceedings by streamlining the procedures. I will examine the effects of each legal reform by analyzing changes in the duration of bankruptcy proceedings along with the year in which each bankruptcy case took

place. I will also study the effects of organizational environments by founding year of a bankrupt firm.

In addition to environmental factors, organizational resources can influence bankruptcy proceedings by providing different costs and benefits of a bankrupt firm as a going concern to stake holders. For this, I will examine organizational characteristics of a bankruptcy firm such as employee size, capital, sales, profits, assets, and debts when a firm went bankrupt. I will also analyze the effects of corporate governance in terms of its degree of hierarchical control. The degree of hierarchical control of a firm can affect the way creditors and other stake holders evaluate the possibility of normalizing the firm. I will examine corporate governance by the percentage of shares that a principal shareholder controls.

Finally, the choices within bankruptcy proceedings can affect overall outcomes. A key decision in the proceedings is to choose between composition and reorganization, two main courses. Since each course represents different advantages and disadvantages to different types of participants, the choice between them can affect the final outcome. Thus, I will analyze the effect of such decisions on bankruptcy duration.

In short, I will examine how organizational, environmental, and procedural factors shape bankruptcy proceedings as organizational processes in which participants with conflicting interests negotiate collective consensus.

PREVIOUS STUDIES ON CORPORATE BANKRUPTCIES

In organizational studies, organizational failure has been overshadowed by its counterpart, organizational success. From classical studies to contingency theory, transaction cost approach, resource dependence theory, and the institutional approach, the conditions to achieve organizational goals, although the definition varies among theoretical positions, have been the main story. Then, what happens to organizations that fail?

Organizational Studies and Organizational Failures

For most studies, failing organizations are significant only to highlight their differences from successful organizations and provide evidence for the importance of the winner's qualities that each perspective proposes. Population ecology is exceptional in examining an extreme version of organizational failures, its death (Hannan and Freeman, 1989). It seeks to explain organizational mortality and its collective manifestation at an organizational population level. However, such an approach to organizational failures is

tuned to a collective level at the expense of understanding the failing processes of an individual organization. Organizational failures are narrowly defined by focusing on their death, an extreme mode. It oversimplifies diverse courses and modes of organizational failure. Ecological studies provide a corpse of organizational death, and they suggest probable causes of death. What is not presented is a more immediate process of how an organization died.

Examining the processes after a firm goes bankrupt offers a way in which we can understand immediate processes of organizational failure. Organizational failure is a multi-dimensional, frequently long, and sociological process participated in by multiple actors. Every organization that goes bankrupt does not die. It faces multiple courses and multiple outcomes. By linking individual and ecological conditions of an organization with the processes and outcomes of bankruptcy proceedings, we are able to understand failing processes as organizational ones. Additionally, it is possible to examine the impacts of institutional factors such as changes in legislation, government policies, the overall number of corporate bankruptcies as a whole, and the economic and institutional pressures of globalization.

Studies on Corporate Bankruptcies

Studies on corporate bankruptcies in Korea have focused on the Korean bankruptcy legislation and their revisions. They examine either procedures of bankruptcy proceedings in each legislation, or basic statistics of bankruptcies (Oh, 1997, 2002, 2003; Ministry of Court Administration, 1996; Court Library, 2000; Nam and Oh, 2000). In addition to a legal approach, economists analyze costs in bankruptcy administration or strategies of financial institutions for corporate bankruptcies (Ku, 1998). Managerial scientists of corporate bankruptcies mainly deal with proposing a firm-level model to predict a bankruptcy (Ahn et. al., 2001; Park et. al., 2003). These previous studies, however, ignore organizational processes of corporate bankruptcies in which different courses and durations take place, which can affect a final outcome.

Similar to domestic studies, Anglo-American scholars deal with legal and economic costs of corporate bankruptcies. There are two exceptions. First, LoPucki and Whitford (1993) examine the processes of 43 bankrupt publicly held firms reporting at least \$100 million in assets at filing, in which a reorganization plan was confirmed before March, 1988. It is exceptional in that they looked at the processes after filing bankruptcy and sought to examine different outcomes. They found that a substantial number of firms ended up

filing for bankruptcy after completing reorganization. Also, a large number of companies relied on liquidation to a varying degree as well as reorganization. This suggests that the organizational processes of the American corporate bankruptcies are not separated among different courses and are experiencing a high rate of failure in terms of refiling for bankruptcy.

Another exception is Halliday and Carruthers (2003). As an extension of their previous study on bankruptcy legislation reforms in Britain and the U.S. (Carruthers and Halliday, 1998), they compare legislative processes in which Indonesia, Korea, and China enacted or revised bankruptcy laws after each society experienced a financial crisis or pressures for rationalizing financial systems to join economic globalization. In a comparative framework, they examined how globalization demanding rational administration of corporate bankruptcy shaped a new or revised bankruptcy system by influencing interactions among politicians, corporations, financial institutions, professionals (lawyers, accountants, and economists), and workers.

To sum up, previous studies on corporate bankruptcies with an exception of LoPucki and Whitford (1993) lack attention to bankruptcy proceedings as organizational processes. I argue that a careful analysis of bankruptcy proceedings in terms of courses or steps, duration of each step, and final outcome, is essential to understand the procedures and outcomes as organizational processes, and to develop more efficient, rational, and equitable bankruptcy administration. Such bankruptcy administration improves an exit system of failed firms, which is crucial for a healthy economy. The present paper is the first step in this direction by collecting and analyzing patterns in the courses and duration in bankruptcy proceedings of the listed companies in the Korean Stock Exchange that filed for bankruptcy. In the next section, I will briefly review trends in corporate bankruptcies and their characteristics in Korea during the 1990s.

CORPORATE BANKRUPTCIES AND THE LEGAL REFORMS AS INSTITUTIONAL RESPONSES FOR EFFICIENCY

The aftermath of the economic crisis of 1997 made corporate bankruptcies crucial socially as well as economically. The sudden surge of small and large firms going bankrupt sent a shockwave throughout the entire economy by way of a large number of suppliers and banks that provided loans to these companies. The employees of the bankrupt firms faced a massive scale of unemployment with insufficient provisions of unemployment insurance benefits.

Economic and social effects of the crisis have not subsided quickly. The

TABLE 1. CORPORATE BANKRUPTCIES BETWEEN 1996 AND 1999.

Period	Large Firm	Small and Medium Size Firm	Non-public Corporation	Total
1996	7	5150	6342	11589
1997	58	8160	8942	17168
November	17	697	755	1469
December	19	1540	1638	3197
1998	39	10497	12292	22828
January-March	16	4275	5158	949
April-June	8	2847	3502	6357
July-September	8	2031	2182	4221
October-December	7	1344	1450	2801
1999	7	2486	2578	5071
January-March	2	925	1005	1932
April-June	3	801	858	1662
July-September	2	760	715	1477

Note: The criterion for a large firm is one with more than 300 full-time employees (Source: Nam and Oh, 2000:17)

institutional responses to the crisis turned out to aggravate the situation. The IMF demanded increasing interest rates as a way to stabilize a monetary market, which decreased asset values of firms and worsened their financial difficulties. Consequently, the number of corporate bankruptcies increased dramatically in the first quarter of 1998. The following figure shows that both bankrupt firms and the amount of default loans slightly increased in 2003 after a brief stabilization during the second part of 2002.

Corporate bankruptcies are part of a capitalist economy and have occurred in any period of the Korean economy. However, what was unique in the late 1990s was a sudden increase in the number of bankruptcies and the fact that large firms, including the subsidiaries of the Korean conglomerates, were included. The following table shows increasing bankruptcies of the Korean conglomerates during the economic crisis.

The table indicates that between 1996 and 1997, the bankruptcy cases of large firms increased from 7 to 58. For medium size companies, the number increased from 5,150 to 8,160. Without extending the redemption period of loans by banks fearing their own crisis, more large firms would have gone bankrupt.

Bankruptcy proceedings, however, do not have a pre-determined outcome. Post-bankruptcy proceedings have multiple courses and outcomes with varying paces. The bankruptcy law states the conditions for which course and which outcome, but actual events result from a combination of

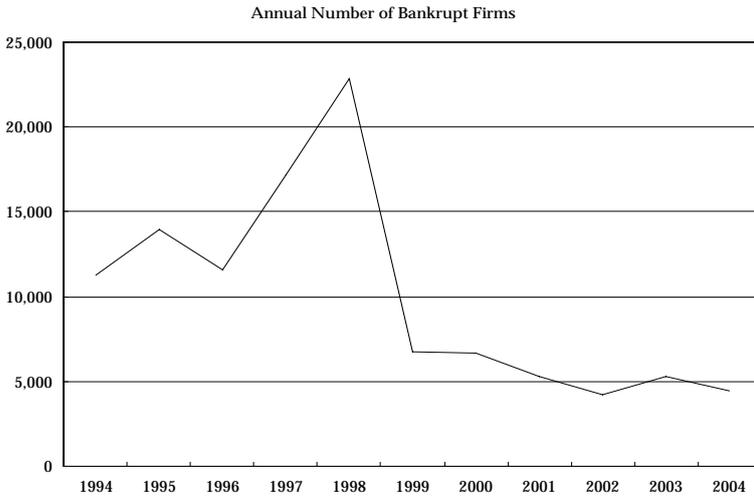


Fig. 1. Trends in Corporate Bankruptcies(Source: Korea Bank, annual statistics for corporate bankruptcies)

diverse factors including size of debts, characteristics of a firm such as its size of assets and employees, and complexity of a debt relation. To understand the processes as a whole, it is important to understand legally defined courses of the proceedings.

First, what is bankruptcy? It means that a person or an organization is not able to pay loans or debts on time due to insufficient funds.¹ However, bankruptcy does not automatically mean dissolution of a firm. The law specifies three types of outcomes for bankrupt firms: composition; reorganization; and liquidation. First, composition is a process in which creditors agree to reschedule payment of debts to avoid the dissolution of a bankrupt firm. Reorganization refers to a process in which creditors, stock owners and other interested parties make and carry out a plan to normalize a firm. Liquidation refers to a process in which creditors sell all the assets of a bankrupt firm to pay off its debts. What is important is that an application for either one of the bankruptcy courses is not automatically granted, but should be approved by a bankruptcy court. It is the most critical part of the court's decision to approve or reject each application.

The following figure illustrates procedures after filing for bankruptcy:

¹ For a general description of a corporate bankruptcy system, see Choi and Ji (1998), Nam and Oh (2000), Kang (2001), Seoul Branch Court (2002), Kong (1995), and bankruptcy-related legislations.

TABLE 2. CORPORATE BANKRUPTCIES AND TYPES OF PROCEEDINGS IN 1995-1999.

Types	1995	1996	1997	1998	1999
Reorganization	79	52	132	148	37
Composition	13	9	322	728	140
Liquidation	12	18	38	467	733
Total	104	79	492	407	910

Source: Nam and Oh, 2000: 18

the size of assets, debts, and the degree of complexity of credit relations (Choi and Ji 1998). In other words, the revisions aim to discourage bankruptcy courts from allowing a reorganization course for large companies with huge amounts of complicated credit relations, which tend to drag over-all processes and to erode entire assets on its way to dissolution.

To summarize the overall characteristics of the Korean bankruptcy law after a number of revisions is that it has been approaching the American system in which overall efficiency of bankruptcy proceedings, such as procedural duration, is emphasized over equitable distribution of assets among stake holders. Also, it has followed the American system in which corporate executives tend to receive a second chance to manage a bankrupt firm in its effort for normalization.

The following table, however, shows that reorganization cases were more than those of composition and liquidation before 1997, but the numbers were reversed after 1997.

It suggests that the managers of bankrupt firms were likely to favor composition over reorganization, and that a large number of firms that entered composition or reorganization processes ended up in liquidation. These trends are clearer in the following table.

If we divide bankruptcy cases between the 1980s and 1990s, for the 1980s, 174 cases out of 266 (65.4%) that applied for reorganization were approved. Forty-nine cases out of 105 (46.7%) that entered reorganization procedures successfully finished them, while 49 cases (46.7%) had their procedures cancelled and liquidated. In the 1990s, 433 cases out of 769 (56.3%) that applied for reorganization were approved. One hundred and forty-four cases out of 342 (42.1%) that entered the processes successfully completed them, while 129 cases (37.7%) failed and were liquidated.

The differences between the 1980s and 1990s indicate that bankruptcy courts reduced the approval rate of a reorganization application. Public scandals on the moral hazard of the managers of a few firms led to pressure

TABLE 3. STATISTICS FOR REORGANIZATION PROCESSES

year	application				processed								undecided		
	total	cases from previous year		cases from previous year	before approval				after approval				total	before approval	after approval
		before approval	after approval		total	approved	rejected	undecided	total	normalized	dissolution	undecided			
83	85	20	57	65	53	39	12	2	12	6	6	.	116	32	84
84	77	25	82	542	53	35	9	9	29	16	12	1	112	24	88
95	64	24	88	40	55	27	13	15	13	2	10	1	113	9	104
86	35	9	104	26	24	8	10	6	6	1	5	.	117	11	106
87	41	11	106	30	23	18	1	4	20	9	9	2	122	18	104
88	44	18	104	26	24	18	3	3	10	6	4	.	132	20	112
89	47	20	112	27	33	29	1	3	15	9	3	3	140	14	126
90	29	14	126	15	21	17	4	.	21	10	4	7	130	8	122
91	72	8	122	64	46	26	10	10	20	8	3	9	154	26	128
92	115	26	128	89	89	44	35	10	17	10	3	4	181	26	155
93	71	26	155	45	44	25	19	.	33	11	22	.	174	27	147
94	95	27	147	68	68	48	18	2	14	5	8	1	208	27	181
95	106	27	151	79	76	32	29	15	28	5	23	.	185	30	155
96	82	30	155	52	55	29	17	9	30	12	16	2	181	27	154
97	159	27	154	132	87	43	24	20	32	11	13	8	237	72	165
98	220	72	165	148	123	92	25	17	88	38	23	27	255	86	169
99	123	86	169	37	104	77	13	14	59	34	14	11	206	19	187
total				995	989	607	243	139	447	193	178	76			

(Source: Ministry of Court Administration, various years)

on the courts to increase the criteria for granting reorganization. However, at the same time, the failure rate of reorganization processes in the 1990s was still close to 40%, suggesting that procedural efficiency did not improve substantially.

In the above table, in terms of procedural efficiency, the number of unsettled cases is as serious as a failure rate. The number of unsettled cases continued to increase: there were 84 cases in 1983 and 187 in 1999. Unsettled cases indicate that the proceedings took longer, and a longer duration often results in loss of assets and of a declining chance for a firm's survival. The following table shows the duration of each step of reorganization procedures for bankrupt firms from 1991 to 1994.

Considering that the period is prior to the economic crisis, the procedures are relatively long. In particular, it took ten months on average from an application to a court's approval. It took 9 years on average from the start of reorganization to completion, compared to 6 years from the start to cancella-

TABLE 4. TIME FOR EACH STEP IN REORGANIZATION PROCESSES

Step	No. of Firm	average duration	minimum duration	maximum duration
from application to asset freeze	19	46.7days	1week	9months
from application to approval	22	10.1months	4months	4years
from application to rejection	16	6.1months	1month	30months
from approval to completion (normalization)	6	9.1years	3years	11.8years
from approval to cancellation	9	5.6years	1month	14years

(Source: Kong, 1995:87-89.)

tion. Bankruptcy experts repeatedly point out that the duration of the proceedings alone affects the amount of remaining financial values of bankrupt firms: the values often are eroded rapidly along with a possibility of getting back to business as usual.

Why does it often take so long? The decisions during the proceedings are essentially collective and social in that all those who were involved; short and long term creditors, shareholders, managers, employees and others, have to form a majority consensus, if not a perfect consensus. It can be easily imagined that each type of actor has different ideas of rational decisions and outcomes, which are likely to produce a zero-sum game situation among them. It is the responsibility of the judges to bring out a consensus as rationally, equitably, and quickly as possible, but the business side of bankruptcy firms is notoriously complex for judges who lack experience and knowledge of such matters.

The special report on corporate bankruptcies from the National Assembly also stated that the length of the bankruptcy proceedings is as serious as the number of corporate bankruptcies and their default loans. The report showed that the reckless management of owners and the problems of supervising organizations led to long processes and subsequent decreases in corporate assets. It indicates that bankruptcy proceedings are not homogeneous processes that are pre-determined by legal criteria. Actual outcomes vary with the characteristics of bankrupt firms, their debts, and their creditor relationships, given that bankruptcies are a "normal" part of a capitalist economy. It also suggests that rational administration of bankruptcy proceedings is as crucial as preventing corporate bankruptcies. In short, the duration of corporate bankruptcy proceedings are crucial in understanding the outcomes of bankruptcy as organizational processes with participants pursuing conflicting interests.

DATA

This paper examines processes after corporations listed on the Korean Stock Exchange filed for bankruptcy from 1990 to 2004. I collected the data of all bankrupt listed companies from 1990 to 2002 to examine changes in bankruptcy processes before and after the economic crisis of 1997. However, as it will be shown later, bankruptcies of the listed companies were rare before the economic crisis.

The main data source is the Korea Information Service (hereafter, KIS), which provides a comprehensive database of all listed companies and their annual financial data and crucial events such as bankruptcies. I started with the list of bankrupt firms from this database. To see if there were additional corporate bankruptcies in addition to those identified by the KIS, I also examined the list of bankrupt companies from the data of the Korean Stock Exchange and business daily newspapers for the entire period.

The search resulted in 155 corporate bankruptcy cases between 1990 and 2002. Once I identified bankrupt listed companies, I relied on several sources to find relevant data for these companies. Since the main focus of this paper is the duration of each step of bankruptcy proceedings, it was crucial to identify not only the timing of bankruptcy, but the timing of each event or step in the ensuing bankruptcy proceedings. It is well known that such data are hard to collect since no databases are collected by organizations such as commercial information service providers to governmental organizations such as courts or the Ministry of Justice. Newspapers often carry articles on bankruptcies of *Chaebol* subsidiaries, but they are selective in terms of the cases. More importantly, they do not provide systematic information on the timing of key events of bankruptcy proceedings. It is possible to check the court records of individual bankruptcy cases, but this requires approval of the judge who presided over the case.

An alternative source of data is the corporation registry collected by the Supreme Court. All publicly held corporations, by law, have to provide basic information including bankruptcy to the corporation registry. Once a corporation files for bankruptcy, the law requires that the subsequent courses of events and their exact timing are recorded in the registry. Since I acquired a comprehensive list of all listed companies that filed for bankruptcy for the period, I collected the registries of all the companies. Consequently, I was able to identify exact timing of key events after bankruptcy for all listed companies since 1990. To verify the accuracy of timing data, I cross-checked the data with the data of the Financial Supervisory

Service (*Keumyungkamdogwon*), the Korea Stock Exchange, the annually updated databases from commercial databases such as the Annual Report of the Listed Companies, and business daily newspapers.

Additional data for the identified companies came from various sources: first, the Korea Information Service database which presents all financial data for the period of the previous 3 years before bankruptcy, bankruptcy year, and 1 year after bankruptcy; second, for verifying data accuracy and additional data, I examined all the annual reports from the Financial Supervisory Service to which all publicly held companies provide comprehensive data on a regular basis; and finally, business daily newspapers and their annual reports of the listed companies. In short, the present paper covers all the 155 listed companies filing for bankruptcy since 1990, what processes they went through, and for how long.

In the following, I will present basic analyses of the 155 firms. Next, out of 155, I selected 71 companies that successfully completed either composition or reorganization. Why such a selection? Since I am interested in how long it took for a company to successfully complete bankruptcy proceedings, I chose all the companies that survived through either composition or reorganization processes. Also, in this paper, I focused on 71 companies that had already completed entire courses to avoid a right-censoring problem, which refers to an arbitrary halt of data due to a span of data collection. All the other companies either dropped out of composition or reorganization processes into dissolution, or went to dissolution straight out of bankruptcy.²

ARGUMENT: THE DURATION OF THE PROCEEDINGS FOR SURVIVORS

How long did it take for bankrupt firms to complete either composition or reorganization? The following figure shows that it varies with each case.

I will examine the impacts of three factors: first, organizational characteristics of a bankrupt firm; second, the course of bankruptcy proceedings (composition or reorganization); and finally, organizational and institutional

² Selecting companies that survived may result in a selection bias by excluding those firms that are still in the process. As an anonymous reviewer points out, it is possible that, had recently bankrupt firms been included in the final data, the periodic variations in bankruptcy duration might have been different. On the other hand, the pattern of decreasing duration over the years, I argue, is so clear that the right-censored cases would have shown shorter duration than the duration of bankrupt firms in previous periods. However, selecting survived firms is clearly a limitation of this paper. I will address a right censoring issue by applying an event history analysis in another paper.

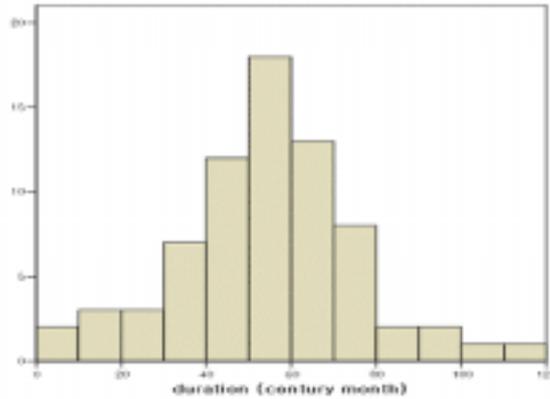


Fig. 3. Duration from Bankruptcy to Normalization

environments.

Organizational Characteristics

The assumption for these factors is that organizational characteristics of a bankrupt firm, such as its resources, governance structure, market performance, debts, and industry type would influence the way the participants in the bankruptcy proceedings such as judges, lawyers, creditors, and managers decide their positions and thus the outcome and duration of the proceedings.³

For resources, I examine employee size, capital, asset, and firm age at the time of bankruptcy. I argue that organizational resources would provide an incentive for the participants to survive a firm, and I hypothesize that the larger the resources a firm has, the shorter is the duration to complete the processes. Following previous studies, I argue the older a firm is, then the more resources, organizational or institutional, it has. Thus, I hypothesize that the older a firm is, the shorter the duration is.

A large size of a firm's debts would make it harder to pay off. The size of debts would also correspond to the degree of complexity of a firm's debt structure with a large number of creditors. Thus I argue that the more debts a firm has, the less incentives its creditors have to survive it, and the harder it is for them to reach a consensus. Thus, I hypothesize that the size of debts

³ I examined the effects of these same variables at different points of time (e.g., 3, 2, and 1 year before bankruptcy respectively). The results did not show statistically significant results, suggesting that the participants of the proceedings consider the characteristics of a bankrupt firm at its immediacy, not its past, as a useful reference.

would increase the duration of the proceedings.

For governance structure, I examine principal shareholder percentage as a proxy measure. Principal shareholder percentage can tell us how centralized a firm's ownership is. I argue that centralized control of a firm would facilitate negotiations between the owners and their creditors. Thus, I hypothesize that the more centralized a firm's control is, the more easily a consensus would come about.

For market performance, I examine total sales and profits. I argue that better performance, like organizational resources, provides stronger incentives for creditors to make a firm a going concern. Thus I hypothesize that the better its performance is, the shorter the duration is.

I examine the effects of industry type (manufacturing as a reference) as a control variable.

The Choice over Courses: Composition versus Reorganization

Although composition and reorganization are both channels of the same proceedings, they are alternatives to each other, and participants in bankruptcy proceedings would view them as different options. A critical difference is that managers stay and control their firm in composition, while legal custodians appointed by the court take over in reorganization. In particular, legislative reforms have pushed judges to assign large companies with more complex debt structure to reorganization. Thus, I hypothesize that firms entering reorganization processes would spend more time in the proceedings than those entering composition.

Organizational and Institutional Environments

Organizational and institutional environments shape organizations by providing key resources and constraints, organizational boundaries, and cultural blueprints as organizational models. Among these various channels of environmental influence, I will focus on key insights of both the population ecology approach (Hannan and Freeman, 1989) and the institutional approach (Powell and DiMaggio, 1991). Population ecology argues that organizational environments shape organizational mortality by availability of key resources. The institutional approach contends that organizational actors rely on various institutional elements to justify their claims socially and culturally; and that institutional frameworks, especially legal ones, actively shape possible courses of action for participants in organizational processes, through formal incentives and sanctions.

In this paper, I examine how both resource and institutional environments

shape individual organizations not throughout their entire life cycles, but through organizational processes of bankruptcy proceedings where bankrupt firms seek to get a second chance. There are different ways to measure environments of a bankrupt firm. In the present paper, I examine the period in which a firm was founded as a proxy measure of its organizational environment. A firm's founding year can capture the aspect of resource environments which change temporally. The resource environments when a firm was created would shape the organizational structure of a firm, and it would influence a firm at a later stage of its development (Stinchcombe, 1964).

Bankruptcy year as a proxy measure for a firm's institutional environment is the key variable. I argue that bankruptcy year provides information on its institutional environment. First, the number of corporate bankruptcies varies across years. The listed companies rarely went bankrupt before 1997, and the number of bankruptcies of large companies surged drastically during the crisis. What has clearly changed after the crisis is a general recognition that large companies can go bankrupt even in normal economic conditions. Thus, after the crisis, there have been increasingly more domestic and foreign socio-economic and political pressures to improve efficiency of bankruptcy proceedings and speed up the pace.

Another dimension of bankruptcy year indicates the effects of legislative revisions. As I stated earlier, there were a number of substantial revisions throughout the late 1990s and early 2000s. They all aimed to reduce the duration of the proceedings. Thus, the timing of bankruptcy year decided which version of bankruptcy legislation would guide the proceedings. I argue that legislative revisions in bankruptcy law facilitated "coercive isomorphism" in bankruptcy procedures (DiMaggio and Powell, 1983). Such revisions enforced new guidelines, which influenced strategies of participants in bankruptcy proceedings for better overall efficiency of the bankruptcy system. I hypothesize that the later a firm filed for bankruptcy, the shorter the duration is: either from more institutional pressures or from legal changes to speed up the bankruptcy proceedings.

ANALYSIS

Given the impact of the crisis on corporate bankruptcy, it is interesting to see the annual frequency of the present dataset. The following figure shows that the listed companies show a trend that is similar to other types of companies in the same period.

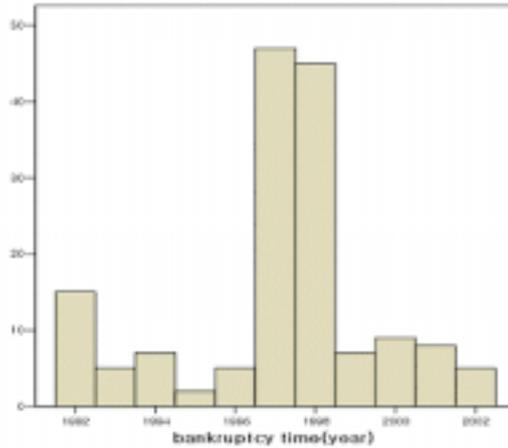


Fig. 4. Annual Number of Bankruptcies of Listed Companies

TABLE 5. BASIC CHARACTERISTICS OF ALL BANKRUPT FIRMS WHEN BANKRUPT (n=155)

	firm age (year)	employee size	principal shareholder percentage	capital (unit: million won)	sales (unit: million won)	profits (unit: million won)	debts (unit: million won)
Mean	27.1	356.9	15.8	29118.4	172281.8	-61818.2	336493.3
Median	27.0	294.0	12.3	16579.9	72741.5	-20019.1	113475.5
Standard Deviation	10.8	239.0	10.6	35616.9	351499.3	169304.8	736360.9
Minimum	5.0	6.0	1.4	964.0	4132.2	-1709593.0	5785.9

The figure shows that there was a slight decrease after 1992, a clear jump in 1997 and 1998, and a quick decline after 1999. This trend suggests that bankruptcy courts experienced an enormous burden after the crisis. Considering that the courts had to deal with large companies since 1997, the timing of bankruptcy of a company would influence its duration of bankruptcy proceedings.

It has been argued that industries differ in their risk of bankruptcy. The present data confirms a common assumption: manufacturing companies are the largest due to their large share in the economy and the acute impact of the crisis; construction and sales are the next industries that are prone to experience a shock in economic downturns.

What are the characteristics of the bankrupt companies? The following table presents the aspects of the firms.

TABLE 6. HOW FAST ALL FIRMS WORSENERD - PERIOD UP TO BANKRUPTCY (change rate, n=155)

	employee	asset	capital	sales	profits	debts	principal share holder percentage
Mean	-30.1	19.5	41.7	7.0	-1685.2	77.4	-14.0
Median	-33.7	-3.9	31.3	-5.6	-912.2	47.1	-17.1
Standard Deviation	35.0	83.7	65.2	100.2	15949.2	122.7	47.2
Minimum	-93.2	-79.6	-93.5	-85.7	-77474.9	-72.6	-95.1

TABLE 7. BASIC CHARACTERISTICS OF BANKRUPT FIRMS THAT SURVIVED (n=71)

	firm age (year)	employee size	principal shareholder percentage	capital (unit: million won)	sales (unit: million won)	profits (unit: million won)	debts (unit: million won)
Mean	28.0	384.2	15.1	26721.9	129435.1	-51823.6	243509.3
Median	28.0	315.0	12.3	14739.3	85126.4	-28078.7	150458.3
Standard Deviation	8.4	240.4	9.0	33528.4	139185.0	116397.3	291162.4
Minimum	5.0	17.0	2.0	1843.8	8100.5	-472063.4	18283.1

Since these are the listed companies, their age and overall size in multiple dimensions tend to be larger than the average Korean companies. The fact that the Chaebol subsidiaries did go bankrupt after 1997 is likely to increase the firm size. What is notable in the table is “principal shareholder percentage.” It shows the percentage of shares of a top shareholder in total shares. Here the median and mean percentages are a little more than 10%, whereas the maximum is 70%. It shows that the present dataset includes companies with different types of corporate governance, reflecting varying sizes in other dimensions.

The following table focuses on the pace at which the companies worsened after the crisis in multiple dimensions.

For example, in the case of employee change rate, it measures this pace by the following method: $\text{employee change rate} = ((\text{employee size when bankrupt} - \text{employee size 3 years before bankruptcy}) / \text{employee size 3 years before bankruptcy}) * 100$

In other words, the larger a negative number is for this rate, the faster or the more a company worsened during a time span of 3 years before bankruptcy. The largest degree of decline lies in profits, employee size, and principal shareholder percentage in a decreasing order. It suggests a combination of two possible scenarios: a failing process hits such aspects of a firm as

TABLE 8. HOW FAST THE FIRMS THAT SURVIVED WORSENE - UP TO BANKRUPTCY (n=71)

	employee	asset	capital	sales	profits	debts	principal share holder percentage
Mean	-24.1	20.9	48.5	14.9	-643.0	78.2	-9.1
Median	-25.0	-5.8	45.9	-7.5	-1134.7	35.7	-19.4
Standard Deviation	36.7	92.6	72.7	126.0	20430.1	145.0	52.2
Minimum	-88.4	-74.0	-93.3	-72.5	-77474.9	-72.6	-85.5

profits first; or, the managers of a failing firm react to crisis by reducing employee size and principal shareholder percentage. Why would they reduce principal shareholder percentage? It can be argued that they sought to reduce their future loss by reducing their shares.

How would all the bankrupt firms be compared with those that successfully completed the processes and went back to business? The following two tables present the same summaries for the 71 survivors.

The two tables suggest that the surviving companies are not clearly different from other bankrupt companies that eventually failed in terms of basic financial characteristics at the time of filing for bankruptcy.⁴

It was shown above that a substantial variation exists for the duration of bankruptcy proceedings. Why did a firm complete the proceedings relatively quickly, for example, within a year, while others spent a couple of years? The following is the result of an OLS analysis based on the arguments I presented above.

Model 1 examines the effects of organizational characteristics of a bankrupt firm. Among financial characteristics of a firm, it is total sales when a firm went bankrupt that decreases the duration with a statistical significance. As suggested above, it can be argued that total sales signify market performance of a firm. Thus, the more sales a firm produced, the stronger incentives stake holders in the proceedings would have to normalize a firm quickly.

Although they did not produce statistically significant results, resource variables such as employee, asset, and debt sizes all tend to increase the duration of the proceedings. From the direction of the relationships, it can be further argued that such size dimensions refer to the degree of complexity and difficulties to streamline a firm. It is interesting that principal shareholder percentage, a measure of centralized governance, seems to increase

⁴ Although it was not reported here, an additional analysis comparing two groups, survivors and losers, did not produce statistically significant differences in terms of the dimensions mentioned here.

TABLE 9. REGRESSION ANALYSIS OF FACTORS ON DURATION OF THE PROCEEDINGS.

variables	model1		model2		model3		model4	
	β	<i>t</i>	β	<i>t</i>	β	<i>t</i>	β	<i>t</i>
employee	.269	1.510					.108	.844
capital	-.084	-.466					-.045	-.356
sale	-.855**	-2.545					-.652**	-2.757
profit	-.192	-1.026					-.063	-.479
asset	.877	1.656					.695*	1.870
debt	.196	1.460					-.056	-.213
principal share	.151	1.224					.062	.695
firm age when bankrupt	.196	1.460					.636**	2.069
construction	-.063	-.387					-.054	-.476
sales industry	-.242	-1.753					-.165	-1.710
transport or info service	-.028	-.219					-.058	-.645
reorganization			.115	.968			.019	.209
founding period (decades)					-.142	-1.668	.444	1.468
bankruptcy year					-.677***	-7.927	-.744***	-7.139
R ²	.268		.013		.510		.668	
(adjusted R ²)	(.116)		(.001)		(.496)		(.575)	
N	64		71		71		64	

Note: Total cases vary across models due to missing values of a few variables. I linearly interpolated missing values with the values of the same variable in previous and next time points.

the duration of the proceedings. Further study is necessary to see if centralized control provides leverage to owners and managers in negotiations with creditors, which makes it harder to change a firm.

Firm age at the time of bankruptcy shows a positive relationship with the duration, although it is not statistically significant. The industry type also does not produce statistically significant results, but the bankrupt firms from the sales industry seem to recover quickly, as compared with those from the manufacturing industry.

Model 2 examines if the course of the proceedings, either composition or reorganization, affects the duration. The practitioners in the field (Choi and Ji 1998) suggest that composition takes longer than reorganization because the managers maintain their control and resist changes demanded by creditors. It is true that the firms in reorganization are run by a legal custodian appointed by the court. However, such firms are likely to be relatively large in terms of their assets and debts, with a more complicated debt structure. Thus, it needs additional study to understand the overall influence of corporate governance on the processes.

Model 3 deals with the effects of a firm's resource and institutional environments. The results indicate that both founding period and bankruptcy year have a negative relationship with the duration: the later a firm was found and the later it experienced bankruptcy, the more likely it is to complete the proceedings quickly. Although it is not statistically significant, the direction of the relationship suggests that more recently established firms were able to normalize more quickly. I ran a T-test comparing those firms found prior to 1970 and those after 1970 in terms of organizational characteristics. In all dimensions such as capital, asset, debt, and employee, pre-1970 firms, the first or second generation *Chaebol* subsidiaries, were larger than their post-1970 counterparts. I argue that the size of the pre-1970 firms and the effects of pre-1970s economic environments on firm organizations tend to make the proceedings more complicated, which leads to a longer duration.

The timing of a bankruptcy shows a strong negative effect on the duration. Why does the timing present such a strong effect? The most obvious answer is that the continuous revisions of bankruptcy legislation did manage to cut down the length of the proceedings for a firm to survive. There was strong evidence that the longer a firm remained in the proceedings, the more likely it would deplete all its resources, thus nullifying its chance of survival. Therefore, it was one of the most important goals of the 1998, 1999, and 2001 revisions to quicken the pace. The present analysis suggests that the firms in a later period benefited from the revisions. It can be also argued that the participants (e.g., judges, lawyers, custodians, creditors, and managers) in the bankruptcy cases in subsequent periods learned from their predecessors to improve the processes. From either changes in legislation or learning, it is clear that the late-comers graduated earlier from the processes.⁵ Model 4 puts together all the factors mentioned above. First, the direction of the relationship of the variables that turn out to be statistically significant in Model 4 do not change from previous models.⁶ In other

⁵ An anonymous reviewer suggested that the effect of bankruptcy year can be interpreted as either the effect of the number of corporate bankruptcies in each year or as that of legislative reforms. In the former, the number of corporate bankruptcies suggests the effect of the pressures on bankruptcy courts or of the social pressure to enhance bankruptcy procedures. I collected the number of corporate bankruptcies for each year, but a regression analysis with this variable does not produce statistically significant results. It is the latter, the effect of legislative reforms, that I addressed in this paper. To highlight such factor or periodic effects, I ran a regression analysis with each year as period dummy variables, with 1998 as a reference year. The result showed that bankruptcy duration decreased gradually, thus suggesting that legal changes did decrease bankruptcy duration.

⁶ In fact, only two variables, debt and founding period, do change the direction of their rela-

words, the effect of each variable is consistent regardless of other variables. The statistically significant factors such as total sales and the timing of bankruptcy in previous models still show significant effects. In fact, the effect of the timing of bankruptcy increases in the final model. It turns out to be the most crucial factor in explaining the duration. It suggests that the legal and, more broadly, institutional environment of firms are crucial in explaining the organizational processes of corporate bankruptcies, after controlling organizational level characteristics.

Finally, Model 4 shows that the older a firm was at the time of bankruptcy, the longer it took to complete the processes. It has been argued that a firm's age indicates organizational legitimacy in institutional environments. In the present case, however, the older a firm was at the time of bankruptcy, the longer it took to survive. It can be argued that a positive effect of a firm's age is relatively weak in case of bankrupt firms whose legitimacy was already damaged by bankruptcy itself. On the other hand, a firm's age may correspond with a more rigid organizational structure or a more complicated debt structure. These arguments require further analysis.

DISCUSSION

In the present paper, I examined the processes of corporate bankruptcy proceedings of the listed companies on the Korea Stock Exchange. I collected a comprehensive list of the listed companies that went bankrupt since 1990. Additionally, I collected data on the courses and duration of their bankruptcy proceedings along with their organizational and environmental characteristics.

The key research goals of the present paper consist of two things: first, to compile a comprehensive set of corporate bankruptcy proceedings; and second, to understand bankruptcy proceedings as organizational processes, and not those pre-determined by technical criteria. Despite the growing presence of corporate bankruptcies, including the Korean conglomerates at this age of global competition, previous studies on corporate bankruptcies neglected the processes after a firm filed for bankruptcy.

The present study is a first step in viewing the processes after bankruptcy as essentially organizational processes with a collective action problem: the participants with conflicting interests (e.g., owners, employees, and creditors) need to mobilize a coalition to prevent overall erosion of assets. Each

tionship with the dependent variables in Model 4 compared with previous models. However, they are not statistically significant in Model 4.

participant negotiates with others within a legal framework set by bankruptcy legislation. As a first attempt at organizational analysis of bankruptcy proceedings, I focused on the duration of the processes as the dependent variable. I chose the duration since the field experts emphasized that it is the key factor that can decide the overall outcome of the processes: a business maintains its value only as a going concern, and to decrease its stay in bankruptcy is crucial for increasing its chance of survival. Repeated revisions of bankruptcy laws and their impact present a valuable opportunity by which we can investigate how changes in institutional settings shape strategic actions of organizational actors, and consequently change organizational processes and their outcomes.

The main findings of the present paper are as follows. First, the economic crisis did increase the number of corporate bankruptcies, including a series of large companies for the first time. Second, it is a crucial and strategic decision for the participants to choose between composition and reorganization, and the key aim of the legislative changes was to specify conditions for each course. Third, the duration varies substantially across the firms that survived. Finally, the more sales a firm produced at the time of bankruptcy, and the later it filed for bankruptcy, the more quickly it survived back to a normal business. On the other hand, the more assets it had, and the older it was at the time of bankruptcy, the longer it took to complete the proceedings. I argued that bankruptcy year indicates the effect of legislative environments and potentially learning effects for the participants. Total sales indicate, I argue, the attractiveness of a firm as a going concern, thus facilitating a quick consensus among those at stake. Firm assets and firm age need additional data, but I asserted that assets and firm age may correspond with more complicated debt structures, thus making a consensus harder and protracting the processes.

There are a couple of directions in the future study of corporate bankruptcies. First, I will examine the rate of success and failure of corporate bankruptcy cases with an event history analysis. Second, I will investigate the factors that decide the selection of courses among composition, reorganization, and liquidation using a multinomial analysis. Finally, for such projects, I will collect the data on creditors in terms of their number, distribution, and their organizational type, which will illuminate the complexity of debt structures. These data will provide more insight into organizational processes of bankruptcy proceedings.

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