AN ECONOMIC ANALYSIS OF BANKRUPTCY LAW WITH PARTICULAR REFERENCE TO THAILAND

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Abstract

The thesis presents a theoretical and empirical analysis of the Thai Bankruptcy Law, which was substantially amended in 1998. The amendment introduced a legal procedure called 'reorganisation.' The underlying economic rationale of bankruptcy law is extensively examined. Bankruptcy is needed when a solution to insolvency cannot be reached among creditors because of prohibitive transaction costs arising from divergent expectations on and insufficient information about the debtor. Transaction costs are directly proportional to the number of creditors. The real purpose of bankruptcy procedure is to align such divergences, then select the best deployment of the debtor's assets to maximise their value, and redistribute the proceedings from the selected realisation to all creditors. Efficient bankruptcy law would achieve all these tasks and not affect the behaviour of creditors at the time of lending. The design of optimal bankruptcy legislation requires the thorough understanding of economic reality where the law will be enforced. There is no single bankruptcy law that can be optimal for every economy. The law must be tailor-made to achieve the desirable balance between *ex ante* and *ex post* efficiency.

The structure of the Thai bankruptcy law is analysed along with a review of Thai economic and legal development. Due to the unique characteristics of connections, insolvency is mainly solved by non-bankruptcy approaches. Since the Thai Bankruptcy Act borrows its framework from other legislations, the fundamentals of the Thai economy, especially lending-borrowing relationship, have been overlooked. Subsequently, deficiencies prevail. The Act inherently inclines toward reorganisation, provides wrong incentives for creditors, releases the debtor to its *status quo* without initiating liquidation, and imposes no threat of managerial displacement. It also grants discretionary power for the court to exercise judgement inappropriately. Hence, there is a room for efficiency improvement. It is argued that creditors can play a greater role in bankruptcy, particularly financial institution creditors because of their higher ability to absorb bankruptcy risk than other types of creditors and close connections between themselves can reduce transaction costs considerably. The thesis proposes an additional procedure, using the exchange of debt or compulsory debt offsetting to be implemented when there is an impasse in the process.

Using a binary response model with panel data and the multinomial logit model, the empirical analysis confirms that the conjectured drawbacks in the procedure are apparent. Results also reveal financial institutions are relatively more effective in dealing with insolvency than other creditors. Thus, there is a strong argument to amend the Law to utilise these advantages for the benefit of all other creditors. The evidence reveals that the Thai Bankruptcy Act discourages non-bankruptcy workouts and allows the debtor and/or some creditors to exploit the legal protection for private benefits. It is also confirmed that the number of creditors is directly proportional to the level of transaction costs and make settlement less attainable.

In Memory of

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Table of Contents

List of Tables

List of Figures

List of Variables

B	Amount of Borrowing (Debt)
B_{it}	Amount of Borrowing of Creditor i at time t
i	Rate of Interest
r_f	Risk-free Rate of Interest
L_t	Liquidated Company Value (market value) of Asset at time t
V_t	Real Company Value of Asset at time t
e	Level of Debtor's Managerial Effort
ΔV	Value Added from Effort
μ	Level of Creditor's Monitoring Effort
$c(e)$	Cost of Debtor's Managerial Effort
$c(\mu)$	Cost of Creditor's Monitoring Effort
$\check{R}_c$	Realisation Value (Repayment) of Creditor
$\check{R}_d$	Realisation Value (Residual) of Debtor
k_i	Discount Rate of Person i
βi	Proportion of Debt owed to Creditor i
p, q	Probability of a certain event
R	Company Value from Reorganistion
L	Company Value from Liquidation
C	Company Value from Continuation (Private Workout)
T	Transaction Cost
U_t	Value of Unsecured Debt at time t
S	Value of Secured Debt
P_t	Company Earnings at time t
g	Normally Distributed Random Variable with zero mean
c_i	An Individual Creditor i
l_i	Repayment from Liquidation for an individual creditor i
r_i	Repayment from Reorganisation for an individual creditor i

Note: Throughout this thesis, a creditor is feminine and a debtor is masculine.

Chapter 1
Introduction

1.1. Prologue

The economic crisis of 1997 hit Thailand much harder than others in the past. The crisis resulted in many changes in economic policy including substantial amendments in economic related legislation. Among the total of 11 Acts being revised, the bankruptcy legislation, Bankruptcy Act B.E. 2483, was amended to embrace a clause for reorganisation in 1998. The inclusion of reorganisation is regarded as the major change in Thai economic law. Its implementation brought considerable concern regarding its procedure and outcome. There was high hope that the economic problems would be brought to an end by the introduction of new legislation.

Bankruptcy or insolvency has not been common in Thailand. The evidence shows that the Act has been rarely amended, despite rapid economic expansion in Thailand, especially in the last two decades. Although insolvency is an interesting economic problem, discussion of it has been concerned with the legal academic point of view. Consequently, attention to bankruptcy law has focused on legal technicalities rather than on the underlying economics.

The role of bankruptcy law became more prominent as the public perceived that it could play a key role in solving the economic crisis. At the same time, the public become aware that the legislation may have a loophole allowing foreign creditors to dominate Thai-owned companies. There was continuous protest asking for a further amendment to protect these companies from foreign creditors. The progress of the new bankruptcy procedure did not go as smoothly as was expected. This caused a widespread emotional reaction from the public about bankruptcy.

In a short time, the bankruptcy legislation with reorganisation was perceived, from a nationalist perspective, as a danger to the economy. The implication of foreigners being exclusively on the creditors' side is that the law does not grant sufficient protection to debtors. Hence, more protection for the debtor is needed.[1] Confusion gathers its own momentum; the issue of bankruptcy is in disarray.

[1] In fact, there are a few companies in the reorganisation process that have considerable foreign shareholders and foreigners in the management.

Negative responses to bankruptcy law extend into the area of personal bankruptcy. It is normal practice for the owner of a debtor company to use his personal wealth as a security to obtain loans for their companies. Insolvency of the company, therefore, implies insolvency of its owner. Once they are declared bankrupt, they cannot live their lives like ordinary persons. From this stems the argument that the law is unfair by letting people, who could be more constructive in the economy to suffer from being bankrupt for too long. The recent change in personal bankruptcy law allows the automatic discharge from bankruptcy within 3 years.

Consequently, the pressure on bankruptcy law is now to make the law more favourable to the debtor. Superficially, it seems a good idea and perfectly justifiable to help those who suffer from insolvency. It is not as simple as that. Insolvency is a complex matter, particularly from an economics' perspective. A full understanding of bankruptcy would shed the light onto this ambiguity.

It is worth considering some statistics about bankruptcy cases. There are almost 600,000 registered companies in Thailand (Department of Commercial Registration, Ministry of Commerce – as of 1999: 592,000 companies). At the same time, by the end of 1999, there were 36 petitions for reorganisation. The amount of debt in these cases worth 1,066.48 billion *baht* (Business Rehabilitation Office, Department of Legal Execution, Ministry of Justice) which was staggeringly accounted for 22.99 per cent of GDP at the very same year (GDP at current price in 1999 was 4,637.1 billion *baht* (Bank of Thailand)). Meanwhile, there is a non-bankruptcy attempt to solve financial distress in the form of Corporate Debt Restructuring Advisory Committee (CDRAC) under Bank of Thailand – this is not a proper bankruptcy since it involves only financial institution creditors and no legal enforcement can be made. CDRAC, at the same time, reported that 173,709 companies were successfully restructured under its scheme with the outstanding debt of 1,072.09 billion *baht* (23.11 per cent of GDP). Despite the fact that debts in bankruptcy and in CDRAC were comparable in size, the number of debtor was significantly different. Only 36 debtors owed their creditors in reorganisation as high as 173,709 debtors owed their creditors in CDRAC. On average, the debt owed by a debtor in reorganisation was horrifying 29.64 billion *baht* (0.64 per cent of nation's GDP); the average debt owned by a debtor in CDRAC was only 6.17 million *baht* – a difference of 4,800 times. Statistically, financial distress under reorganisation and CDRAC is accounted for more than a half of the Thai economy. Cases in reorganisation are threatening the Country due to its size despite relatively few debtors formally seek reorganisation.

1.2. Importance of Bankruptcy

It is common for a debtor to default on his creditor(s). There are many reasons for the debtor to default on creditors, ranging from just a simple strategic cheating trick to a fundamental unsoundness of the debtor's business. Generally, a creditor can pursue repayment upon default by its debtor through ordinary legal proceeding[2] (that dealing with debt and non-repayment). The debtor may default on one or more creditors.

Default could be viewed as a breach of the debt contract whereby the debtor could not follow terms and conditions described and agreed in the contract. One possible solution would be the renegotiation of the contract. If the default is a result of an unforeseeable impact, the creditor could reschedule the repayment and adjust the terms and conditions to allow the debtor to recover and a solution could be reached.

Nevertheless, things are more complicated when the debtor's wealth is not sufficient to meet his debt obligation. He is insolvent. It also implies either i) all creditors are not paid in full or ii) some creditors are paid in full, some are partially paid, and some are unpaid. One indication of insolvency is multiple defaults.

When there is more than one default, the ordinary pursuit by one creditor depletes the wealth of the debtor remaining for other creditors. The pursuit by one creditor of the debtor's assets when there are multiple defaults could be considered as an externality to other creditors. In such circumstances, any default would trigger the creditor to rush and protect his rights to be repaid. In an absence of an alternative proceeding, unless the debtor has assets more than debt, the debtor's wealth will be depleted quickly and repayment to creditor would be on a 'first-come-first-serve' basis. What matters is that those creditors who move first would have a much higher chance of being repaid in full; whilst the possibility of full repayment for subsequent creditors declines drastically.

Consequently, if the debtor is an individual, his assets might be seized according to the court order and it could leave him with nothing. He may be able to repay all his debt if an opportunity was given by creditors – rescheduling the repayment and exemption from interest payment, for instance. If the debtor is a company, the foreclosure of its assets could be

[2] Normally, the creditor presents to the court the contract and all evidences of default. If it is proved, the court would issue the seizure of the debtor's property to fulfil the repayment or the court will allow the creditor to take possession of the security, which was given as collateral when the debt contract was formed.

detrimental. Again, it may be the case that the company could generate a sufficient income stream in the future to satisfy all debt. The foreclosure would pull out some assets from the company. Once the decisive and important assets have been seized, the company's normal operation could not be continued. The total value of the company, as a result, would decrease and insolvency might be inevitable. The individual pursuit for repayment, hence, could make the company defunct and cause some creditors to be unpaid. Noticeably, there is an unnecessary economic loss.

Bankruptcy plays a crucial role when the breach of contract involves more than one creditor. Basically, it deals with how the loss of all creditors is distributed, providing that assets are less than liabilities: in other words, how the existing debtor's assets could minimise creditors' losses. In terms of personal bankruptcy, the law would not leave the debtor penniless. A part of the debtor's assets would be earmarked to finance his living expenses. For corporate bankruptcy, the equally important problem is how to dispose of the debtor's assets. The disposal that gives the highest value to the estate would automatically imply the minimisation of creditors' losses. Corporate bankruptcy could deal with liquidation where the debtor's asset is sold, either as a piecemeal or a going concern. It could, alternatively, deal with reorganisation where the debtor company continues its operation but undergoes substantial internal change, including its management and financial structure.

Bankruptcy is, therefore, simply a forum to renegotiate the debt contract where there is more than one creditor. Such a forum is necessary because, as the number of creditors rises, transaction and renegotiation costs increase drastically and a solution may not be easily obtained. The renegotiation would be on the future of the debtor company, whether it could afford to repay all debt obligations providing creditors alter the terms and conditions of debt contracts. Simultaneously, the debtor's management would negotiate for more favourable terms of repayment. Agreement would lead to reorganisation or restructuring. Disagreement would eventually lead to liquidation.

The economic interpretation of bankruptcy procedure is significant. It would be best if the debtor's assets are put into the highest valuation – which means that efficiency is attained. It does not matter whether the debtor company is still in business as long as the highest valuation is achieved; all its assets including human capital would be reallocated to the best utilisation.

At the same time, the redistribution of incurred losses for creditors should be allocated in such a way that it would not discourage creditors from granting credit in the future, increasing the interest rate excessively, nor rationing the credit limit excessively. Optimal risk sharing among creditors should be achieved according to their abilities to absorb risk and loss.

Finally, there should be an incentive for the debtor's management to be optimally self-regulated and not misuse its funds. Similarly, creditors should be encouraged to invest optimally in the monitoring of their debtors' behaviour. These two would be precautionary efforts to prevent insolvency, although it is not fully avoidable.

The last paragraph concerns *ex ante* efficiency when nothing has yet occurred, while the previous two paragraphs look for *ex post* efficiency. These show how a good bankruptcy system could promote economic efficiency. It is very interesting to understand how such efficiencies could be achieved in the context of the Thai bankruptcy system.

1.3. Research Interests and Objectives

The thesis investigates the economic role of bankruptcy legislation in the context of Thailand's economy including the *raison d'être* of bankruptcy law, economic analysis of bankruptcy law, and efficiency of bankruptcy law. It also evaluates the performance of the bankruptcy procedure in Thailand after the major amendment to include reorganisation clauses. The implication and effects on business firms in Thailand are analysed and a recommendation for further improvement is devised. All analyses are made with reference to economic efficiency. The focus of the thesis is on corporate insolvency, not on personal bankruptcy.

As a prerequisite, an overall understanding of bankruptcy system, without any specific reference to the Thai economy, must be studied, particularly from an economics perspective. The concept of economic efficiency leads the way into the crux and core of insolvency and legislation around it. It also provides a benchmark to measure how well the law has performed. This is crucial in identifying the true purpose and consequences of bankruptcy legislation.

Furthermore, the underlying fundamentals of Thai corporations and business practices must be evaluated in order to realise how relevant parties solve the problem of corporate distress in the absence of any legal support. A historical review of the Thai modern company in its early development is useful because legal rights were not actively enforced. With this review, we can understand the role of bankruptcy law in the context of Thai business more accurately and more precisely. The proper mechanism to solve insolvency efficiently *ex post* and prevent future distress *ex ante*, then, may be developed. Although it is obvious that two efficiencies could not be fully achieved simultaneously, a good and thorough understanding should assist in striking the right balance of these efficiencies in the law. The thesis tries to address how such balance could be achieved.

We also analyse the structure and functionality of Thai bankruptcy law by considering it as a part of a system to solve financial distress or insolvency. Relevant entities – creditors, debtors, and others – are concerned. The analysis covers the period before and after the amendment to include reorganisation clauses. If the current law is found to be ill equipped, an attempt to conceive a new mechanism will be made.

In addition, an empirical investigation into the efficiency of the law, after reorganisation was incorporated, is conducted by using econometrics tools. The results from the empirical study are used to gauge the economic efficiency of the law and how the law could be amended further to enhance efficiency. The empirical study also includes specific characteristics of Thai corporations to see if they have particular effects on the outcome of the procedure. The results obtained are used to justify the suggested mechanism as well as to assist further amendment in the future.

Henceforth, the objectives of this research may be summarised as follows:

1) to enhance the understanding of bankruptcy, its concept, its role, its legislation and authority in the economy by employing available economic tools and the concept of economic efficiency in the context of insolvency;

2) to examine Thai business practices with particular reference to the lending-borrowing relationship and the company in distress;

3) to analyse the current institutional framework and environment of the bankruptcy system in Thailand and evaluate its economic efficiency by using the knowledge obtained from 2) and applicable econometric methods; and

4) to discuss guidelines for the improvement of bankruptcy legislation and authority in Thailand in order to achieve greater efficiency or reduce existing deficiencies.

1.4. Contributions

Corporate bankruptcy or corporate insolvency has been a mainstay in the area of law for a long time. In the field of economics, however, there only has been considerable interest shown in the last few decades, particularly in the USA, UK, Japan, and Germany. Most research has been conducted with respect to the researchers' own legal systems that vary across countries. It is worth noting that Thailand had not amended the Bankruptcy Act for many decades despite its tremendous economic growth in the late 1980s and early 1990s.

This thesis will shed light on how a solution can be attained when there is an incidence of insolvency, privately and formally, in the borrowing-lending relationship in Thailand's business context. Such an understanding would allow the legislation to position itself in a more appropriate and efficient way to achieve the best possible solution to corporate financial distress.

Knowing this will allow us to understand that there is no universal answer to the insolvency problem. The optimal solution will vary across countries and depend on the way borrowing and lending is carried out. The resolution to bankruptcy must be from a comprehensive consideration of the institutional framework (the law and the authority responsible for bankruptcy) and the institutional environment (the business practices and relations) as well as the behaviour of the involved parties, which could differ even though they face the same stimulus.

Thai business practices are unique and many of them are contradictory with the conventional routine largely observed in the western hemisphere – relying less on the market mechanism. Though heavily influenced by Chinese tradition, it remains significantly different from Chinese and Japanese ways. This makes the bankruptcy procedures from other jurisdictions less relevant. If such procedures were implemented in Thailand, there would be attempts to get around the law which might lead to the deceitful exploitation of the law driven by opportunistic behaviour of creditors and debtors.

The analysis of Thai business practice reveals why non-market decisions and mechanisms could be relatively more efficient than market ones in the context of the Thai economy and its institutional arrangements and how such mechanisms have come about. Non-market transactions and cronyism can be, under some circumstances, efficient; they are the response to incomplete markets and some obstructions that prevent the markets working efficiently. This analysis gives a better awareness of non-market economics.

Opportunistic behaviour of creditors and debtors threatens the efficiency of the bankruptcy procedure. Therefore, a mechanism must be envisaged in order to avoid drawbacks and exploitation from such behaviour. Furthermore, bankruptcy legislation needs an update from time to time when business practices change as well as in response to changes in the environment in which the economy operates. The amendment of law, hence, should not come as a surprise. In additional, an attempt to standardise corporate insolvency law internationally would definitely be very difficult because law in each country is different.

The research shows that the degree of economic efficiency of legislation can be positively identified and measured by using suitable econometric methods. It reveals very interesting findings that characterise the Thai way of doing business and, of course, the outcome of bankruptcy proceedings.

It is found that bankruptcy is needed when transaction and renegotiation costs are too prohibitive. These costs are directly proportional to the number of creditors involved in the renegotiation process and prevent a solution being achieved voluntarily. Bankruptcy has the role to reduce such costs and lead all claimants to a settlement.

The thesis bridges the gap between the fields of law and economics and improves the understanding of bankruptcy in both areas. It also brings the knowledge of bankruptcy to the next step where concern with the law alone is not sufficient, but it should cover the interaction between law and related entities.

Finally, the results have further implications beyond the scope of bankruptcy law and the economic analysis of bankruptcy law. It is conjectured that a thorough understanding of the institutional environment is essential before any change in the legal framework is introduced to achieve a certain outcome. The lack of such an understanding may lead to undesirable consequences when a change in the institutional framework is exogenously implemented.

1.5. Thesis Outline

The thesis is organised as followed. Chapter 2 explains the discipline of law and economics which is used throughout this thesis. It is divided into two parts. The first part deals with the general perspective of the discipline itself including its development and how it could work in conjunction with other economic tools and branches. The latter part clarifies the interaction between the law, the legal system, and the firm: how the firm respond to changes in law and regulation.

Chapter 3 gives the overview of the Thai legal system and the Thai economy with specific reference to the characteristics of typical Thai companies. It is a prerequisite for understanding the environment – legal and economic – in which Thai companies are operating before knowing how the bankruptcy law will impact on Thai companies.

The economics of corporate insolvency is introduced in Chapter 4 to explain the Law rationale and its general function. Formal procedure - liquidation and reorganisation – and informal solutions are discussed in this chapter too. The concept of efficiency is also discussed including the difference between *ex post* and *ex ante* efficiency and the possibility of conflict that may arise.

Thai bankruptcy law is analysed in Chapter 5, for both before and after the amendment to include reorganisation. Any section or clause in the legislation that appears contradictory to economic efficiency is examined. Further detailed analysis is extended in Chapter 6 to analyse the behaviour of the firm in distress – on the verge of insolvency. This chapter explains economic activities within typical Thai firms, with the emphasis on cronyism from clans and connections. Then, it extends further to the borrowing-lending relationship and attempts to characterise what are specific to the Thai way of so doing. Later in the chapter, the threat of insolvency is introduced and possible solutions are investigated. There are mainly two avenues for that: one is a private workout and another is the formal, legal, procedure supported by bankruptcy legislation. However, a semi-official solution is viable too.

Chapter 7 empirically investigates the efficiency of the Thai bankruptcy system by using econometric methods. The empirical analysis tries to characterise companies through each major step in the bankruptcy procedure since the law has been amended. In other words, it identifies what kind of company would have a chance to survive (to be reorganised). Then, those characteristics are considered in terms of economic efficiency.

Chapter 8 concludes the research findings in this thesis and puts forward a recommendation about further amendment and guidelines to improve economic efficiency through the law. It also summarises the basic concept of bankruptcy and the role of the law to improve understanding on this matter. The limitations of the research are also discussed.

Chapter 2

Law and Economics Analysis and the Firm

This chapter examines the multi-disciplinary approach of law and economics, or so called economic analysis of law. Then it relates the approach with the behavioural aspect of the firm. The approach is useful for the research as it gives deeper understanding of the firm's behaviour under different rules of law. This will help to understand how the firm would behave under the enforcement of bankruptcy law. The Chapter is divided into two parts. The first one is a general review of the approach. The second part discusses the interaction between the law and the firm and how the approach could shed the light into the firm's behaviour.

Part I: Law and Economic Analysis

2.1. Overview

Law and Economics is an interdisciplinary study, combining two fields together, as the name suggests. Tools from another discipline are employed to improve the better understanding of one discipline, and *vice versa.* Economics is used to understand the law better – why, for instance, a certain law exists or why a particular rule governs the way it does. Simultaneously, the law helps to extend economic knowledge in a more realistic and more practical way, especially moving away from rigorous assumptions. Cooter and Ulen (1995) argue that both disciplines contribute to the advancement of each other.

The early involvement of economics in the field of law was in anti-trust or anti-competition legislation in the USA (Cooter and Ulen, 1995). Later it expanded to explain the behavioural effect of various laws. Cooter and Ulen (1995) state "...economics provides a behavioural theory to predict how people respond to changes in laws." They go further "... economics provides a useful normative standard for evaluating law and policy." One of the famous scholars in this field is Judge Richard A.Posner; he states "...the most interesting aspect of the law and economics movement has been its aspiration to place the study of law on a scientific basis, with coherent theory, precise hypotheses deduced from the theory, and empirical tests of the hypotheses.." (Posner cited in Faure and Van den Bergh (eds), 1989).

The core economic concept that is implemented in the approach is economic efficiency. It is better if the legislation can achieve its objectives at lower cost than at higher cost. The effect of laws on the economy seems to be neglected by conventional modern economics. Economics always assume that the law is there and is enforced equally upon everyone.

It cannot be denied that, in reality, there is an interaction between many social factors, including law and economics. Imagine the world without the enforcement of property rights or without properly defined property rights; no one could actually trade anything because the product could be stolen by someone at any time. For the same reason, if you were the buyer, you would not want to buy anything. If you were the seller, you would have no customers and a need to protect your products with your own physical strength. It would be hard, if you owned the firm, to protect your raw materials and your machineries; sooner or later, you would have to quit. Hence, it is crucial to have property rights to attract people to trade. It is also equally important that there is an enforcement of rights; otherwise, lawbreakers will bear no cost of doing so. Law and enforcement are, therefore, the prerequisite for the market economy.

More specifically, the incorporation of a company requires the law and enforcement to control the rights and duties of shareholders as well as of the company management. Otherwise, once the company is operating, there is no clear responsibility as to who should have the final say in the decision-making and the company could not survive.

Law also regulates trade activities by setting the framework for trade to occur, predetermining the rights and duties of buyers and sellers, and setting the penalties for those who do not comply. Some laws extend their roles to before and after trade; for instance consumer protection legislation or the law governing a fair trade.

From these we can see how important the law is to business and how law and economics interact. We could summarise the interaction between law and economics as follows. Economics, at the more fundamental level, explains the behaviour of choice under limited resources; while, law is the rule and enforcement to urge a certain kind of behaviour. Many economic activities, however, could be done in very inefficient ways (like the state of anarchy discussed earlier) and some external frameworks must be established to guide economic agents in order to achieve a better outcome. Not all law and enforcement will bring the same result. Properly designed legislation and enforcement can give incentives for agents to do what is the best, or the most desirable, outcome (or, in the economics' term, the most efficient outcome). To achieve this, it is necessary to understand the economic behaviour of economic agents under different circumstances. At the same time, if any law cannot achieve its desired result, economics could help to find out what the proper amendment is to attain the planned result.

The thesis, however, only focuses on the aspect of Law and Economics that are related to the firm, in particular during financial distress, including corporate law and bankruptcy law as well as the internal organisation of the firm.

2.2. Relationship with Neoclassical Economics

The neoclassical theory of the firm presumes the firm already exists. It does not give an explanation why the firm is there and how it is incorporated in the first place. Moreover, it also presumes that the property rights of all economic agents are properly defined and fully enforced without mentioning the relevant law and authorities. In other words, the firm is operating in an isolated, hypothetical environment. The firm is a 'black box,' where its origin and internal functions are unknown but can operate by itself.

These assumptions, although they simplify many things and make the analysis of price theory much easier, prevent the quest into how a change in the law would affect the behaviour of the firm or even how a firm's action could alter the law or the way the authority enforces the law.

Recent developments in the Theory of the Firm – including in the line of transaction cost economics, the firm as a nexus of contract, or the cooperative game theory of the firm (Williamson, 1975 and 1985; Aoki, Gustafsson, and Williamson (eds), 1990; Aoki, 1984) – no longer treat a firm as a black box but as an alternative mechanism to the market. Thus, they open up the possibility to study how the law could affect the behaviour of the internal arrangement of the firm. The theory of the firm, consequently, is much expanded with the assistance of Law and Economics. Reciprocally, the law and economics approach also contributes to the advancement in the Theory of the Firm. It is also worth noting that these developments do not invalidate neoclassical economics but rather complement it.

2.3. Related Tools, Methodologies, and Applications

A wide range of economic tools and methodologies could be applied to the approach of law and economics. In relation to the firm level analysis, more advancement in the theory of the firm would assist such analysis. A further discussion on various explanations of economic theory of the firm is described later in the following part.

A significant milestone in modern law and economics was by Ronald Coase. Coase (1960) explicitly illustrates the role of property rights and transaction costs, which are a departure from neoclassical microeconomics. He demonstrated what is now known as the Coase Theorem where, if transaction costs are sufficiently low, an efficient outcome will occur regardless of legal entitlement, providing that the legal entitlement is not ambiguous (i.e. property rights are properly defined and well enforced). But in a world of positive transaction costs, it will matter how property rights are allocated in order to achieve the efficient outcome to a particular situation.

Later, Williamson (1975, 1985) took the matter of transaction costs a leap forward. His works elaborate the firm and its functionality in detail, without any direct reference to the role of the law; but the firm's behaviour is explored and explained.

Judge Richard A Posner's early works in the field of law and economics were Antitrust Law (Posner, 1976) and Tort Law (Posner, 1982). Employing the economic tools to rationalise and explain the efficiency of antitrust law and tort rules, these works may be regarded as the very first application of law and economics.

The influence of law extends into the theory of the firm in terms of contractual economics. The firm is viewed as 'a nexus of contract.' Essentially, the firm is the group of the contractual relationship which cannot be achieved using the usual legal contract. The analysis tries to understand conditions where the normal and plain contract cannot be used and the origin of the firm.

Hart (1995) devised the term 'incomplete contract' to explain the existence of the firm. It is essentially an advanced explanation in the line of contractual and transaction cost economics combined. Incomplete contracts void the use of basic contracts because the transaction costs of predicting all contingencies and extensively writing down what to do in each event are too high.

Part II: Interaction between Legal Systems and the Firm

2.4. Legal Doctrines in Economic Context

Recently, the role of law in economic and financial development has been more recognised and has attracted a considerable amount of research – theoretically and empirically; for example La Porta *et al* (1997, 1998), Demirgüç-Kunt and Maksimovic (1998), Pistor, Raiser, and Gelfer (2000), and Beck, Demirgüç-Kunt, and Levine (2001, 2002a, 2002b). One of the points that characterises these works is the influence of legal doctrine on economic performance.

The very fundamental rules of law are the definition and authorities related to the enforcement of the property rights basically for the shareholders and the debt holders (La Porta *et al*, 1998). The difference in the degree of definition – rights and duties – and the degree of protection or enforcement have an impact on the behaviour of economic agents, including the firm.

2.4.1. Overview about Law

The law may be viewed as a superstructure of society. It controls, gives incentives, encourages, deters, and discourages everyone to do or not to do something. Actions that are deemed to be socially desirable are encouraged. On the contrary, non-desirable actions are discouraged by attaching punishments or fines. Since human behaviour is mainly driven by natural needs and somehow the freewill of human can do more harm than good as self interests always clash, humans, thus, relinquish their absolute freedom and let somebody (the state) control them. The instrument to achieve this control is the law. Basically, "legal rules are to be judged by the structure of incentives they establish and the consequences of people altering their beviour in response to those incentives" (Friedman, 2000). The law is, thus, one of the significant social institutions. However, it would not have any significance on its own; it must interact with others – politics and economics, for instance – as a part of society.

2.4.2. Legal System and its Implementation

There are two main families of legal systems: civil and common law. The common law system relies on tradition. It is based on the concept of 'judge-made' law. Although it is not the judge who makes the law, it is the judicial judgement without the support of explicit statutes or codes that has been made by the judges and then later regarded as the law. If a case was fully applicable with the one that has been given judgement earlier (i.e. *res judicata*[1]), the decision must be the same. A deviation from the previous cases allows the judges to make a different verdict but the principle of *De minimis non curat lex*[2] should be applied whereby the extremely minor transgression from the law (i.e. existing verdict) would not be considered. The common law system is based on English law. It is widely used in the United Kingdom and its former colonies and the United States of America (La Porta *et al*, 1998).

Fundamentally, the common law system is flexible for the 'new'[3] case. It allows judges to consider and deliver the suitable verdict. For the 'old'[4] case, i.e. the case that already has a judgement, the judge must give the same verdict as previously. The system of common law is designed to divert the resource to 'new' cases only; any case that is virtually the same as one previously adjudicated is not deemed worthy of consideration as the verdict would be the same as the earlier judgement too. The resource allocation of the common law system is that most of the resources are for studying 'new' cases, while 'old' cases merely follow existing verdicts and resources are conserved. In other words, the balance in the common law is the flexibility for new cases and the rigidity of old cases.

Meanwhile, based on Roman law, the civil law system is the oldest system. It is widely used in Continental Europe and its former colonies. Under this system, extensive statutes and codes are the foundation. The judgement is, subsequently, made on the interpretation of these legal inscriptions by legal scholars. In principle, the statute cannot be employed directly to the case because each article within the statute is very generalised. It needs to be applied and sometimes more than one statute or code is relevant to a case. Therefore, every case requires an independent consideration from legal scholars (i.e. judge) to find the relevant and applicable statutes or articles in the statute before arriving at the final verdict. In some complicated cases where the proper law is not available, the judge has to exercise a proper normative judgement by selecting suitable articles in the statute in order to reach a final decision. The verdict must have support from existing statutes; otherwise it is not justified. Essentially, the balance in the civil law is the flexibility of the judges' interpretation of the statute and the rigidity of the statutes.

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[1] A matter which has been conclusively adjudicated by a court.
[2] Judges will not sit in judgement of extremely minor transgressions of the law.
[3] A 'new' case means the one that has the attributes not similar to those sentenced cases. The principle in Footnote 2 is applied.
[4] An 'old' case means one that has virtually every aspect of the case comparable to a sentenced case. As it has nothing to contribute to the knowledge of the law, the Common Law system uses the same verdict.

Notably, both systems have different rigidity and flexibility from each other. That is what makes the difference in term of the fundamental rights and duties of shareholders and creditors in each regime. Although the regime has a significant impact on the rights and duties of shareholder and creditors, equally important is the enforcement of the rule of law. Regardless of how well the law is written, it would come to nothing if enforcement were not effective. The protection of shareholder and creditor rights and duties requires both ingredients – the rule of law and its enforcement.

2.4.3. Religious Law

Many countries have their legal systems closely associated with religious beliefs and philosophies. In the Islamic world, for instance, religion has a vital impact on legal practice and the justification of law. Under the laws of the Shariah, depositing money to earn interest is forbidden. Zweigert and Kotz (1987 as cited in La Porta *et al*, 1997), however, claim that religious traditions appear to be less relevant in matters of investor protection. They argue that most commercial law in Arab countries and India is strongly influenced by the previous colonial powers rather than their own religious beliefs.

Although their examples are valid, their argument does not apply to every religion and every country. Judaism has an extensive and comprehensive commercial law including dispute settlement and judicial guidelines. The work by Tamari (1995) reveals, in detail, how Judaism deals with commercial disputes and how economic concepts are incorporated in Judaism. Moreover, many Muslims strictly obey the Law of Shariah and actively not engaging in any lending activity that would earn them interest. Thus, it is not really justifiable to discard the consideration of religious law. In fact, even though a certain action may not be contradictory to a rule of law, it could be unacceptable in practice and carry social sanctions and punishments.

2.4.4. Legal Rules and the Protection of Investors

La Porta *et al* (1998) empirically investigated 49 countries with different legal rules and discovered that the common law system is relatively stronger than the civil law system in terms of the protection and enforcement of the property right held by shareholders and creditors.

The relative strength of the common law system may arise from the historical development of the Anglo-American economy itself. The relative faster development forced the rule of law to accommodate the economic situation; the common law is more flexible in terms of the amendment of the law. The common law requires only differences from the existing cases (which should be different as the economic situation changes) to adapt, but the civil law requires lengthy procedures to amend and enact new law.

The legal doctrine is only a part of the story. Enforcement is relatively more important. The lack of enforcement would make the doctrine and the law irrelevant. Hence, the legal and justice institutions must be considered together. Equally important is the behavioural aspect of the people under the law themselves. If they challenge the law all the time, it will undermine the effectiveness of the law and its enforcement. In other words, the most important thing is how people respond to the rule of the law.

2.5. Law and the Theory of the Firm

Internal functionality of the firm is a big mystery in economics. Many attempts have been made to discover what is inside the firm and how the firm operates. Thus, there are many strands of theory to explain the existence and functionality of the firm. Advances in the theory of the firm allow us to investigate in greater detail the structural and behavioural response of the firm to change in laws. The following are the principle theories about the firm and how the law has its place.

Asymmetric Information

The explanation through the line of asymmetric information supposes that parties engaging in a particular transaction have different knowledge or information regarding the item of concern – goods and services, of course. Within the firm, this could be the contract between the management and the employees or between the owners (shareholders) and the management or even the decision to complete a certain task, whether to do it in house, or purchase it from outside.

Due to the imbalance of information, the party with relatively more information has the advantage over the other and can use the advantage to exploit the relatively less informed party. The exploitation could be done before the transaction is completed, e.g. purchasing at a higher price than the real value, which is called 'adverse selection,' whereby the less informed one chooses the less-than-ideal option. When exploitation occurs after the transaction has taken place, this is called 'Moral Hazard,' whereby the more-informed party alters its behaviour and does not follow the formerly agreed transaction with the less informed one.

The possibility of such opportunistic behaviour, subsequently, gives rise to non-market mechanisms which become the internal organisation of the firm. The firm can supplant its own rules of transaction in place of the market or price mechanism to prevent the possibility of opportunistic behaviour. Hence, the internal organisation of the firm is a non-market mechanism that has been designed to avoid opportunistic behaviour by creating the proper incentives for the relevant parties to reveal their information and attain the first best decision for the firm as a whole. Surpluses from better performance of the firm are used, then, as the incentive in the mechanism.

Law can have an effect on how the internal organisation is established – therefore, it influences, to a certain extent, the scope of the firm. If the law could reduce asymmetry in information effectively, the transaction might be conducted in the market through the price signal. Consequently, the internal mechanism would be replaced by the market mechanism. The situation could be reversed when the law makes it more costly to obtain the relevant information to achieve a certain task; thus, the internal organisation would supersede the market.

Game Theory

Using game theory, the origin of the firm is explained by co-operative games between various entities. The work pioneered by Aoki (1984) explains in detail how co-operative games are played that result in the formation of the firm. Generally, the price mechanism, or the 'invisible hand', is actually the solution to a non-cooperative game; meanwhile, the non-price mechanism operates in a co-operative game environment where the rules of the game do not allow the price mechanism (as a solution to a non-cooperative game) to work efficiently.

Game theory assists analysis into the behavioural response of players inside the firm by treating certain relationships within the scope of the firm as a game. The rules of each game allow a different solution to a game. Therefore, the law can be regarded as the rule of the game. If the solution to such a rule is too prohibitive, the players might agree upon a different rule (i.e., firm's structure) to achieve a solution.

The role of law comes into play by setting the general rules of the game, e.g. for several transactions including trade, employment, and borrowing. Most of the games that could be achieved under the law could be done through the market. Games with impasse under the law may resort to outside solution options under a different set of rules. Non-legal rules, then, become the structure of the firm for its internal operation.

Analogously, the change in the law can have an impact on the scope of the firm. If the law changes in the direction that allows the game to achieve a solution, the internal set of rules may be less relevant and could be dropped. The transaction that occurs inside the firm could, subsequently, be achieved in the market environment.

Transaction Cost Economics and Contractual Economics

The explanation through the light of transaction cost economics to the existence of the firm is even more convincing. Introduced by Williamson (1975, 1985), the transaction cost is a useful concept where there is a cost attached to every transaction. In some situations, the transaction cost might be too prohibitive and the transaction not achieved. Therefore, if there was an alternative with a sufficiently low transaction cost, the transaction could be completed. Accordingly, the firm is established as the mechanism with a relatively lower transaction cost than the market for a particular set of operations; in other words, the firm has higher economic efficiency than the market on that area of operation. Any operation for which the market offers a lower transaction cost would be conducted in the market; any operation that has higher transaction costs in the market would be performed within the firm.

Transaction costs are affected by the change in the law. The law and enforcement can give rise or reduce the transaction costs associated with various kinds of transaction. If the law makes the transaction cost decline for a particular transaction, it is more likely that the transaction could be done in the market and *vice versa.*

There is the extension to transaction cost economics explaining the scope of the firm by Hart (1995) and Grossman and Hart (1983, 1986). It considers the possibility of *incomplete contract* whereby, in reality, the contract for a certain transaction cannot specify all contingencies that may arise during the period of contract. The contract itself is also subject to external uncertainty. Hence, the performance specified in the contract might not be optimal when the unexpected occurs. Renegotiation of the contract could help to achieve the better solution. In addition, even if all contingencies can be specified and accompanied by a corresponding action in each situation, the cost of doing so may be extremely high and outweigh any benefit from the transaction. In the most extreme case, even if all contingencies could be identified and corresponding actions specified at a sufficiently low cost, there would be problems of justification, quantification, and verification of each contingency. The trading parties could dispute upon which performance is applicable to the current situation. Such a dispute could also undermine the achievement of the transaction. Moreover, when the dispute has been brought into the fiat's attention, the contingency must be verified by the fiat (e.g., law and legal authorities). If the contingency is non-verifiable (for instance, the exertion of sufficient effort by a particular agent), the judgement and enforcement by the authority could be erroneous. Non-verifiable variables are numerous; some of them can be observed but cannot be verified, some are unobservable and non-verifiable. This problem would also prevent the transaction occurring.

The firm emerges to overcome these shortcomings or so-called 'incompletenesses.' Its internal organisation and structure would replace the market mechanism. The ownership also emerges within a firm as a residual claimant (or a purchase of the residual rights) to have the final decision when the unforeseen occurs (Grossman and Hart, 1986). Virtually the boundary between market and firm is identified. The role of the law comes through the degree of contract incompleteness. If the law makes the contract relatively more complete, the role of the internal structure is reduced and *vice versa.*

Institutional Economics

Institutional economics employs a different analytical approach, which could be the most radical. It treats the economic system as a set of institutions. Institutions are basically the mechanisms to solve conflicts: different kinds of institution solve different conflicts (Rutherford, 1994). Of course, the market and price mechanism are institutions to solve the conflict of trade – how to transact the property rights over a particular thing safely. Analogously, the firm is another, alternative institution to solve the similar conflict which could not be achieved through the market.

North (1990) puts forward the argument that the institution must be analysed in the context of 'institutional arrangement' and 'institutional environment.' The institutional arrangement is the structure of the institution's operation to achieve a certain task. It must be designed to exploit all possibilities within its own structure to achieve the best possible outcome, i.e. the most efficient one (in plain economic jargon) or the improved 'economic performance' (in North's words). Meanwhile, the 'institutional environment' is the environment that a particular institution operates in. The interaction between these two domains is crucial for the approach. The change in the institutional environment has an impact on the institutional arrangement as it affects the functionality of the institution and the readjustment of the institutional arrangement is required to achieve the efficiency, or to increase the efficiency, beyond the initial level. Similarly, the evolution of the institutional arrangement also affects the institutional environment; as the institutional arrangement changes, the institutional environment would have to readjust itself to cope with the changes.

In the context of the firm, the firm is considered as an institution. Its structure, rules, and functionality are the institutional arrangement. The institutional environment is how the firm deals with its suppliers and customers, how it should behave under government control, including law and regulations, tax, and investment privilege, and how the firm is affected by the overall macroeconomic condition. If the law has changed, the firm should readjust itself to exploit the potential gain in economic performance (or efficiency). Therefore, economic efficiency can be improved by appropriately creating the institutional environment – including laws, regulations, and their authorities of enforcement to allow (or give the incentive to) the institutional arrangement (structure of the firm) to adjust accordingly.

Essentially, instead of being substitutes, all approaches are complementary to each other. They are helping each other to explore the inside of the firm. More importantly, all of them consider the significance of law and its role on the performance of the firm. It is useful to employ all these approaches to our analysis.

From these theories, it is worth noting that not every firm is similar. There are some attributes that make firms adopt different internal structures and forms of control. In short, the degree of using the market mechanism varies across firms. All the above explanations seem to point into the same direction about the factors that make the firm's structure differ.

Williamson (1975, 1985, and 1996) christens these factors as 'asset specificity' and 'indivisibility' and the exposure to 'uncertainty.' Asset specificity means a certain venture or investment that needs specially designed, tailored made, technologies, knowledge, or assets to achieve the task. This kind of special asset cannot be resold in the market or has an extremely low scrap value but has an extremely high value for the firm's operation. Indivisibility is related to ventures of considerable size that could not be done in stages or a combination of smaller investments. It is a 'once-and-for-all' kind of investment. These two factors influence the sensitivity of investors to uncertainties. The last one is how the nature of venture is affected by uncertainty.

These factors could be considered from different aspects. In the context of incomplete contracts, high asset specificity makes the contract incomplete because of the complexity of the investment that is not be easily described in the contract, or it is excessively expensive to write a complete contract. Analogously, highly indivisible investment is a complex task and requires a comprehensive contract to control it. Considering an exposure to uncertainty, more exposure means more contingencies as the situation changes quickly. Thus, the contract should cover and specify the duties of contracting parties in many circumstances.

Extremely complex investments could also make some parties less informed. Subsequently, the problem of asymmetric information follows. Similarly, the size of investment takes the rationality of economic agents to the limit and causes a distortion of information. Uncertainty results in relevant information changing quickly and paves the way for the asymmetric information problem.

Baker, Gibbons, and Murphy (2001) integrate two branches of the theory of the firm: asset ownership (incomplete contract) and relational contracting (informal and unwritten agreement that sufficiently influence the behaviours of individual within and between firms). Both stands explain the need to circumvent difficulties in written, formal contracting. Their model compares relational contracts within and between firms and discovers that relational contacts are prone to shirking or, in their term, 'reneging' since such contracts cannot be enforced by a third party (e.g. the court). Temptations to renege make asset ownership matters.

Choosing between firm (integration/informal) and market (non-integration/formal) is affected by uncertainty, outcomes, and incentives in each situation. Both interact with each other and it is possible to adjust the formal aspect of relationship (market/asset ownership/written contract) to facilitate the informal aspect (firm/integration/relational contract) in order to optimise or improve economic performance. This is testifies by the existence of other non-conventional organisational forms such as "joint venture, strategic alliance, networks, business groups, clans, and virtual organisation" as well as the existence of internal organisation processes including "transfer pricing, capital budgeting, compensation, and corporate governance" (Baker, Gibbons, and Murphy, 2001).

The model by Baker, Gibbons, and Murphy (2001) also focuses on the role of non-owner management in the firm by emphasising the importance of relational contracts. Non-owner management is responsible for development and maintenance of relational contracts, both within and between firms. Since relational contracts are prone to reneging, it is the management task to honour some contracts or to breach some others under circumstantial complexity, which cannot be specified in formal written contracts. Management's judgement and knowledge in making such a decision is crucial to organisational performance.

By and large, they are all focus more or less on the same problem but from different perspectives. All theories are relevant to explain the behavioural aspect of the firm in terms of why it exists, how the internal structure is formed, and why internal organisations are different.

2.5.1. Law and Corporate Governance

Corporate governance is an issue relating to the performance and the efficiency of the firm. It is an internal problem when the ownership and control of the firm is integrated. It becomes a problem that can be solved in the market when there is separation between ownership and control. The firm itself is a non-market mechanism (or hierarchy). The management, however, could be internally appointed or externally appointed, or even a hybrid of these twos. Williamson (1996) employs similar analysis to the firm for this issue of corporate governance. He suggests that the degree of the firm's asset specificity, indivisibility, and the frequency of disturbances affect the choice of managerial appointment.

He also added that the way property rights are defined and the contract law does affect the choice of the governance (Williamson, 1996). Property rights are the fundamental for the owner of the investment to enjoy a return from the investment. If property rights could be easily expropriated by the government or other parties, the scope of the firm is enlarged and the tendency to have internally appointed management increases.

Furthermore, contract law is regarded by Williamson (1996) as the generic form of governance. The most basic governing arrangement to perform a certain task involving more than one person is support by the form of contract. The more efficient contract law is, the more attractive the contract. If contract law is rather basic, it cannot deal extensively with breach of contract and enforcement of the contract. Thus, transactions would occur under the protection of contract law less than under alternative forms.

The efficiency of the firm is directly proportional to the efficiency of corporate governance. In turn, the efficiency of corporate governance depends on the nature of the venture itself, the choice of governing form, and the strength of property and contract laws. Other laws that might relate to a venture or a transaction could influence the form of governance, too, particularly company law. Charkham (1995), investigating company law and corporate governance in five countries, revealed corporate governance is affected by company law. Different company law causes different governing patterns. Company law should offer two main encouragements: dynamism and accountability to enhance corporate governance. Dynamism is the ability of the management of the firm to operate without a threat from government interference, litigation, and replacement; while accountability is the assurance that what the management has done in its disposal is proper and that remedial action exits if the managerial discretion is wrong. However, company law becomes relatively irrelevant if the firm is operating on a multinational basis.

2.5.2. Law and Financial Structure of the Firm

The choice between equity and debt financing or the mixture of the two is one of interesting topics in economics and finance. Modigliani and Miller (1958) propose the irrelevance of equity-debt choice and further mention that it is tax structure that attracts the firm to use debt financing. However, evidence proves otherwise: there is a combination of debt and equity financing. Difference lies only in the proportion of one to another.

Jensen and Meckling (1976) on the agency cost of equity and debt indicates that debt is used as a signalling and commitment tool for the management. Such tools are needed because asymmetric information between the management and the owner allow the problem of managerial discretion to occur. In terms of transaction economics, the contract between the owner and the management is incomplete, thus the possibility of managerial opportunism arises (Williamson, 1996). The conflict between ownership and management on residual claim (or the final word on the firm's decision) relates to the choice of financing. Williamson (1996) further pairs the financing method with the mode of transaction: debt financing with external procurement (contractual relationship or 'market mode') and equity financing with internal structure (hierarchy).

Since the financial structure of the firm is a part of the corporate governance problem, financing becomes the tool to rectify the problem. There are also the associated costs, or inefficiency, from doing so (Jensen and Meckling, 1976; Williamson, 1996; Aoki, 1984). In the light of agency theory, it aims to devise a mechanism that improves *ex ante* efficiency – i.e. optimal risk sharing or the optimal financial structure. Meanwhile, transaction cost economics focuses on *ex post* efficiency improvement and how the adjustment in financing could increase the firm's performance.

Thus, the financing method of the firm depends again on asset specificity, indivisibility, the exposure to uncertainty or disturbance, and the frequency of transaction. Williamson (1996) predicts that the asset specificity reduces the attractiveness of debt financing because the low resale value of the specific asset – in the event of default (the investment fails) and creditors seize the asset for repayment – discourages potential lenders. An investment with relatively high asset specificity, hence, would have been financed by relatively more equity. An investment with relatively low asset specificity – easily redeployable (in Williamson's term) or can be easily liquidated – would have been financed by relatively higher debt.

On the external side, the relative strength of property right enforcement for equity holders and for creditors is a determining factor. A relatively more stringent shareholders' rights protection would lead to equity financing being relatively more attractive while a relatively strong creditors' rights protection makes debt financing more attractive.

2.5.3. Change in the Law and Behaviour of the Firm

The behaviour of the firm, hence, is the result of the solution to the problem of the transactions required to achieve a certain task where there is more than one party involved and the interest of each entity is not fully aligned. The solution includes the limit or the scope of the firm: which transactions should be done in-house, the choice between contractual relationship and ownership, the internal structure and control by hierarchy (who has the final say), and the financial structure (how to fund the investment).

Ideally, the first-best, most efficient solution is the one that will align all interests of the different entities together. However, there are some discrepancies; for instance, the corporate governance and the separation between ownership and control. It could allow some parties to pursue their own goals and compromise others as well as the firm as a whole – opportunism – that would lead to the sub-optimal efficiency. Higher-than-optimal risk taking or higher-than-optimal debt financing, for example, are early warning signs of inefficiency and weak governance.

If the deviation from the optimality becomes general, there is a possibility of an amendment in the law to realign the discrepancy and to provide the incentive for firms to improve efficiency. Changes in property rights protection for equity-holders and creditors, contract law, and other commercial related laws, which influence the protection of the rights, would eventually affect the behaviour of the firm.

2.5.4. Success and Failure of the Firm

The success and failure of the firm is down to its ability to respond and adapt to a multitude of changes and uncertainties as well as how the alignment of transactional problems within the firm is achieved and how quickly and correctly it moves in response to the external impact. In terms of transaction cost economics, the success or the efficiency of the firm will depend on the ability to suppress opportunism within the hierarchy. Alternatively, it is the ability to designate the residual claim (or 'the final say') to the proper agent in order to make a decision when the unexpected occurs. In the asymmetric information explanation or agency theory, it is the optimal incentive scheme that will prove successful. In game theory, it is the rules of the game that maximise the total of players' payoffs given players are internal entities of the firm.

Basically, the choice of control structure or hierarchy as well as the choice of financing method should be as close as possible to the optimum level, providing the nature of the business includes asset specificity, indivisibility, exposure to risk, and the frequency of transaction, which varies across firms and industries.

The absolute minimal benchmark, as an alternative mechanism, is the market mechanism. If the firm does worse than the market, its existence is no longer justified and it should be liquidated. All transactions within the firm could be better achieved through the market. Apart from competing with the market, firms must compete with each other, particularly in a comparable business – i.e. similar nature of business or similar asset specificity. The competition is rather on the relative closeness to the optimal choice of control structure and finance. Proximity to the optimal implies higher efficiency and the lower costs of production and, hence, a successful firm.

Since the choice of structure and finance could be affected by changes in the law, it is in the public interest for the law to provide sufficient incentive for the firm to choose the proper and efficient structure. Nevertheless, law cannot be too specific as the nature of business is highly diversified. It must promote dynamism and accountability as Charkham (1995) says, to let entrepreneurs or owners design the appropriate structure.

2.6. Concluding Remarks

It is clearly seen how important of law is to the firm. The development in the Theory of the Firm and Law and Economics discipline opens up the secret of the firm as a 'black box.' The behavioural aspect of the firm has been investigated in greater detail. The role of the law and the influence of the law on the firms' behaviour are also explicitly examined.

Although there are a number of explanations on the firm, they are essentially identical, and just differ in term of unit of analysis and some perspectives. No radical difference. However, some explanations are relatively more powerful in their capacity to explain some kind of corporate behaviour.

The most fundamental legal issue to the modern corporation is property rights and their enforcement, for both equity-holders and debt-holders. The second important issue is contract law as it is the foundation for the market exchange. Contractual relationship supported by the contract law is the most basic and simplest transactional form under the market mechanism.

Changes in the law and enforcement regarding these two would certainly have an effect on the firms' structure and behaviour.

Company law is another determining factor on firms' behaviour. It is the law that directly influence corporate governance. It could induce the desirable governing structure. However, its effectiveness is territorially limited; it becomes less relevant if the company is operating in the multinational level where the governance structure is usually determined from its headquarters (Charkham, 1995).

Finally, the role of bankruptcy law is very crucial as it does directly affect the rights and the protection of the rights of creditors in the special event – debtor's multiple defaults. In the bankruptcy proceeding, the protection of creditors' rights is differently treated, compared to the ordinary creditors' rights when simple default occurs. It is very interesting to examine into the behavioural aspect of the firm when there are multiple defaults.

Chapter 3
Law and Economics in Thailand

This chapter investigates the legal system in Thailand and the nature of Thai business firms. It focuses on how legal institutions shape modern Thai companies. In other words, it will shed light on whether the general characteristics of Thai companies today have been influenced by the institutions of law and justice. The first section reviews the development of the Thai legal system and commercially related laws. Section 3.2 discusses Thai companies and their general characteristics and analyses how these characteristics are affected by law.

3.1. The Thai Legal System and its Laws

The system of law and justice in Thailand can be traced back for more than 700 years. It evolved at a slow pace until it was threatened by imperialism and colonisation in 19th century when rapid change occurred. The development of the legal system is unique due to the fact that Thailand has never been colonised. In Asia, only Japan and Thailand retained their sovereignty at the height of colonialism. There is a belief that the escape from the imperialist's threat owes much to the 'leaning-against-the-wind' foreign policies and the fast complying legal reform.

3.1.1. Development of the Thai Legal System

Prior to the Legal Reform of 1880

The Thai political and legal system was of Indian legal inheritance via Khmer (Cambodian) civilisation, which dominated the region from the 8th to 11th century. A core of the system was the doctrine of '*deva-raja*' or the 'god king,' whereby the king is the avatar of the god and has divine kingship as well as absolute power. However, the exercise of the King's power was framed by the Hindu *Dharmasastra*[1], which is the code of laws, including the whole Hindu law, basically explaining 'do and don't.'

Later in the 13th century, the Thai legal system absorbed the new concept of *Theravada Buddhism*. This was a direct challenge to Hinduism whereby *dharma-raja* or the righteous king was introduced. Buddhism believes in the cycle of life and reincarnation depending on the 'good' and 'bad' things humans do. Doing good things would send one to a better next life. Those who do wrong travel in the opposite direction. A tough current life implies bad behaviour in the last life. Although Buddhism rejects the existence of God and, hence, voids the legitimacy of the god king, the legitimacy of the king remains because those who become king must have done good things at least in the last life. Thus, consent is made for the king to reign.

Structurally, the system incorporated the *deva-raja* with the *dharma-raja* very well (National Identity Board, 2000). They were merged nicely in Thailand. One of the prominent Buddhist's teachings is the Tenfold Practices (also known as the Duties of Kingship, the Ten Royal Virtues, *Dasa-raja-dhamma*, and *Tossapit Rajatham*)[2], which remains effective even until now. The codification of Hindu and Buddhist laws were the core of the system. Recent researches in Thai ancient laws (Huxley, 2000 and the research project at SEACOM Southeast Asia Communication Centre Berlin[3]) has discovered that there was a large collection of legal literature sharing Buddhism and Hinduism influences.

The king was, at least in theory, believed to be the one who preserved the value or the sacredness of the rule of law (Prokati, 2003). However, under the *deva-raja* doctrine, the king was, essentially, the sole judge and, thus, the king also made law, as he was the reincarnation of god. In practice, the king could follow the codified law in order to reach the verdict or he could exercise his discretion and deliver his own judgement. It was down to the individual king to follow the guidance from the laws and the Buddha's teaching.

Subsequently, there was quite a dilemma whereby the king had the sole power to make the judgement yet there were a lot of legal codes even before modernisation. On one hand, the legal system appeared to be very similar to the common law system whereby the judge – the king in this context – makes the laws. On the other hand, the comprehensive ancient legal literature could be regarded as a civil law system, although with no similarity to the Roman law at all. It is worth noting that as the Kingdom expanded, it was impossible for the king to hear all legal cases. Here was where the written, codified, law played its role when officials of the king were appointed as judges to consider legal cases. Their decisions had to be based on the interpretation of the codified laws. Nevertheless, the exercise of personal discretion was observed and not uncommon in the past. The inference we could draw here is that there is an ambiguity in associating the traditional Thai legal system to either the common or civil law

[1] It could be literally translated, in Thai context, as 'the science of moral and righteousness.'
[2] Tenfold Practice for Kingship comprises of alms-giving, morality, liberality, rectitude, gentleness, self-restriction, non-anger, non-violence, forbearance and non-obstruction.
For more information, see http://www.lankalibrary.com/Bud/dasa-raja-dhamma.htm
[3] http://www.seacom.de/taicul/special.html

system. By the will of the law, it seemed to be a civil system; in practice, the mixture of '*deva-raja*' and '*dharma-raja*' and the absolute power of the king on the jurisdiction pointed towards a common law system.

The last legal code was the Three Seals Code which was inherited from the laws used in the Ayudhaya period (1350-1767) and was enacted in the early Rattanakosin period. This law itself was revised due to the contradictory verdict given by the codified law and the king's opinion upon a certain lawsuit (Prokati, 2003). It was implemented until the legal reform of 1880 during the reign of King Chulalongkorn.

The Legal Reform of 1880 and After

The threat of imperialism and colonialism was become increasingly apparent for the South East Asian region in the early 18th century. The occupation of India made the threat clearly visible and noticeable. For Thailand, during the reign of the famous King Mongkut[4] (1851-1868), the milestone of the western threat was marked by the Bowring Treaty with England in 1855 whereby the Thai authorities lost the power to control the country's international trade and extraterrestrial rights[5] were granted to the British subjects.[6]

Seen by the westerner, the Thai legal system appeared rather barbaric and antiquated. It did not fit with the concept of justice in the western world, neither by its common law nor by its civil law standard. Many legal and judicial practices were deemed to be against humanity; for example the use of torture to force the accused to plead guilty.[7] And the most important thing was that all imperialist countries were using so-called barbaric justice systems as an excuse to colonise other countries.

An attempt to modernise and reform the legal system was made by King Chulalongkorn (1868-1910), a successor to King Mongkut, as a part of the big reform of Thailand.[8] The legal reform followed the civil law system laid out by the general advisor to the King, Gustave Rolin-

4 King Mongkut (also known as King Rama IV) was dramatically portrayed as a key figure in Anna Leonowens' "The King and I."

5 Extraterrestrial rights were included due to the alleged 'barbaric' nature of traditional Thai laws. This would make British subjects triable under English law and procedure instead of Thai.

6 Not much later, most of the western superpowers signed the similar treaties.

7 It was believed that the innocent would pass all tortures without sacrificing his/her honour as along as he/she was really innocent.

8 Coincidentally, it occurred at the same time as to the Meiji Restoration in Japan. Japan and Thailand are two Asian countries that have never been colonised.

Jacquemyns[9], a Belgian law scholar, who was later honoured with Thai nobility as *Phraya Apairaja*. Rolin-Jaequemyns and a group of foreign legal scholars[10] pioneered the reform, initially, by compiling and re-codifying Thai laws into comparable more modern forms modelled on the civil code of Belgium and France (Huxley, 2000; Prokati, 2003). They also introduced modern laws into the Thai legal system as well as cancelling irrelevant traditional Thai laws. Many law enactments were made in French, German, and English before being translated into Thai due to the lack of Thai legal scholars. The reason for using more than one language was a political one – to preserve the neutrality of Thailand.[11]

Why the choice was made to base the legal system on the civil law is unclear, nevertheless interesting. The most prominent proposition is that because the civil law system is based on the codification of law, laws are in written form, and the implementation of law is based on clearly defined rules allowing a certain degree of interpretation. The rule of law can be compared with that of western civilised countries. Unlike the common law system, although the rule of law may be identical to that of the superpowers, it can still be argued that similarity is mere coincidence. An alternative proposition was the choice of the Belgian expatriates to assist legal reformation. As the employment of British or French legal advisors and scholars could become an excuse for these two governments to occupy Thailand, selecting employees from more neutral countries was the safer policy. Belgium has an identical system to France and has a monarchy. This was seen as a logical choice for Thailand.

Later, one of King Chulalongkorn's sons – Prince of Rajaburi (or Prince Rapee), a law graduate from Oxford – became the spearhead of the process and inevitably introduced more English common law influences and legal practices into Thailand. Legal reform is one of the longest processes in the Thai modernisation plan. The initial outcome of legal reform was the emergence of four major codes: the penal code, the civil and commercial code, the penal procedure code, and the civil and commercial procedure code. The process continued and lasted up until the revolution in 1932 to replace the absolute monarchy with constitutional monarchy.

[9] In some sources, the name reads Gustave Rolin-Jaequemyns.
[10] Primarily Belgian and French.
[11] If the law was enacted in English, non-English speaking powerhouses would claim that Thailand was siding with England. Moreover, England could also claim its control over Thailand as the law was written in English. Similarly with the law enacted in French, France could invade Thailand proclaiming that Thailand uses its law. German was used as another preventive measure.

3.1.2. The Modern Thai Legal System

Intrinsically, the Thai legal system is categorised as a civil system (Huxley, 2000) due to the possible reasons mentioned above. The framework of legal practice and jurisprudence is also the civil law. Unlike the common law of the Anglo-American system, Thai jurisprudence employs no jury and the verdict must be reached in accordance with the written law. This is contradictory to the classification of the Thai legal system in La Porta *et al* (1998) that regards the Thai system as one of common law. We strongly disagree with the classification of La Porta *et al* (1998). The underlying system of law is the civil law.

As mentioned earlier, the very first Thai legal scholar, Prince Rajaburi, had graduated from Oxford. He introduced many common law features into the new-born Thai legal system. More and more legal scholars were trained in England and France and this led to a blend of the civil and common law practice as the Thai system evolved. Evidently, the law and the judicial structure are a civil system, but legal study is dominated by the study of legal cases rather than by an analysis into the will and *raison d'être* of the law. Current legal study is based on the case study of existing legal cases rather than legal philosophy and reasoning. Moreover, judicial practice also incorporates common law features by making reference to preceding cases as well as a reference to the corresponding articles or sections in the law book. Dr Surakiart Sathirathai mentioned in a lecture[12] that eventually the Thai legal system suffers from two rigidities: the rigidity of civil law in having codified law (the verdict must correspond with the law) and the rigidity of common law (the verdict of current case must followed the verdict of settled case given two cases are identical). Thus, the Thai legal system lacks two flexibilities: the flexibility of civil law in being interpreted to suit a current case and the flexibility of common law to investigate a substantially new case. These have become fundamental impediments to the development of the Thai legal system and legal enforcement.

Notwithstanding, since the pre-modernised era, Thai legal practices are closer to common law practices than civil law practices. This is due to the fact that the government system in the past, the *Sakdina*, relegated the discretionary power to make judgement to relatively superior persons (discussed later in Section 3.2). In the Thai context, superiority comprises relative seniority and higher social status (rank). Therefore, in practice, the judge

[12] The lecture was given when the author attended the class of Economics and the Law (EC315) at Thammasat University, Bangkok, Thailand. At that time, he was the lecturer at Chulalongkorn University, Bangkok, Thailand. Now, he is the Minister of Foreign Affair.

usually retains his/her own discretion on the interpretation of the law if there is conflict with existing verdicts by his/her superiors in similar cases.

Engel (1978) notes, in practice, that the traditional beliefs and customs, as well as the social structure, together with the ineffectiveness of modern enforcement (the authority has no experience on how to use the new law), considerably influences the outcome of the justice system. This helps many cases to be settled out of court. Mediation and negotiation using the social hierarchy and the patron-client relationship (see 3.2.1.) are effective.

Thai Business Laws

Thai business laws are relatively new and are essentially modified from western laws. In the past, before the reform, it could be said that business law was virtually non-existent. According to the traditional political regime, everything belonged to the king. All land was his Majesty's (Lingat, 1935). Personal properties could be retained in ones' possession but this was due to the mercy and benevolence of the king in allowing the people to do so. Property rights were regarded in that way rather than in the modern sense. Stealing is a sin according to Buddhism and the Thai law had a clause for the punishment of such crime. Enforcement was basically just for the people to maintain a decent living, not to accumulate wealth. However, property rights did not include protection from government expropriation. The king or the authorities had the right to confiscate property from people when they deemed it necessary, i.e. during wartime or famine. Moreover, as a part of the *Sakdina* system where the management and control of manpower was the crux,[13] people did not have the freedom to use their own labour. They had to contribute their labour and knowledge to a governmental task at least half a year every year, known as *corveé*.

In general, the definition and protection of property rights, in the modern sense, were virtually non-existent. Consequently, all other commercially related laws could not be enacted because of the lack of property rights. Expropriation by others was not uncommon and the benefit of any investment was not protected; hence, no personal investment and no firm could exist. Contracts were not common at the time, except for borrowing and slavery trade contracts (Lingat, 1935).

[13] This is in contrast with the Feudal system in Europe whereby the management and control the land and associated resources were fundamental.

The emergence of property rights protection came with the enactment of Land Law in the reign of King Chulalongkorn. Initially, it was not for the ordinary person but for the members of royal family to have land as their personal property (it must be remembered all lands belonged to the king).

Civil and Commercial Code

The first enactment of proper business law was the Civil and Commercial Code in 1923. There are several books in the Code, including property rights, debt, contract, and company law. It was a universal treatment as it incorporated civil matters and commercial matters into the same law. Most components in this Code were completely new compared to the traditional Thai law. New elements included property rights in the modern definition[14], contract law[15] dealing with property, and company law.[16] All of these laws were adapted from the western counterparts, including French, Swiss, Japanese, German, Italian, Belgium, Dutch, English and American law. Only laws about debt and contract were inherited from the traditional Thai law (Lingat, 1935).

Contract Law

Traditional Thai law recognised the contract as either the traditionally accepted performance by one part to another party due to social obligations and relationships, or the obligation to do some performance upon the transfer of the object or property (*contrat reel*) in which the trade is not of concern. Contract in this definition is not formed by the mutual consent of contracting parties. All contract related laws were for the purpose of helping community members rather than seeking a profit. Breach of contract was treated as tort; the breaching party must pay the remedy as well as suffer from the physical punishment or physical usage by a breached party. Since the reign of King Chulalongkorn, the most comprehensive commercially based contract law was the slavery trade contract law, which was abolished later in his reign. By the very end of the traditional law implementation, contract law regarding pawning was the most popular; the original will of pawning was again not commercial but to relieve misfortune or a short-term liquidity problem (Lingat, 1935).

Therefore, only laws on debt contract and contracts of the kinds mentioned above influenced the enactment of the civil and commercial code at that time. The remainder were all from various western laws. We can make the inference that Thai business and culture were not familiar with contract law in the modern sense.

[14] Civil and Commercial Code, Book 1, Form 3, Article 137-148 and Book 4, Article 1298-1434.
[15] Civil and Commercial Code, Book 3, Article 453-1011 (Form 1 – Form 21 inclusive).
[16] Civil and Commercial Code, Book 3, Form 22, Article 1012-1297.

Law on Debt

The law on borrowing is the only traditional law incorporated into the modern Thai legal system. However, the sense of 'indebtedness' in the past was different from the current one. Originally, indebtedness was due to a debtor's mishap or liquidity problem that needed the financial assistance from others such as creditors. Unlike nowadays, when borrowing is one way to finance investment or enterprise.

Lingat (1935) suggested that the borrowing contract at that time was the only real contract in the modern definition. It also has very similar features to a modern debt contract including interest charges and procedures when the debtor defaults. It was a contract in which both parties are obliged to perform tasks according to their rights and duties. Nevertheless, the traditional debt contract went further than the modern one in that the debtor was obliged to repay not only with his property but his physical ability. In the very extreme case, the debtor must sell himself as a slave and his earnings must be used to repay the debt for the creditor. He further analyses the literal meaning of creditor in Thai, *chao nee*. The word '*chao*' means 'highly superior' (used to address the monarch), implying the relatively higher social and economic status of creditors. In the original sense, it was because the debtor should demonstrate gratefulness to the creditor for helping him in a hard time.

The next most important borrowing activity in the past was pawning. The law governing pawning was equally developed. Many features of pawning were bequeathed into the enactment of the Code. Again the purpose of pawning was genuinely not for commercial purpose but to relieve people's hardship from relatively more economic superiors. However, in the late 19th and early 20th century, pawning became a lucrative business in the hands of Chinese businessmen. It remained a source for personal, not commercial, borrowing. The heavy exploitation of pawning by pawnshop-owners called for constant amendment during that period (Lingat, 1935).

Company Law

As the entity known as 'company' was unknown in Thai traditional law, no real company ever existed. Most companies in Thailand before the enactment of the Code were the offshore offices of foreign companies. Chinese overseas business in Thailand operated in a company-like organisation based on family ties called *gongxi*. Its functionality is similar to the company in the modern definition except it has incorporated business and personal relationships into one entity in which everything is structured according to the relationship within the Chinese family structure (described in further detail in the following section).

Only after the enactment of the Code are there clauses regarding the 'company' and this have remained in force until now. The law governing the public company was enacted separately less than two decades ago. It could be said that all elements of company-related clauses are adopted from various western laws. Thai company law usually has the protective requirement of dictating that 51 per cent, later 49 per cent, of shares must be held by Thai nationals. It can be presumed that this was implemented to prevent the dominant role by foreign companies and to help Thai nationals to learn from them too. In practice, it seems that the culture of 'connections' is dominating business practices in Thailand, even for many joint ventures with foreigners ('Yibpan,' 2002a, 2002b).

By and large, company legislation is somehow not directly compatible with the traditional Thai law and business practice dominated by Chinese culture. It is rather a new concept that has never been recognised in Thailand before. The process to accommodate company law is rather slow; basically implementation is just to comply with the requirement imposed by the law, while most solutions are achieved by resolution through connections.

Bankruptcy Law

Bankruptcy law is a special branch of law concerning default by a debtor. It is designed to handle the problem in which the debtor cannot afford to satisfy all his debts to his various creditors (his wealth is less than his debt obligations). If there were only one creditor, enforcement by clauses on debt in the Civil and Commercial Code could provide a satisfactory solution. Notwithstanding, when there is more than one creditor, some creditors could be unjustly treated, facing multiple defaults, because the creditor who exercise her rights (according to the Civil and Commercial Code) relatively early has more chance of being fully repaid than those who come later. The debtor can also strategically repay some creditors and default on others.

The first enactment of bankruptcy law was in 1908. Originally, it was aimed at dealing with personal bankruptcy, not corporate insolvency. Personal bankruptcy and corporate insolvency are two different but related concepts. The purpose of personal bankruptcy is to assist the person who has an extremely high debt burden, where his personal wealth cannot satisfy the total debt, by providing a 'new life' under predetermined procedures in order to allow the bankrupt to live in a humane fashion. Without personal bankruptcy law, a debt-ridden debtor could eventually fall into the oblivion of ever-increasing debt. Moreover, if the traditional Thai law were implemented, the debtor would be forced to sell himself as a slave to repay; hence, his life would be below any reasonable standard.

Corporate bankruptcy was incorporated in the 1940 enactment of the new Act. The only option of the procedure was the liquidation of the company if it became insolvent. The procedure, therefore, focused mainly on how the realisation of the process could be distributed among creditors in a just and efficient way. An alternative, reorganisation, was included in the

1998 amendment, primarily in the hope of helping to solve the economic crisis. This is the core of our research that will be discussed later in this thesis.

The development of bankruptcy law was somehow slow; its relative importance is also less significant. This is because the concept of bankruptcy – both personal and corporate – is not fully integrated and accredited into the Thai way of doing business nor is it compatible with the traditional Thai solution to debtor default.

According to Lingat's (1935) review of the traditional Thai law regarding debt, debt has an extended meaning (see above). Although the object of debt is pecuniary, the liability includes both pecuniary and physical repayment. Hence, it is a strict liability when engaged in the borrowing relationship. The debtor's responsibility is unlimited. Subsequently, the concept of granting a 'new life,' as the bankruptcy law dictates, was somewhat different. The debtor remains obliged to the debt until i) he died; ii) his creditor died; iii) a change of monarch; or iv) the case exceeds its enforceable period. In any of these circumstances, the debtor would be released from his liability.

We can see that traditional law is intended to discourage borrowing by labelling it as the choice only when there is a real hardship and imposing massive liability if one fails to repay. Note that borrowing was not for commercial purposes. Borrowing is also discouraged by Buddhism: anyone who wants to become a monk must be free from any debt obligation.[17] In this condition, bankruptcy is irrelevant, as it increases the attractiveness of borrowing. Only in one of the four above-mentioned circumstances would the debtor be discharged from the liability. These special occasions could be regarded as a traditional Thai bankruptcy procedure; but it was built into the law on debt, not as a separate procedure. It was based on a different concept. Bankruptcy law is examined in detail in Chapter 4 and Thai bankruptcy law is analysed in Chapter 5.

The traditional Thai legal system had no particular concern on commercial aspects. It was, instead, an instrument to control manpower, which, at that time, was a relatively scarce resource compared to land and others. Since no property right were enforced, all other economic activities seemed to be non-existent. Transactions were under a barter system and under the state control; production was for self-sufficientcy and as a part of the duty to serve the state – autarky. As a result, there was no company and no production for commercial purposes.

Most of the commercially related laws are adopted from western legal doctrines, initially from the civil law system of Belgium and France, and later from the common law system of England. The utilisation of the law is limited; it is evidently not fully compatible with the Thai

[17] The traditional law also dictates that if the creditor allows the debtor to enter the monkshood, the debt is no longer valid as the creditor is deemed to waive the debt (Lingat, 1935, p. 269).

culture and the Chinese-derived dominant business practices. Many business problems are solved without resort to law.

The development of Thai legal system, and the institution of law and enforcement, is, therefore, due to the external threat, not from the internal need to change. Consequently, the pace of development is somehow detached from the social, political, and economic situations in Thailand, at least at the beginning. Many rules of law and enforcement are not compatible with the traditional Thai practices. The development of economic related legislation was not synchronised with economic development. The rule of law relating to economic matters does not reflect economic expansion, and economic progress does not influence changes of law. In short, the early commercial legal reform was late by almost 70 years (the gap between the Bowring Treaty and the first enactment of Civil and Commercial Code); the major change in the economy had taken place and the absence of suitable legal support caused the alternative structure to be devised. After the Civil and Commercial Code, legal advancement kept up with the economy. But at the time the alternative structure was well received, hence the under-utilisation of the commercial laws. The under-utilisation caused slow progress in legal development and, not long afterwards, economic development outpaced the legal development.

By and large, legal and enforcement institutions, at least, provided the bottom line solution for businesses when all other private solutions failed. However, the more outdated these institutions, the less was their effectiveness. They need to be constantly updated and compatible with economic development. It is apparent that there is a close interaction between the behaviour of the firm and changes in the law.

3.2. Thai Firms and Thai Economy

This section reviews the evolution of the modern Thai firm along with the economic development of the Thai economy. Its evolution is dynamic and under constant change. At some point, the development was very rapid that it responded to the institutional environment that firms were operating in.

3.2.1. Background of the Thai Economy

At least before 1855, the Thai economy was predominantly self-sufficient and agrarian. Essentially, the economic problem was the scarcity of labour, not of natural resources. Natural resources in Thailand are abundant; it can be said that there are too many to be owned. With this prevailing fact, the institutional arrangement was devised; it was called '*sakdina*[18].'

Traditional Social Structure

Prior to adopting a modern way of doing business, Thailand was using the traditional system of *Sakdina*. *Sakdina* is an integrated system dictating every aspect of interactions – political, social, and economic. The core of the system is manpower. As a scarce resource, it must ensure that manpower is organised first before any other social functions to be performed. That is why every aspect of society is intertwined under *Sakdina*.

Basically, the system designates different social classes to members of society by assigning the amount of land to each class as the metaphor for relative power and rank (it is not necessary for each person to be responsible for the assigned amount of land). Although there is no clear distinction between each class, unlike the Indian caste system, one class can move up or down to another depending on individual qualities. Fundamentally, the relationship can be summarised between two classes: a relatively superior and a relatively inferior class. It is applied to any pair of classes in the society. The relationship is later tagged a 'patron-client' relationship. The relatively superiors (patrons) are bound to protect, and give the patronage to, relatively inferiors (clients). Clients have to reciprocate with obedience, respect, and compliance by serving the patrons with labour and skills for the assigned tasks – ranging from simple agricultural production to military service in wartime. This relationship benefits both sides and is the underlying bond buttressing the *Sakdina* system as a whole. In principle, everyone would ask oneself 'who is serving me' and 'who is to be served.'[19] Subsequently, this awareness preoccupied the mind of the people and allowed them no time to concern about themselves. They were also tied and restrained within their home area. In order to achieve an accurate account of labour at all time, no free movement of labour was permitted.

The reciprocity between any two classes is applied throughout the structure. Each class has the responsibility to serve the relatively more superior classes and deserves to be served by the relatively inferior classes all the time. Transactions and relationships are, therefore, vertical. This coincides with, and could resemble, the characteristics of Thai personal relationships with a strong sense of kinship. There is a complex way of establishing a relationship by addressing each other with terms used within a family, even though they are non-relatives (Engel, 1978). This

[18] Also known as *Saktina* (Reynolds, 1987).

[19] Except slaves whom no one else serves them and the King who serves no body.

characteristic continues to today. Thai people avoid addressing a stranger by name or using a pronoun like 'I' or 'you' but they will try to associate that person as a family member.[20] This will reduce the feeling of being 'distanced' if 'I' and 'you' are used and strengthen the bonding between the two unknowns. It also indicates that the vertical relationship is predominant in Thai society. In other words, the peer relationship rarely exists.

On the top of the structure was the king who retained the supreme deity. The king was the sole possessor of everything – land, resources, and human subjects included. No private property exists in theory; nonetheless, this was accepted as the king's patronage for his subjects – letting them own something in order to live decent lives. This implied everything was centralised under the kingship. At the bottom, the laypersons – *phrai* – were subject to the *corvée* or 6-month annual government service (basically their labour) (Pongpaichit and Baker, 1995). No one, then, zealously pursued an individual economic goal. Production was for self-sufficiency and to serve superiors. Trade was under the barter system. Currency was somewhat insignificant (Price Damrong, 1946).

External trade was not a part of the system; it was solely controlled by the Royal Treasury and the Royal Warehouse (Pongpaichit and Baker, 1995, Akira, 1996). Conventionally, foreign trade was on a diminutive scale, compared with other activities. Usually it was made regional and with China. Ordinary people had no role in international trade. People were limited to the local social responsibilities which deterred trade, even on a regional scale, let alone at international level.

Generally, economic institutions did not exist. They were absorbed as part of the integrated system and a myriad of social functions was centralised under this relationship. No distinction exists between personal and economic relationships under this system. In some transactions, there was ambiguity between the economic or the personal.

Economy in Transition: Arrival of Key Player

The transition of the Thai economy into the modern developing economy started in 1855 when Thailand (then Siam) signed the Bowring Treaty to allow international free trade and implemented the uniform tariff collection (Prokati, 2003; Bualek, 2003). The increase in foreign

[20] For instance, if the stranger looks younger than the author, I might choose to call him/her as '*Nong*' (younger brother/sister); if the person is of the same age as the author's parent, I might call him/her as '*Loong/Pad*' (uncle/aunt).

demand for Thai products caused a continuous and gradual shift from production for self-sufficient into production for trade. The products were rice, teak, rubber, tin, and various oriental exotics (Pongpaichit and Baker, 1995; Akira, 1996; Bualek, 2003). It is noticeable that these products are primitive and raw, requiring no extensive production technique. At the same time, there was an increase in the import of industrial products like textiles and garments which were becoming considerably cheaper. Such imports undermined local industries in Thailand which were producing handmade products basically for self-sufficiency. Thai people were decided to quit local handicrafts and industries to work in rice cultivation; they preferred to receive payments for their rice and use the money to buy clothes. This started the escalating role of an exchange economy (Akira, 1996).

Initially, the government (the king) remained the sole trader with foreign countries. Later on, due to the increasing volume of trade, the government could not handle all transactions. Then, foreign traders were allowed to trade and set up their affiliates in Thailand. The expansion let more Thais become associated with the exchange economy and production for export. This circumstance put an enormous pressure onto the *Sakdina* system. Instead of performing their annual government service, many decided to opt out and pay tax in order to gain an exemption. The government's grip on the control of labour was loosening and an insufficient labour supply for government tasks ensued. The government, subsequently, used foreign labour, primarily Chinese. The labour supply of Chinese migrants was abundant due to famine and overpopulation in China as well as to political unrest. Although the immigration of Chinese was gradual from the time of the Ayudhaya era, the shortage of labour caused an influx from the nineteenth century onwards.

Noticeable was the inconsistency of the system and economic advancement. The System could not cope with progress in the economy. During that time, there was, however, an evolution of an alternative economic institution in the hand of overseas Chinese which is discussed below.

The pressure on the System coincided with the initiation of reform. Eventually, with the enactment of several modern laws, the *Sakdina* was no longer a governing body of the Thai society. The passing of the Civil and Commercial Code in 1923 marked a significant legal change for economic related activities in particular. Private property was recognised and so was the business company. Even though the laws had changed, the old values had not. Traditional concepts persist, even today (Engel, 1978). The interaction between the modernised social orders and Thai traditional values, particularly the long life *Sakdina*, has continued to shape the unique Thai ways of business-doing.

Coping with the Changing World

In the past, *Sakdina* worked well in holding the labour force together. It diminished the incentive for people to pursue individual goals while promoting collective action. The ruling class enjoyed an ensured supply of workforce from and production by the ruled class. In return, the ruled class were protected from being enslaved by other competing rulers (who were seeking manpower themselves) and benefited from the safety of their lives and families.

Even before the Bowring Treaty, there was increasing foreign demand for products from the orient from the western superpowers in the wake of their industrial revolution and colonialism. Thailand was involved more and more in foreign trade like never before. But this tremendous increase in foreign trade and foreign demand after the Bowring Treaty undermined the existing structure and stretched it to the limit. Although the economic pressure was immense, the threat of invasion and colonisation was far greater and became the driving force behind the modernisation of the country. The structure of *Sakdina* was deemed to be abandoned and replaced with a 'civilised' administrative system recognised by the West.

3.2.2. Evolution of Modern Thai Firm

Legally, the existence of the company or the firm in the current definition and context was formally ratified after the enactment of the Civil and Commercial Code in 1923. Prior to that, the establishment of the firm was governed by separated laws which were enacted in passive response to trade expansion. In particular the need to allow foreign affiliates, as well as some brand new businesses (rice importing/exporting, banking, and insurance, for instance) to be incorporated in Thailand. There was no systematic change of the whole system, particularly not in a modern meaning nor in the protection of property rights. In other words, ambiguity permeated on every aspect of modern business in Thailand before the passing of the Civil and Commercial Code. This section examines and analyses how the Thai firm or the Thai company evolved by looking at the institutional environment companies were in.

Legal Influence on the Development of Thai Firm

It was a strong belief among Thai elites that the law is the machinery by which to achieve social order and social change (Engel, 1978). Hence, the initiation of any social change would result in the enactment of new law. However, it is worth noting that, by the time the reforms began, economic development had been progressing for quite some time. The time lapse between the Bowring Treaty and the enactment of the Civil and Commercial Code is a striking 68 years. It was the law chasing the economy, in contrast with other aspects of the society.

The mismatch between existing law and economic advance called for an alternative to facilitate business where overseas Chinese were at the core. Considering the institutional environment, Thai governments were always sceptical towards and discriminating against Chinese. Therefore, the traditional law dictated many reserved occupations for Thais, including farmer and, surprisingly, barbers. The Chinese were earmarked to supply only labour. They were not accepted as part of the social structure.

In the wake of economic expansion, the Chinese saw opportunities for a better life. They started to trade because they were not restricted by the structure of *Sakdina.* They could roam wherever they liked as long as the government was informed of their whereabouts. Trade on a considerable scale resulted as they travelled up and down the country. Thais began to experience the exchange economy. Meanwhile, most Thais were still attached to the *Sakdina* structure. They were increasingly drawn into rice plantation and opted out of government service by paying a waiver fee[21]. Thais exhibited no interest in trading because it was foreign to their cultural heritage.[22]

In addition, due to poor transportation and communication, the government was unable to reach every area of the country to collect its revenue. To overcome this, the government auctioned off rights or concessions to collect tax and other revenues on its behalf. These revenues were from various kinds of taxes and fees on the brewery, gambling, payment for corvée waiving, lotteries, and the opium trade as well as other excise taxes (Reynolds, 1987). A majority of concessionary tax collectors, so-called tax farmers, were Chinese (Bualek, 2003). The concessionaire of tax collection was an annex to *Sakdina* in order to relieve its fiscal inefficiency.

[21] The fee to waive the 6 month compulsory government service is called '*Rajchupakarn*.' This literally means 'supporting the king' (Reynolds, 1987).

At the same time, it allowed Chinese immigrants to be drawn into the structure as never before – many tax farmers were ennobled as if they were government officers (Bualek, 2003).

Not before long, rice became Thailand's chief export. Rice plantation flourished and a majority of Thais became rice farmers (Pongpaichit and Baker, 1995). At the same time, the overseas Chinese gained more momentum in the business world. They were involved in every dimension of trade related with rice: as middlemen for the domestic rice trade, in rice mills, and rice trading houses, as rice exporters, compradors[23] and brokers for foreign companies. They also extended into banking, insurance, and shipping (Bualek, 2003).

This rapid expansion and control of business by Chinese was observed. This did not conform to normal Thai trends. In the rice business, rice plantation was 99 per cent in Thai hands while all rice related businesses were 99 per cent in Chinese hands (Bualek, 2003). Although their role was significant, Thai governments remained sceptical. Chinese rights were obviously inferiors to Thais, but not their wealth, of course.

Early Form of Organisation

A 'company' typically owned by Chinese before the Civil and Commercial Code was firstly in the form of a family business inherited from the Chinese tradition called *gongxi* or *guanxi*[24] (Hill, 2003). This was the initial institutional response to the absence of private property protection and company law. The company and the family mirrored each other: family is business and business is family. It was ideally suited to the institutional environment at the time because family members were employees, so there was no need to employ outsiders. Family, of course, could be trusted. Members pursued more or less the same goal. The choice of job was limited, as a result of reserved occupation policy. The Chinese had limited choices. Many started their lives in Thailand as labourers; once they had enough savings, they moved into trade. Some of them worked as middlemen in rice trading and some also extended their businesses as compradors and brokers for foreign businesses, including banking, insurance, and shipping (Bualek, 2003).

[22] Although Thais were not prohibited from trading (of course, many did the trade locally), trade on a regional and national scale was somehow discouraged as free labour movement was not allowed.
[23] Compradors or Compradores (originally Portugese word) are the native born agents in Asian countries employed by a foreign business to serve as a collaborator or intermediary in commercial transactions.
[24] *Guanxi* literally means 'relationships,' although in business settings it can be better understood as 'connections' (Hill, 2003)

The association of the Chinese with Thai governments, initially in concessionary tax farming, started to gain momentum. As they were treated as inferior (less protection) to Thais and were not part of the indigenous social structure, they sought protection by financially or economically supporting government officers, high ranking officials, and members of the royal family. To the laypersons' eyes, this was bribery. We, however, may consider it as a compliment showing respect and obedience (socially) or as signalling – providing more information about themselves – loyal submission to the ruling class (economically). Thai governments, in return, learned their intentions and would give them special treatment and protection. Interestingly, this practice coincides with Thai culture under the *Sakdina* and the patron-client relationship where inferiors served superiors. It could be said that Chinese imitated Thais by their association with the superstructure. Simultaneously, Chinese tax farmers, having obtained protection, started to exploit the government by siphoning government tax revenue within their control to strengthen their own businesses (Bualek, 2003). At the same time, the economic expropriation from Chinese was evident by Thai authorities at their discretion, primarily for personal perquisite of the personnel in charge.

Moreover, the Chinese were reinforcing their presence and protecting their interests by means of associations and chambers of commerce. This is very similar to western guilds. Bualek (2003) revealed that associations were crucial to the survival of Chinese businesses in Thailand. Associations supported their members in various aspects: business and social as well as with dispute settlement within and between associations. There is an interesting report of one member facing bankruptcy and the association helped him to reach a composition agreement with his creditors and advanced him money to repay some of his debts. However, Chinese associations also undermined competition and promoted monopoly. Thai governments were concerned about their roles and tried to control their activities.

Finally, it is worth noting that, not only was the Thai government sceptical towards the Chinese, the Thai people held a negative attitude towards them. The Chinese, not being part of the social structure, were more attached to their homeland than Thailand. Their social response was interesting. Intermarriage among local born Chinese was one interesting characteristic. The early generation Chinese immigrants usually married Thai women; however, they preferred their offspring to marry other local born Chinese. This practice can be observed even now, though on a much lesser scale. It effectively boosted the connections among Chinese and strengthened their business position: securing their wealth, expanding their businesses, and reinforcing each other in a hostile legal environment imposed on them. Between two families, marriage is regarded as a reciprocity that benefits both of them. Connections from intermarriage are extensive and complex. Akira (1996), Chulapongsathorn (2002), and Bualek (2003) elaborate these connections in detail. Their studies reveal that, through intermarriage, the majority of major businesses in Thailand are in the hands of only a few dozen dominant Chinese clans. Their dominance persists today (Akira, 1996; Chulapongsathorn, 2002).

At this stage, the organisational form was based on the family, the extension of the family through intermarriage, and interconnection with other businesses through associations. This was the institutional arrangement envisaged to counteract the hostile institutional environment of Chinese scepticism imposed by Thai governments and the Thai people in general. Its implications were dramatic. Capital accumulation was in the hand of Chinese. Although they needed to reinvest their returns into their businesses, some portion of them was transferred to the ruling elites under the patron-client relationship to gain protection while some was transferred back to their families in China. The transfer is counterproductive and contributes nothing to the Thai economy (Akira, 1996). However, this is evidence of the segregation between the Chinese in Thailand and the Thai people.

Under the contradictory interests between the Chinese in Thailand and Thai people, Chinese businesses started to put roots down into the Thai social structure via the patron-client relationship particularly with Thai elites. Chinese businesses became honey pots for these elites to extract rent and then provide decent protection in return.

Enactment of the Civil and Commercial Code and the 1932 Revolution

In the absence of company law, the Thai government used the issuance of Royal Chartered Companies between 1888 and 1912 whereby the government granted the permission and rights to operate a business to a particular group of persons, mainly foreign companies. For the first time, pressure from economic expansion forced the Thai government to pass the law controlling the company. This was the Royal Act for Limited Companies and Limited Partnership 1911, effective since 1912 (Akira, 1996). These were passive responses to the economic advancement that the Thai administration wished to encourage.

This law allowed the company to be legally acknowledged by the State and gave more freedom to establish a company, instead of acquiring a Royal Charter. Indeed, Chinese businesses benefited from this Act and so did the foreign affiliates of western companies. The systematic discrepancy of the laws was observed: the company law was in place but the fundamental property rights of people were not officially recognised.

When the exchange economy became apparent and the modernisation in the legal system attempted to manage the change, the result was the enactment of the Civil and Commercial Code in 1923; 68 years after the country first experienced the exchange economy. The Law, for the first time, entrusted property rights to ordinary people as well as accepting various aspects of economic activities, company and contract included. This further supported businesses in Thailand for those already established and for newcomers.

Furthermore, just a decade after the passing of this Law, there came the revolution in 1932 to overthrow the 'absolute monarchy' and adopt a 'constitutional monarchy.' There was an extensive change in administrative structures to accommodate the new regime. However, to a certain extent, the modernisation had paved the way for the new regime. Most of the administration tasks operated as normal. The revolution just changed the very top of the structure.

In the wake of change, there was a problem of law enforcement. Even though many laws had been passed and implemented, actual enforcement was weak because the enforcing authorities were not experienced and remained influenced by practices of the old regime. To make matters worse, after the 1932 Revolution, there were many incidences of power struggles between key players, mainly military personnel. This led to constant political instability, swift change of the government, and the *coup d'état* or the so-called 'vicious cycle' whereby the democratically elected government was overthrown by the military. The country came under military rule for a while; then, there was a popular uprising before a general election which led to a newly elected government to manage the country, and the whole cycle started again. On average, the cycle recurs every 2 or 3 years. The last one was in 1997. This characterises the political regime in Thailand as a mixture between democracy and a military junta.

An Emergence of a Formal Company

The Civil and Commercial Code ratifies property rights and enforcement as well as company and contract law. This stabilised the Chinese businesses in Thailand. It also did encourage more Thais to establish their own firms. Thailand, hence, has been reconsidered by the Chinese overseas as their stronghold rather than a temporary 'goldmine' to accumulate wealth.

The political instability did impair the law and enforcement. The military junta had the *de facto* effective control of it. It was normal when they exercised the power at their discretion that they frequently ignored rule of laws and enforcement standards. This put Chinese businesses in danger of expropriation. Therefore, Chinese companies thought it necessary to offer pecuniary and in-kind benefits to those in power. The situation replicated what they have done earlier in the time of absolute monarchy. They just changed their 'patrons' from the ruling elites comprising of the royal family and officers to the ruling military juntas seats in the government. It could be said that the transformation from one political regime to another, from the business perspective, was rather seamless. Business people knew what to do and how to do it.

Chinese businesses very soon reinforced their relationship with military leaders under the same patron-client relationship. What was slightly different was this relationship was more universal and general. Due to the frequent switches of power, businesspersons established linkage to all the power factions. During this period, the connections between business and military had been strengthened and expanded. Most top companies in Thailand had offered the military personnel managerial places as well as shares in their companies (Akira, 1996). The extensive network of connections between businesses and military remains effective to this day, although its importance is gradually reducing.

We may conclude that the patron-client relationship has evolved into a rent-seeking activity of both parties at the expense of the whole Thai economy. On one side, the military has little incentive to be out of politics. They try to create political instability in order to make businesses insecure and extract rents from business. On another, businessmen themselves seek favourable treatment from the military junta and then extract rents through such favourable protection.

This is the structure that evolved as the alternative to the market mechanism where conditions in the market are not favourable: ineffective protection of property rights and depressing government policies. This situation is long lasting because the institutional environment remained relatively hostile. The scepticism of Chinese dominance in the Thai economy has been continuous since the beginning, through the period of modernisation, through the revolution and military juntas, through the nationalism period – before and after the Second World War, until late 1950s. For instance, King Vajiravudh (1910-1925, a successor to King Chulalongkorn) has openly criticised Chinese business people and labelled them as 'Jews of the East.' Similarly, Field Marshal Luang Pibulsongkram, the Prime Minister during the nationalism era had devised many state enterprises to fight against Chinese dominance (Akira, 1996; Bualek, 2003).

Absorption into the Thai Society

Although the harsh environment made overseas Chinese and local born Chinese insecure, they have been gradually absorbed into the Thai society peacefully, unlike the sectarian treatment of the Chinese by the indigenous people in neighbouring countries which still lasts today, for example, in Malaysia, Indonesia, Cambodia and Laos. Some studies (for example, Bualek (2003)) suggest that the peaceful absorption was a result of harsh policies which undermined Chinese culture in Thailand. It is probable that the achievement was a combination of the ingenious policy implementation and external circumstances affecting the beliefs of Chinese and local born Chinese. First, the policy of a national educational curriculum forced all schools to use the same curriculum without forcing Chinese to close. This policy affected every kind of school, including both Chinese and Christian schools, without discrimination. Moreover, the policy granting Thai nationality automatically to local born Chinese and the policy permitting Chinese to use Thai surnames, assisted this unification process. The external factor had an impact on attitudes. Chinese felt more detached from their homeland when the Communist party took the control of China in 1949 because the uncertainty in China became much greater than in Thailand (despite the Thai scepticism). Under the Communist regime, they were afraid that they might lose their property. Thus, Thailand was a relatively safe haven for lives and business.

Consequently, the split between the Thai and Chinese became less apparent. In fact, intermarriage between the Chinese and Thais is increasing as marriage among the Chinese is now less widespread. Many discriminatory treatments against the Chinese have been dropped. The Chinese have also relinquished many of their practices that adversely affected the Thai economy. For instance, the transfer of money to China has been drastically reduced. However, business practice under the patron-client relationship is still widely accepted. It dominates the arm-length, purely market, relationship.

3.2.3. The Character of the Thai Firm

A Thai firm has a unique character. It is the product of a long development, emerging from the response to economic expansion, a lack of encouraging law and enforcement, and insufficient interest among the indigenous Thais in modern business practices. Its evolution is shaped by laws and enforcement, and the lack thereof. The typical Thai firm has the following noteworthy features.

Ownership and Control

Ownership is formed around members of a family or related group of families who are interconnected through intermarriage, friendship, or partnership. Incorporation of company due to friendship and partnership is much rarer than among members of a family. Even in publicly held companies, the majority of shares is retained with in the family or allied families. This characteristic is robust and persistent. Despite the fact that the law governing public company requires the dispersion of stock to the public, the founding family of a particular company usually distributes stocks among family members, just to meet the legal requirement[25] (Alba, Claessens, and Djankov, 1998).

Moreover, a portion of a company's shares, complimentary ones, are offered to 'influential' persons. Such as Prime Minister, Ministers, and Members of Parliament, nobles, descendants of royal family, elite classes, famous statesmen, high-ranking government officials and military personnel[26] who may have discretionary authority to benefit or damage the company. This hold particular true for those whose work is concerned with the company business (Akira, 1996; Chulapongsathorn, 2002).

Analogous to ownership, managerial positions in Thai firms are confined within family members who also company shareholders. Most outsiders, including 'influential' persons, have non-managerial positions on the board of director as allocated to them.

Concentrated ownership and managerial positions indicate the insufficient protection of property rights and an imminent threat of expropriation. It is easier to lose control of a company if shareholding is dispersed and the board of director is comprised of different groups of people for such a company would be more prone to the influence of 'influential' persons.

The perception of the company is unique. Due to the dominating Chinese axiom of 'company is family, family is company,' the owner or the owning family has a strong possessive feeling toward the company. This also prevents the dispersal of shares and managerial posts within the company.

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[25] Almost all companies from the dataset used in the empirical analysis exhibit this pattern.

[26] Majority of the collected sample used in the empirical analysis (see Chapter 7) have this kind of shareholders.

Contractual Relationships within Firm and Corporate Governance

Inside the company where most managerial positions belong to the family members, relationships between them would be influenced by personal relationships, instead of contractual ones. Contractual relationships, however, exist among outside employees who do not belong to the family. Usually are non-managerial employees and labourers. With this structure, there are some interesting implications:

i) There is a high probability that all family members have the same objective for the company. Therefore, conflicts of interest will be minimised as all problems will be internalised.

ii) However, there is nothing to ensure that everybody in the same family has the same objective. One deviant could impair the control of the company and its managerial stability. This deviation could not be easily corrected because the family relationship would prevent the use of swift and strong corrective measures. Unlike a company with no personal link, the employer or manager could punish, relocate, or fire the employee with low performance or who does not comply with the company's directives. When there is a deviation, the concentration of ownership and management reduces the effectiveness of corporate governance.

iii) Moreover, personal or family relationships may cause a mismatch with hierarchical control in the company. For example, a father or mother will always forgive the child for any wrongdoing which makes the company rules inoperative or if the child has a higher position in the company than the parents for (s)he would be reluctant to give the parent orders.

iv) As the top management positions are earmarked for family members, outsider employees are discouraged from being fully efficient. They know, *a priori*, that their career paths are curtailed. This can adversely affect the performance of the company.

Nonetheless, the high concentration of ownership and control diminishes the possibility of takeovers or competition for managerial positions which could eventually lead to complacency and an insufficient incentive to improve. Notably, this characteristic of Thai firms relies very much on the honesty and unity among the family members as well as on individual dignity for survival. A family where the objective of its members has been diversified and is disunited will encounter a crisis in its corporate governance.

Finance

Given the structure of ownership and control, a quick deduction that the financing method is predominantly internal can be made. Financing would use the retaining profit from the operation to reinvest within the company. The increase in registered capital is usually obtained via additional funding from new investment by known investors with existing connections to the firm rather than by raising funds publicly by issuing new equities.

External finance inclines towards debt financing (Alba, Claessens, and Djankov, 1998). Equity financing is not favourable due to involvement in the company's management by shareholders. This is the reason for the underdevelopment of the capital market and the limited company listing on the stock market. The situation of the stock market in Thailand is similar to what Jensen and Meckling (1976) described when the owner sells part of the company stock to the public, while retaining the control. Eventually the stock price is depressed. Debt financing is more attractive from the owner's perspective given this corporate structure. Borrowing, however, could be from various sources, not necessarily from financial institutions. It could be funded by the circle of kinship, friends, formal and informal associations. The network of connections does matter in the borrowing. The more connections there are, the greater possibility of obtaining a loan. And the decision to lend is not completely based on a credit evaluation or assessment but on which connections and associations of the potential borrower.[27] A detailed discussion of the borrowing relationship in Thai business is in Chapter 6.

This pattern of financing has an interesting implication. It causes a restricted funding opportunity: i) limited internal financing, ii) adverse impact on stock price on equity financing (Jensen and Meckling, 1976), iii) constrained borrowing due to collateral and credit rationing. There is evidence that a typical business, once expanded to a certain level of wealth, will attempt to establish itself as a commercial bank or some other kind of financial institution ('Yibpan,' 2002a, 2002b; Akira, 1996). In other word, the establishment of a commercial bank or a financial institution is the way to raise a large amount of money from people's deposits. Most of the wealthiest and prolific business families have their own banks and/or other financial institutions (Akira, 1996).

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[27] *Greedy in Thailand*, by Pascal Vasselin (2002), a documentary featured in BBC Storyville,
More information: http://www.bbc.co.uk/bbcfour/documentaries/storyville/greedy_in_thailand.shtml

Investment

Those who could obtain a ready source of financing by establishing financial institutions would expand their businesses in the pattern of the so-called 'tripod' principle whereby the business empire is forming first as a trader or middleman, then expanding into the financial sector, and entering to the manufacturing sector (or expanding into the manufacturing sector, and later entering the financial sector) ('Yibpan,' 2002a, 2002b). This is the main direction of investment for the Thai conglomerates that consist of 21 big groups (or, to be precise, families).

It is worth noting that banking is lucrative business. The Thai government has implicitly guaranteed individual depositors (non-business bank customers), at least their principal, if not interest. In agency terms, the guarantee reduces the depositors' incentive to monitor banks. Consequently, banks are becoming less careful in offering credit facilities to various businesses and the likelihood of banks to lend money to high risk-high return projects increases. Nevertheless, this helps lending and borrowing of groups and families with good interconnections to flourish.

The investment pattern for the others will be limited to their original nature of business. It could be horizontal as well as vertical expansion but the credit sought will be constrained by debt financing. Businesses with good connections are in an advantageous position to obtain finance. This constraint somehow forces some entrepreneurs to become involved with high-risk, high-return investments (including gambling and speculation in the stock market) in order to acquire additional returns to invest in their companies or repay debt.

Network of Connections, Political Involvement, and Interaction with Law

In almost every transaction within the Thai economy, there is always the involvement of connections between interacting parties. As mentioned earlier, these networks of connections were established as a response to the hostile institutional environment for expatriate Chinese to run their businesses. Surprisingly, this is highly compatible with the Thai sense of kinship that fosters the spread of business connections along personal linkages. It is also compatible with the reciprocal patron-client relationship which makes business connections so important and widely accepted.

Because it is established from the intertwining between personal and economic interests at the same time, a connection could not be split into a purely personal or a purely economic one. It is a very useful tool for conflict mediation, dispute negotiation, and resolution in both respects. Engel (1978) states that the personal relationship, as well as the patron-client relationship, assists disputants to reach a solution without resorting to the legal system. If there is a court case, it could help to resolve the legal battle faster.

Connections do extend into the executive levels of government, regardless of the system. With connections and reciprocity under the patron-client system, businesspersons can influence the administration to change the law, or sometimes circumvent the law, to benefit themselves one way or another. There is plenty of evidence on this practice, ranging from helping a certain company to win a government contract to amending the law to favour some particular business groups. Even during the absolute monarchy, for example, the founder of the famous beer brewery influenced King Prachadipok to reduce the tax for his brewery while raising the tariff and excise tax for imported beer as well as negotiating a loan from the King (Chulabhongsadhorn, 2002).

3.3. Concluding Remarks

The chapter has extensively reviewed the historical aspect of the legal system and the evolution of the modern company in Thailand. There is interaction between legal constraints and the economic response plays the central role in shaping the characteristics of Thai firms nowadays. We discover and reveal that the law (and the lack of) and enforcement (and the lack of) have influences on how modern Thai firms have evolved. A pressure to rapidly reform the legal system produced undesirable weaknesses in law and enforcement. Meanwhile business had developed much faster than the law causing a mismatch. Lack of proper property rights protection, subsequently, caused market imperfection. An alternative trade practice through family bond, personal linkage, and networks of connections was devised to overcome such imperfection. Thai firms are operating under the market mechanism as well as the non-market alternative of connections. This means a typical business transaction takes place in a less-than-arm's-length fashion and the decision making on business transactions is based on the market (i.e., price) and non-market factors. Legal formality is usually avoided, while trust and reputation are essential.

One of the interesting implications is that many economic problems are solved by this 'less-than-arm's-length' relationship rather than resorting to formal legal procedures because it is relatively more effective, less costly, and not subject to the ambiguity of law and enforcement. Although this fact may sound against the market mechanism and general perception in economics, we should understand that market imperfection was initially caused by the weakness in law and protection of property rights which impair market functionality. This informal relationship was created to surpass the friction caused by such weaknesses. It is worth noting that when this thesis considers the bankruptcy problem later on, this network of connections can provide the channel for negotiation in bankruptcy and reorganisation disputes.

Chapter 4
Economics of Corporate Bankruptcy

This chapter provides general conceptualisation of bankruptcy law from an economics' point of view. A problem of insolvency is a special occurrence arising from engagement in debt contract. It has been proven that insolvency procedure is irrelevant as long as debtor's assets exceed its liability – which means he can still service his debt burden. All rights and entitlements related to debt contract are hold and enforceable. We further show that even though the debtor is insolvent, as long as there is only one creditor having a claim against him, existing claims, rights, and entitlements are still valid for efficient solution. The real problem of insolvency materialises when there are more then one creditor since unilateral enforcement of existing rights is apparently destructive and economically inefficient. We show it is essential to introduce an additional set of legal rights and entitlements in order to achieve efficient solution by collective means. Main objectives of bankruptcy law are discussed. Later in the Chapter, some conceptual models of economically efficient bankruptcy law are reviewed. Efficient bankruptcy procedures are examined at the end of the Chapter.

4.1. Hypothetical Debt Contract

This section provides the basis for further analysis on the lending borrowing relationship. A basic hypothetical framework is analysed to capture essential features of the relationship between a creditor and a debtor. Throughout this chapter, the creditor is feminine and the debtor is masculine.

4.1.1. Economic and Legal Setup

A simply debtor contract is binding a lender or a creditor with a borrower or a debtor whereby the lender agrees to lend a certain amount of money to the borrower. After a pre-specified period has been lapsed, the borrower agrees to pay the same amount of money plus interest back (reflecting the opportunity cost of money) to the lender. In the event of debtor's default – a failure to payback – the law entitles the creditor to seize or repossess the debtor's property, then, resale it, and obtain the realisation from that sale to satisfy the unpaid debt. In other words, when the debtor fails to repay, the creditor legally becomes the owner of the debtor's asset up to the value of the unpaid debt. Without any legal entitlement, the creditor can only use physical force to make the debtor pays.

It is worth noting that the exercise of legal entitlement given by law is optional (meanwhile the entitlement itself is automatically provided), depending on whether the creditor wants to use it in the event of default. The law does not force the creditor to use this particular provision. The creditor retains the right and preference to choose any other private method dealing with unpaid debtor. A crucial point is using legal procedure ensures the legal protection throughout but using private solution offers no protection. However, the creditor, when needed, can always revert to use the formal legal procedure as a last resort.

The setup of our hypothetical lending-borrowing relationship is as follow. There are two players: a debtor, *D*, and a creditor, *C*. At the beginning of a specific timeframe, $t - 1$, *C* lends the amount B_t to *D* at the interest rate of i for one period. At the end of the period, t, *D* agrees to pay *C* back $B_t(1 + i)$, i.e., principal plus interest. If the debtor defaults, the creditor has to decide whether to liquidate the debtor immediately (exercise the legal right) or allow the debtor to continue for another period (do not exercise the legal right, i.e. private workout).

Creditor

At Time $t - 1$, *C* has to decide whether to lend an amount of B_t to *D* and earn interest at the rate of i, $B_t(1 + i)$ at t. *C* has a risk-free alternative that give her an interest rate of r_f; hence, at the end of the same period, *C* will get $B_t(1 + r_f)$.

Associated with a loan, *C* can exert the monitoring effort μ on *D*. The monitoring effort has a cost of $c(\mu)$. Monitoring cannot be verifiable (hence cannot be contracted on) but observable by creditor and debtor. This monitoring attempt influences the level of debtor's diligence or effort during the project (described below). *C* cannot learn what kind of debtor she is dealing with. *C* will expect this response at the time of lending decision.

Debtor and Investment Opportunity

D is assumed to possess a certain level of wealth L_{t-1} and no prior debt. L_{t-1} could be regard as an asset – liquid or illiquid (e.g., essential machinery for production). Assume further that L_{t-1} is indivisible whereby if the debtor should be liquidated at Time t to satisfy any previous obligation, B_{t-1}, the remainder of realisation less the previous obligation, $L_{t-1} - B_{t-1}$, prohibits D to continue the business. In other words, L_{t-1} is an absolute minimum for D to be in business. However, L_{t-1} is defined to be a market value of such wealth; the actual value to D may exceed that – says, V_{t-1}. The difference between V_{t-1} and L_{t-1} indicates the degree of indivisibility or specialisation of that asset to D. Higher asset specificity of D's operation implies a higher difference between V_{t-1} and L_{t-1}. If D were to be liquidated, the realisation would be only L_{t-1}.

L_{t-1} will be working with a new loan B_t in a project under D's management. The value-added of the project, V, is the value added. The market value of the company at the end of the period is defined as

$$L_t = L_{t-1} + B_t + V. \tag{4.1}$$

The value added is ranging between a maximum possible of V_h and a minimum possible of V_l depending on the effort e exerted by D and the nature of the investment itself. It is assumed that $V_h \gg 0$ and either $V_h > V_l \geq 0$ or $V_h > 0 > V_l$. The probability of achieving a particular V is function of the effort e. Defining $p(e)$ as the probability of achieving V_h given e. Thus, $1 - p(e)$ is the probability of achieving V_l given e. We assume that the effort can be range from negative to positive, $-\infty < e < +\infty$. If e approaches $+\infty$, V will approach V_h and if e approaches $-\infty$, V will approach V_l.

The expected value added is $p(e)V_h + (1 - p(e))V_l$. Define ΔV as $V_h - V_l$, the expected value added given e can be rewritten as: $V_l + \Delta V p(e)$.

Thus (4.1) equals

$$L_t = L_{t-1} + B_t + V_l + \Delta V p(e). \tag{4.2}$$

The effort of D, e, can be either positive or negative. Positive effort increases the value added while negative effort decreases the value added. Zero effort adds nothing. With the notation of (4.2), the most negative effort will cause ΔV to be zero since $p(e) = 0$; hence, V_l is attained. The most positive effort will cause $\Delta Vp(e)$ to be maximised, since $p(e) = 1$; thus V_h is attained. For zero effort, it depends on V_l. If V_l is negative, we assume that $p(e)$ will be the one that make ΔV equals to a positive value of V_l such that $V_l + \Delta Vp(e) = 0$. When $V_l \geq 0$, we assume that zero effort will add nothing to the value added, i.e. $\Delta V = 0$. The difference of possible value added indicates the degree of uncertainty. It also reflects the responsiveness of value-added to the debtor's effort. Higher difference between V_h and V_l means high uncertainty and higher responsiveness of value-added to the debtor's effort – a little change in the effort causes a large change in the value added. On the other hands, if V_h and V_l are very close to each other, it implies that the debtor needs not to do much to bring up the value of his venture. Relationship between effort and value added needs not to be linear; also it may or may not be subject to the law of diminishing marginal value added as shown (see Figure 4.1).

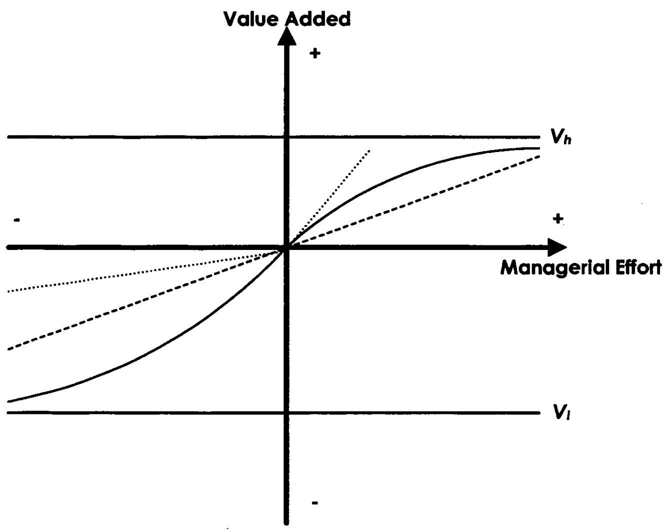

Figure 4.1 Possible Relationships between Managerial Effort (*e*) and Value Added (*V*)

D's effort, moreover, is not costless. The cost of effort is defined as $c(e)$. It is positive if the positive effort is exerted. It is negative if the negative, value-reduction, effort is exerted. Negative cost can be interpreted in terms of perk consumption or personal comfort and convenience.

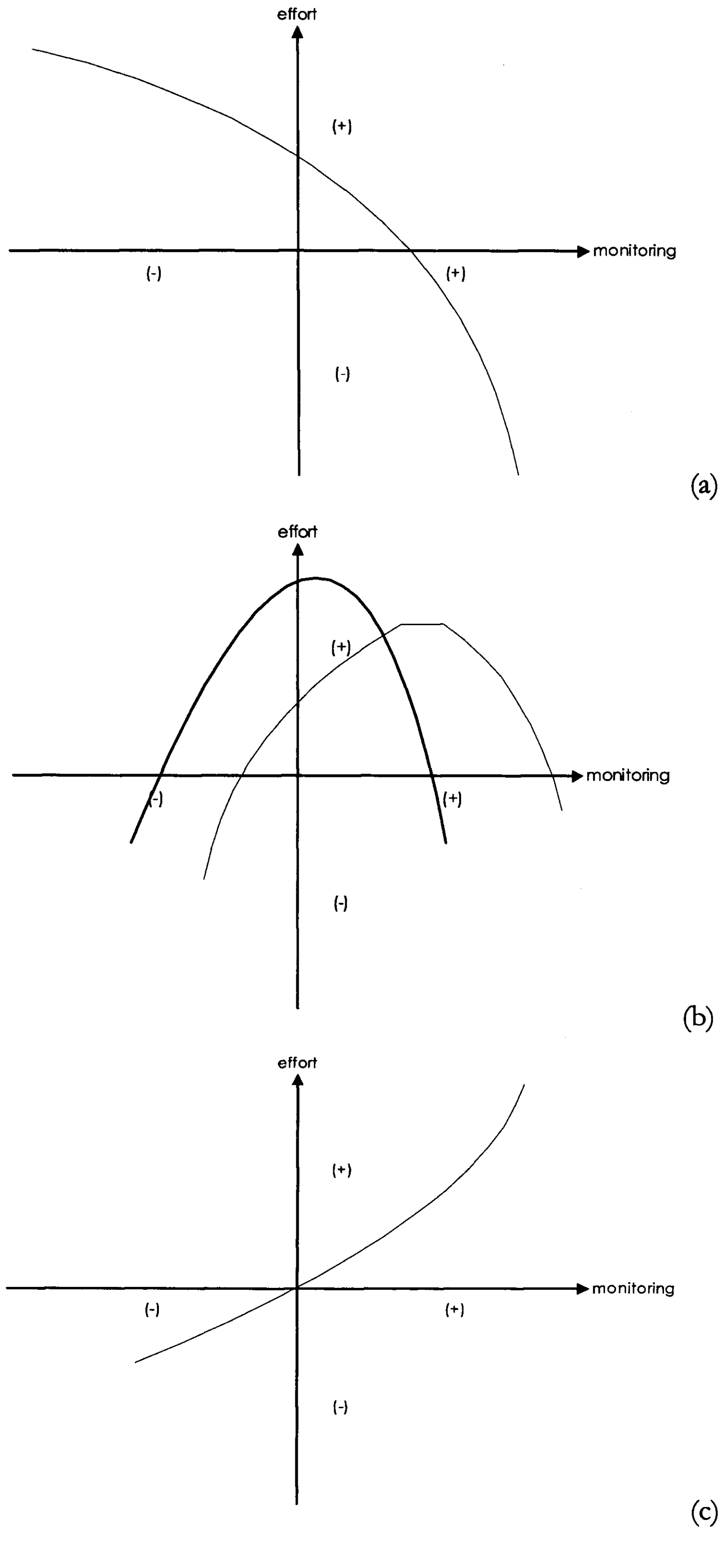

Figure 4.2 Relationship between Monitoring Effort exerted by Creditors and Managerial Effort (Diligence) exerted by Debtor

The level of debtor's effort further depends on how the debtor responses to creditor's monitoring, $e = f(\mu)$. Some debtors may not like to be monitored. For example, in the case of Thailand, positive monitoring indicates distrust. Monitoring by creditors may decrease the debtor's effort ((a) in Figure 4.2). Some debtors may be more diligent when the monitoring increases to a certain level. If monitoring exceeds that point, the effort is declining. Also, the effort may be constant to a certain range of monitoring ((b) in Figure 4.2). Some debtors may positively exert more effort as monitoring increases ((c) in Figure 4.2). This debtor's response to monitoring is unknown to the creditor.[1]

4.1.2. The Relationship

At the beginning of Period t, D carries over the wealth or asset worth V_{t-1} to himself and worth L_{t-1} to the market – $V_{t-1} \geq L_{t-1}$. The project needs a finance of B_t to create the outcome worth V_t to himself and worth L_t to the market. Assume that debt financing is optimal; D needs to borrow that amount in order to proceed with the project.

D proposes to C the proposal to borrow B_t and an interest rate i is decided – presumably it is exogenously negotiated given all expectations about both sides and a problem of credit rationing does not exist (discussed later in 4.1.3). If C decides to lend B_t at the interest rate i, she will weight it up with her alternative risk-free opportunity. She will also decide the level of monitoring that would affect the debtor's effort.

$$B_t(1 + (i - r_f)) > c(\mu) \quad (4.3)$$

And $$E[L_{t-1} + B_t + V_t + \Delta V p(E[e(\mu)])] \geq B_t (1 + i) \quad (4.4)$$

She will choose μ^* that satisfy (4.3) and (4.4) in order to influence the behaviour of the debtor. μ^* satisfying (4.3) and (4.4) may not guarantee the survival of D since it is chosen purely from C's perspective. $E[..]$ is the expectation of argument in the square brackets.

[1] It is worth considering the response of management towards monitoring in different economies. How can monitoring influence managerial efforts in various contextual settings. When management is an owners' agent, the balance between ownership's and creditors' monitoring is also essential. We conjecture that response to monitoring is largely influenced by institutional factors in each economy. In this study, we treat such response as non-parametric whereby no specific functional form is assumed.

D receives the sum of B_t and then invests it with his asset, L_{t-1}. The investment bears fruit at the end of Period *t*. The outcome of the investment is determined by the debtor's effort or diligence, *e*, through the probability to achieve the difference of value added.

He will maximise

$$\{L_{t-1} + B_t + V_t + \Delta V p(e \mid \mu = \mu^*)\} - B_t(1 + i) - c(e \mid \mu = \mu^*), \qquad (4.5)$$

by choosing the optimal effort, e^*, given the monitoring effort exerted by the creditor and (4.5) > 0. This implies he is maximising the surplus (total value less loan (plus interest) and cost of effort) under comfort (or discomfort) of creditor's monitoring.

When the period is lapsed, the value added materialised. *D* needs to repay the loan plus interest, $B_t(1 + i)$, to *C*. If *D* defaults, *C* has two choices:

1. *C* can repossess *D*'s wealth and resell it to satisfy the unpaid debt. Since we impose the condition that L_{t-1} must be retained in order to make *D* remaining operative, the seizure of *D*'s asset spells liquidation of *D*'s company.

2. *C* can allow *D* to continue its operation for another period. Thus, the same process recurs. It is equal to the situation that *C* lends $B_t(1 + i)$ to *D* and *D* paybacks $B_t(1 + i)^2$ in the following period or *C* lends B_t to *D* for 2 periods.

Additionally, from this setup, we can see that the creditor after each lending period has a choice of filing lawsuit against the debtor or doing nothing (which equals to lend the same amount of loan for an additional period) providing the debtor did not repay the loan plus interest. Perpetually doing nothing implies the status of creditor being closer to a shareholder. A shareholder is the one who owns the firm, the one who finances the firm perpetually. The only difference is that the creditor still has a priority to be repaid for the debt before the shareholder. All other aspects are similar. This is a rationale and justification behind the conversion of debt into equity used regularly in reorganization. Any creditor who thinks it is worth more for her to lend long (than exercise her claim now) is more or less the same as the shareholder of the firm. The relationship of this lending and borrowing activity can be depicted in Figure 4.3. The sign ' denotes variables that occur in the additional period.

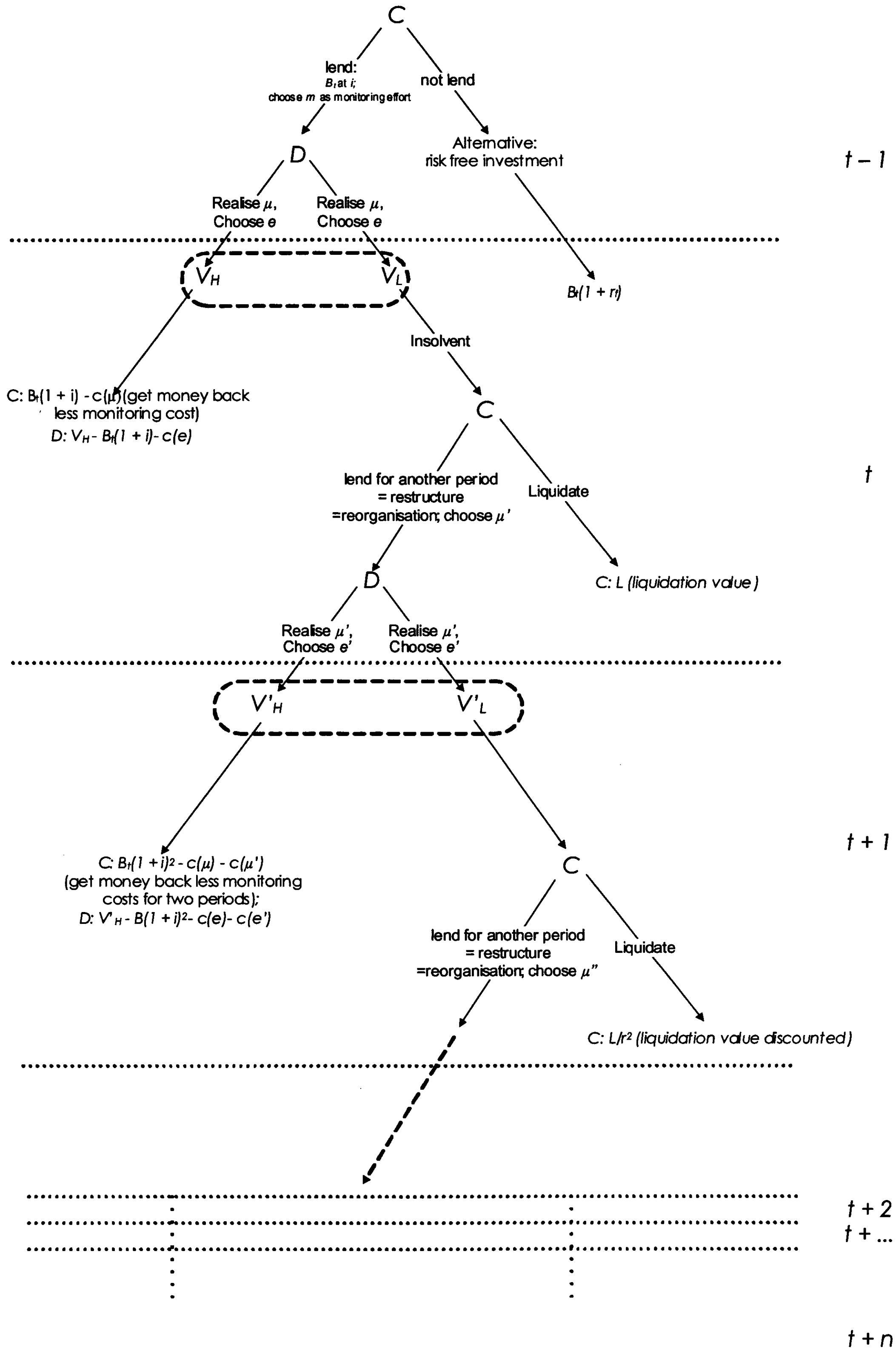

Figure 4.3 Extensive Form of Lending-Borrowing Relationship with Options for Liquidation or Private Workout if Debtor Defaults

In this setup, it is assumed that no bankruptcy legislation exists. However, the property rights of both *C* and *D* are well defined and fully enforceable. Monitoring effort of creditor and debtor's diligence are observable by both sides but not verifiable. Hence, both efforts cannot be written in the debt contract.

The last term of (4.5) showing cost of exerting effort can be negative, zero, or positive depending on the debtor's effort, which further influenced by the creditor's monitoring. The range of possible outcome is examined next. *D* will retain a so-called surplus after payback the loan plus interest. Simply if the project's return is equal to or higher than interest expense, Bi, everything is fine – *D* repays the debt and continues his operation into the subsequent period; C receives the investment plus interest and continues the lending business; and the debt contract is terminated.

4.1.3. Credit Rationing

Interrupting the model here is worth noting since interest rate is assumed to be exogenous. In reality, interest rate reflects the cost of borrowing – i.e. price of loan. Interest rate determination, however, is less relevant to our consideration and has been omitted.

Some considerations on interest rate determination need to be mentioned. First, interest rate is not a simple price that can clear the market by reflecting money's scarcity. If interest rate rises beyond a certain level, it will attract risk-taking borrowers (those who are likely to behave opportunistically to apply for the loan. Instead of having a mixture of potential borrowers allowing lenders to choose from, high interest rate attracts only risk lovers; thus, risk of creditor inevitably increases – the probability of being unpaid is higher. Therefore, it is plausible that at any time and at a sufficiently high interest rate, there would be excess demand for loan. It is necessary for creditors to allocate their loan by not using interest rate. Credit rating, project and risk appraisals are employed to screen potential borrowers. Another way to avoid the problem of excess demand is creditor rationing (Stigliz and Weiss, 1981).

Furthermore, borrowing is a long-term transaction, not in a spot market, involving uncertainty between the time of borrowing and the time of repayment. Throughout this time, change in debtor's behaviour influences the creditor's chance of being repaid – i.e. the threat of moral hazard increases along with the time span of borrowing period.

Since the interest rate cannot be raised to offset the expect loss from default or to compensate for the real risk of investment, creditors' loss is unavoidable: from time to time there would certainly be a default. It also becomes creditors' task to handle such loss or risk. The implication is there should be other instruments that can be employed to manage debtor's risk and opportunistic behaviour; among them are credit rating, credit appraisal, collateral and security.

4.1.4. Debtor's Default and Insolvency

There is a difference between default and insolvency here, even though these terms may be used interchangeably. Default simply means that the debtor breaches the debt contract by not repaying the debt to his creditor. Insolvency implies that debtor's total debt or liabilities exceed total assets. Two different definitions are different on the basis of measurement: default is based on action of non-repayment; while insolvency is based on values of assets and debts. But both are related: the debtor can default whether or not he is solvent or insolvent; if the debtor is insolvent, he definitely defaults. In other words, insolvency is sufficient (but not necessary) condition for default.

Debtor's insolvency is evolving. It does not suddenly appear. In fact, it begins with the low return on investment, insufficient inflow, inability to repay loan interest or delay payment (on extended credit line) for factors of production, up until default. If this sequence of deterioration has not been detected and resolved, the debtor eventually becomes insolvent.

In our framework, as long as $V_1 + \Delta Vp(e) \geq B_t i$ – i.e. the value added is equal to or more than interest expense, D will payback to the total amount of loan plus interest. Note that the value of the firm after Period t exceeds total obligation to pay C back, $\{L_{t-1} + B_t + V_1 + \Delta Vp(e)\} - B_t(1 - i) > 0$ – the debtor is solvent and able to continue its operation after repayment.

If $V_1 + \Delta Vp(e) < B_t i$, D is still solvent; however, to repay the total debt, D has to sell off its asset L_{t-1} resulting in closing down since the income generated by this investment is lower than the interest. D presumably will decide to default to keep itself alive. This is a dilemma facing D. D needs to choose between defaults and repays given the fact that the total value of the debtor still exceeds the total debt. In some circumstance whereby D is convinced that the continuation cannot improve its financial viability, for example when (4.9) below is not true, D will decide at this stage to voluntarily close down itself and repay the total debt.

When $V_t + \Delta Vp(e) = 0$, the company value falls to $L_{t-1} + B_t i$ which is still larger than the loan plus interest, i.e. the debtor is solvent.

When the effort is negative, the company value reduces further because of negative value added. The company value is equal to the loan plus interest, $B_t(1 + i)$, when $V_t + \Delta V$ is $-(L_{t-1} - B_t i)$ [$= B_t i - L_{t-1}$]. This implies the debtor is just solvent. The most crucial fact to remind here is solvency of debtor does not imply its existence.[2] This is valid particularly with this and two previous paragraphs. In these three circumstances, despite being solvent, the debtor needs to dissolve or close down because its assets must be sold to payoff the total debt. Debtor's existence is assured **if and only if** $V_t + \Delta Vp(e) \geq B_t i$.

The point where $V_t + \Delta V = -(L_{t-1} - B_t i) = B_t i - L_{t-1}$ denotes the borderline of insolvency. Above this point, the debtor is solvent **but** its existence is not guaranteed. What guaranteed is that the creditor would be fully paid. Beyond this point, C cannot get full repayment from liquidation anymore. She, unavoidably, will suffer some losses. The debtor is now insolvent.

The company value is zero when $V_t + \Delta Vp(e)$ is $-(L_{t-1} + B_t) = B_t - L_{t-1}$. Any lower effort than this level will cause the firm's value to be negative. Figure 4.4 summarises possible range of $V_t + \Delta Vp(e)$ corresponding to the range of company value as follow:

a) When $V_t + \Delta Vp(e) < B_t i$, D will default

b) Even D exerts zero effort, $e = 0$, the company value is sufficiently higher than the total liability, $L_{t-1} + B_t i > B_t(1 + i)$.

c) When $B_t(1 + i) \leq V_t + \Delta Vp(e) \leq \{L_{t-1} + B_t + V_t + \Delta Vp(e)\} - B_t(1 - i)$, C can get a full repayment by liquidating D.

d) When $V_t + \Delta Vp(e) < B_t i - L_{t-1}$, C will suffer some irrecoverable loss from liquidation.

e) When $B_t - L_{t-1} \leq V_t + \Delta Vp(e) \leq B_t i - L_{t-1}$, C may consider the possibility of reorganisation since the company value is still positive and she may recoup her loss (in d)) by allowing D to continue. Note that sometimes at this point private workout may be too late because the firm's value is severely deteriorated – recovery would hardly be successful.

f) When $V_t + \Delta Vp(e) < B_t - L_{t-1}$, the value of the firm is negative. It, from the economics' point of view, must be immediately liquidated.

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[2] Alternatively, see (4.3) and (4.4) *above*, these conditions do not require the survival of D. In other words, C does not care if D will survive or not; C cares only if she would be repaid or not.

G

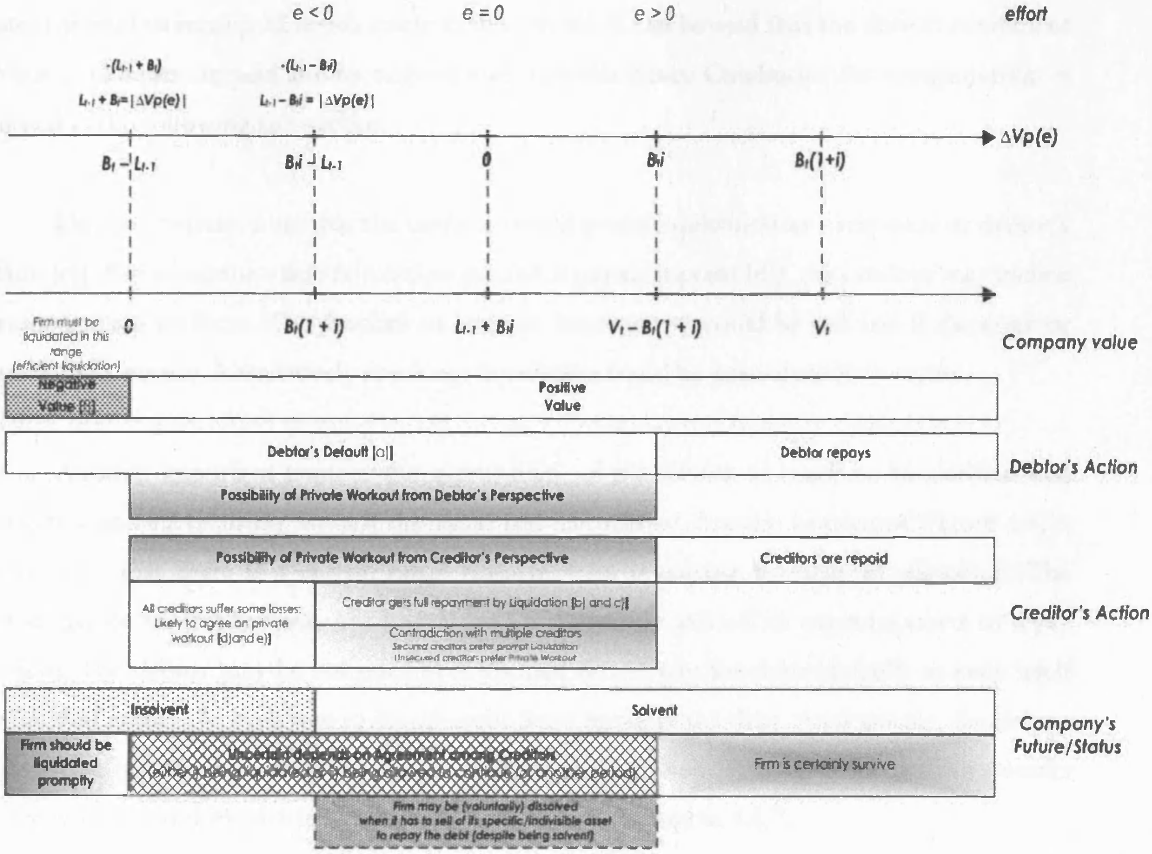

Figure 4.4 Summary of Evolution of Insolvency

4.1.5. Preliminary Implications

The most important implication is that the creditor can suffer from the loss made by debtor's mismanagement. Even in an absence of any other legal provision – particularly bankruptcy, the right to repossess the debtor's wealth does not guarantee the creditor to be fully paid. It is worth noting that under this circumstance, the creditor has a sole right to control the debtor's asset when the debtor defaults. The creditor's right is fully enforceable and has not been impaired by any other legal provision. The loss of creditor depends on how detrimental the debtor did to his own company. Nothing has to do with the law. Even the most stringent provision cannot prevent the creditor from the possibility of loss. In other words, no legislation can guarantee any creditor that she will not loss. An only way to avoid the loss altogether is to invest in an alternative risk free investment.

Moreover, there is potential for the company to recover as long as the company value is positive. If the debtor is not liquidated at the end of this period and allowed to continue for another period to recoup all losses made in this period, it can be said that the default is efficient providing all debts are paid and its original asset remains intact. Conditions for reorganisation is analysed in the following sub-section.

On the contrary, note that the creditor would prefer liquidation as a response to debtor's default [c)]. But when the value falls below the full repayment point [d)], the creditor may incline towards private workout. This implies an attempt for recovery could be too late if the creditor waits until d) occurs. Alternatively speaking, liquidation could be premature if c) occurs.

Another important point is the survivability of the debtor. It needs to be clarified that insolvency and survivability are not the same but interrelated. See the bottom of Figure 4.4, it can be seen that there is a certain range that the firm is solvent but may be dissolved. The debtor may be solvent but may not be survived if it needs to sell off its essential assets to repay the debt. The debtor may be solvent but it decided not to pay the debt (default) to keep itself survive that causes the creditors to foreclose its asset to repay the debt. Analogously, the debtor may survive (at least for one period) even though it is insolvent as long as its creditor permits private workout **and** the debtor itself agrees, which is discussed in 4.1.7.

4.1.6. Irrelevance of Security

In reality, occasionally, debtors use their properties or wealth to assure creditors on their ability of repayment. Such properties or assets used as collateral are proposed to creditors for the purpose when debtors fail to make promised repayment creditors can seize that collateral instead. Loans made on this basis are called 'secured.' Collateral is also known as 'security.' Loans made without security are called 'non-secured.' Security is used to classify creditors into two classes. Secured creditors can exercise their rights by seizing or repossessing the object registered as security instead of getting repayment. Non-secured creditors can exercise their rights through the court and court-appointed officers to seize and resale debtor's assets (that are not registered as security) to satisfy unpaid obligation. Hence, it is obvious that if the asset of debtor is limited, secured creditors are in relatively more advantageous positions. In the worse case scenario, all assets may be registered as securities and nothing is left for the court to take for non-secured creditors.

Considering our hypothetical relationship, security is irrelevant under our setting. Since the creditor is a sole lender, no matter she is secured or non-secured, she would get repayment from the same asset estate. The only difference is the realisation of debtor's asset is privately done by the creditor herself (secured) or officially done by the court (non-secured).

Therefore, it can be deduced that security is relevant only when there is more than one creditor having claims upon the debtor's assets. It fundamentally does not affect the nature of lending-borrowing relationship on one-to-one basis. Security is employed as a commitment tool or to reduce the information cost for creditor to know about the debtor. It is used where there is a high divergence of belief about the debtor's future prospect between the debtor and the creditor, particularly when the expected return of investment is difficult to objectively assess or is uncertain. Creditors may refuse to grant loans if their beliefs are not coincided with those of debtors. Securities assist creditors to visual what they would get as repayment, even when debtors are unable to pay debts. In other words, securities carry information about debtors' abilities to repay. If the relationship between creditor and debtor is closed or recursive, the need of security diminishes since the creditor knows her debtor better regarding the ability to pay, the diligence made during the borrowing, and the investment behaviour. Creditors, hence, can foresee debtors' prospects easier without a need for security.

It is not a tool for gaining priority of claims. Otherwise, no creditor would ever lend on non-secured basis. Evidently, we observe large proportion of lending on non-secured basis. On one hand, it alleviates the debtor's financial constraint by attracting potential lenders to lend even though they are uncertain about the debtor's project. On the other hand, since the priority is higher for secured creditor, the probability of being unpaid imposed on non-secured creditor is higher – making them worse off, *ceteris paribus*. An only problem of security is when one non-secured creditor gains her priority over other creditors by being given the security from the debtor. This is considered as discrimination against other non-secured creditors. In other words, the debtor tries to favour or to give preference to some creditors over others. This would be done only by an agreement between the debtor and the particular creditor who receives such preference.[3] That is why this action is largely prohibited and will be nullified in many aspects of law as well as bankruptcy (see Chapter 5).[4]

[3] Although the decision to give such preference is in the debtor's hand, in practice, any asset given as a security generally needs to be officially registered (by officers or notary public) or to have written evidence. It implies that both must agree upon such action.

[4] Nullification of such act can be done when a disadvantageous creditor requests to the court to rescind the preferential act of debtor to an advantageous creditor if the disadvantage can be proven.

4.1.7. Possibility of Private Workout

Private workout[5] in our model is defined as the situation where the creditor allows the debtor to continue for another period as if the creditor lends the same amount again. The creditor will consider it if she believes that she would be better off than what she would get from liquidation. Creditor's entitlement on repossession does not force creditor to act promptly upon the debtor's default but it is conditional on the proof of debtor's default presented to the relevant authority by a creditor. Creditor cannot simply seize the debtor's asset by herself. Instead, the authority is the one who do so on her behalf conditional on the satisfactory evidence of debt contract and default. As long as the creditor refrains from pursuing her right to the authority, the debtor is not liquidated. By simply not going to the court, the creditor is considered to allow the debtor to continue its operation for another period.

Socially Desirable and Economically Efficient Private Workout

From the outset, private workout should be economically efficient requires

$$\frac{1}{(1+r_f)}[L_t + V_l' + \Delta Vp(e') - B_t(1+i)^2 - c(e') - c(\mu')] - c(e) - c(\mu) > 0, \qquad (4.6)$$

where r_f is a risk free rate representing the social rate of time preference to commonly discount values occur in the period of continuation and variables with ' (dash) denote variables in the second period (extended period allowed by private workout).

The intuition behind this is that as long as the return from the continuation of debtor's business less all costs and the initial loss, appropriately discounted, is positive the debtor's company should be allowed to continue. Any possible solution that satisfies this condition is efficient and socially desirable. Again, this condition does not guarantee the survival of debtor after private workout.

[5] Private workout is very broad term; simply means the agreement between creditor and debtor to solve the problem of default without using legal procedures. It may involve renegotiation of terms and conditions or change of debtor's management team.

Creditor's Rationale behind Private Workout

On the creditor's side, she will give the green light to private workout if and only if she is better off by doing so. If she decided to liquidate the debtor promptly, she will get somewhere between zero and $B_t(1+i)$ regardless of actual realisation of debtor's asset (if the realisation is higher than $B_t(1+i)$, the debtor will get the remainder; if the realisation is lower than $B_t(1+i)$, she will get only that value) and she can invest this amount into the risk-free investment and earn the risk free interest. What she gets from this action forms the basis for her decision on reorganisation. If she decided for reorganisation, she will have to exert costly monitoring effort for another period and she will act as if she continues to lend that amount of loan for two periods. The creditor will choose reorganisation if the expected return in reorganisation is higher than liquidation.

Algebraically, giving $\check{R}_c$ is the repayment C gets from immediate liquidation. $\check{R}_c$ is defined as

$$\check{R}_c = \begin{cases} L_t \\ B_t(1+i) \end{cases}; \qquad (4.7)$$

This implies that i) when the debtor is solvent $L_t > B_t(1+i)$, the creditor will get the full repayment of $B_t(1+i)$ as if the debtor has never default; ii) when the debtor is insolvent $L_t < B_t(1+i)$, the creditor will get only L_t.

For Period $t+1$, C can invest $\check{R}_c$ in the risk free alternative and earn $\check{R}_c(1+r_f)$.

If C allows D to continue in Period $t+1$, the maximum she could get is $B_t(1+i)^2$ and she has to pay $c(\mu')$ for monitoring in this extended period.

The condition for C to agree with D on private workout, assuming D will definitely earn at least $B_t(1 + i)^2$ after the second period, is

$$\frac{1}{(1+k_c)}\left[B_t(1+i)^2 - c(\mu')\right] - c(\mu) > \frac{1}{(1+k_c)}\check{R}_c(1+r_f), \qquad (4.8)$$

where k_c is the discount factor reflecting the time preference of creditor used to discount the value in the future (Period $t+1$).

In fact, the uncertainty remains during private workout. C will certainly get less than $B_t(1+i)^2$. (4.8) is less attainable. A more realistic condition can be described as:

$$\frac{1}{(1+k_c)}[q(B_t(1+i)^2)] - \frac{1}{(1+k_c)}c(\mu') - c(\mu) > \frac{1}{(1+k_c)}\breve{R}_c(1+r_f), \tag{4.8a}$$

where q is the probability that D can repay[6] the whole debt plus interest of two periods, $0 < q < 1$.

Considering (4.8), the likelihood of creditor to prefer private workout is

i) increasing in the *size of the loan*,
ii) increasing in the *interest rate*,
iii) increasing in the *subjective belief* to obtain full repayment
iv) decreasing in the *cost of monitoring*,
v) decreasing in the *realised value from liquidation*, and
vi) decreasing in the *discount rate*, *ceteris paribus.*

Note these conditions are derived under full enforcement of creditor's entitlements.

Debtor's Decision on Private Workout

It might be conjectured that the debtor would try everything to survive for another period waiting for an upside gain in order to recoup all losses and continue the business into the future. It is, however, not strictly true. If the realisation from liquidation is higher than what the debtor owes, the remainder will be given to the debtor. On the contrary, if the realisation is insufficient to repay the debt, the debtor gets nothing. If the debtor is allowed to continue, i.e., the private workout is seen by the creditor as profitable, and he is agreed to it, he has to exert the effort for another period which costs him $c(e')$. If it is successful, he will receive the remainder of the outcome less the loan of two periods, $B_t(1+i)^2$, and the effort cost. Analogous to the creditor, the debtor will embark on private workout if and only if its expected return is higher than what he will get in liquidation.

Algebraically, if D is liquidated by C, he will get $\breve{R}_d$ as a remainder or residual:

$$\breve{R}_d = \begin{cases} 0 \\ L_t - B_t(1+i) \end{cases}. \tag{4.9}$$

On the other hand, if D is allowed to continue and suppose that reorganisation was successful, D will continue when the following condition is fulfilled:

[6] This probability does not imply the survival of D. It simply means at the end of private workout, the present value of the debtor at least equal to the total amount of debt including interest of two periods.

$$\frac{1}{(1+k_d)}\left[L_t + V_t' + \Delta Vp(e') - B_t(1+i)^2 - c(e')\right] - c(e) > L_t - B_t(1+i), \qquad (4.10)$$

where $L_t = L_{t-1} + B_t + V_t + \Delta Vp(e)$.

It is not necessary that the company would survive when (4.10) is fulfilled. This condition requires only the outcome, from the debtor's perspective, of private workout (continuation) to be greater than the outcome of being liquidated immediately by its creditor. The debtor will continue his business as long as this condition is held. However, at the end of Period t+1, if the remainder (after the loan plus interest of two periods and efforts costs are deducted) is less than the original value of his asset, L_{t-1}, it means the company will be voluntarily dissolved.[7]

For the company to survive after private workout, the left hand side of (4.10) should be greater then L_{t-1} and simultaneously greater than the right hand side of (4.10). Hence, the condition that suffices the willingness to continue and survive is

$$\frac{1}{(1+k_d)}\left[L_t + V_t' + \Delta Vp(e') - B_t(1+i)^2 - c(e')\right] - c(e) - L_{t-1} > L_t - B_t(1+i). \qquad (4.10a)$$

This implies the original asset, presumably the one that is indivisible, must be retained after all obligations are paid, including the management's effort in both periods are rewarded.

It is also worth noting that conditions that will induce the debtor to embark on private workout are

i) *low discount rate*: the more the debtor looks and concerns about future (more patient), the more likelihood of private workout;

ii) *value of the company in the past*: this one is obvious – if the value of company is not much deteriorated during the first period, it is easier to recoup the loss;

iii) *high value added from private workout*: the higher the value added predicted to be created in private workout means the private workout is more attractive to the debtor;

iv) *amount of loan and interest*: the smaller the loan and interest for both periods heightens the attractiveness of private workout;

v) *cost of effort*: the debtor's management will be deter from the private workout if the cost of exerting the effort is high;

vi) *value of non-divisible asset (initial asset)*: if the market value of specialised asset is high, it is less likely for the debtor to continue; and, finally,

[7] Thus, it cannot be direct presumed the debtor will always want to survive when it is ailing. The decision to struggle is made rationally. This caution shall be noticed by laws and practitioners not to assume so.

vi) *remainder from liquidation*: if there is anything left from liquidation, it is less likely for the debtor to accept the private workout since it will discourage the debtor to continue.

When (4.9) is not fulfilled, D will not continue, even though the permission to continue is given. D will voluntarily wind up his company immediately. The statement that oversimplifies the tendency of the debtor to continue regardless of circumstances is invalid.

Notice that the outcome from liquidation forms the basis, or the threat value, for the decision making on private workout. For both, higher return from liquidation implies lesser likelihood for private workout. It is applied to both from the creditors' and debtor's perspective. Furthermore, these conditions are derived under full enforcement of debtor's rights and responsibilities.

Successful Private Workout

Before deriving conditions for successful workout, the definition of 'successful' private workout needs to be clarified. The followings are considered as 'successful':

i) the debtor repays all debt to the creditors including interest for two periods and survive;

ii) the debtor repays all debt to the creditors including interest for two periods and dissolved (no longer survive since its asset needs to be liquidated to repay the total amount);

iii) the debtor repays only a proportion of the total debt and interest (not the full amount) but its present value is higher than the value from liquidation in the first period.

Previously we assumed that private workout will be successful. Conditions such as (4.8) are hardly achievable since it does not take into account the expectation of creditor about the debtor's future. More realistic consideration causes these conditions to be more stringent.

The prerequisites for successful private workout are i) the creditor allows the debtor to continue and ii) the debtor is willing to continue. At the same time, from the welfare's point of view, private workout will be beneficial if and only if

$$\frac{1}{(1+r_f)}[L_t + V_l' + \Delta Vp(e') - B_t(1+i)^2 - c(e') - c(\mu')] - c(e) - c(\mu) > 0, \qquad (4.11)$$

where r_f is a common discount factor.

Simply speaking, (4.8), (4.10), and (4.11) must be fulfilled to be said that private workout of D is successful. However, solutions to both (4.8) and (4.10) are already the subset of solutions to (4.11) given both creditor and debtor are sufficiently patient, i.e. having their discount rates less than or equal to the social level of time preference (reflected by a risk free rate): k_c and $k_d \leq r_f$.

The implication is that, although private workout is beneficial, it will occur if and only if certain conditions are fulfilled – those conditions are (4.8) and (4.10) which must be satisfied simultaneously. Consequently, beneficial private workout opportunity can be neglected and forgone due to the disagreement between creditor and debtor. In other words, solutions to (4.11) are necessary for having efficient private workout while solutions to (4.8) and (4.10) simultaneously are sufficient conditions and prerequisites for having mutually agreeable private workout. We derive the conditions that make the private workout successful as follow. Caution: this condition results in successful private workout but subsequent liquidation may ensue.

$$V_l' + \Delta Vp(e') > \breve{R}_c(1+r_f) - B_t(1+i) + k_d[L_t - B_t(1+i)] + c(\mu') + (1+k_c)c(\mu) + c(e') + (1+k_d)c(e) \quad (4.12)$$

Since there are two possibilities of $\breve{R}_c$,

When the debtor is solvent,

$$V_l' + \Delta Vp(e') > B_t(1+i)r_f + k_d[L_t - B_t(1+i)] + c(\mu') + (1+k_c)c(\mu) + c(e') + (1+k_d)c(e) \quad (4.13)$$

When the debtor is insolvent ($L_t < B_t(1 + i)$),

$$V_l' + \Delta Vp(e') > (1+k_d)[B_t(1+i) - L_t] + c(\mu') + (1+k_c)c(\mu) + c(e') + (1+k_d)c(e) \quad (4.14)$$

To ascertain the survival of the company after private workout, L_{t-1} must be retained after all obligations are paid. Thus, we obtain

$$V_l' + \Delta Vp(e') > \breve{R}_c(1+r_f) - B_t(1+i) + k_d[L_t - B_t(1+i)] + c(\mu') + (1+k_c)c(\mu) + c(e') + (1+k_c)c(e) + L_{t-1} \quad (4.15)$$

It is obvious that to ensure the existence of the company after private workout, the condition of success is more stringent. The value added should be sufficiently large to outweigh all losses in the initial period, to repay all obligations, to compensate for all costs of private workout and initial investment, and, finally, to keep the initial asset (L_{t-1}) in one piece. Otherwise liquidation will occur even though the private workout is successful because the asset must be sold to satisfy all mentioned above. Table 4.1 summarises the status of debtor and creditor under these conditions.

Table 4.1 Status of Debtor and Creditors under Different Conditions after Private Workout

Condition for Successful Private Workout	After Private Workout			
	Debtor's Status		*Creditor's Status*	
	Solvent	Survive	Fully Repaid	Improvement from default
(4.13)	✓	✓/✗*	✓	✓
(4.14)	✗	✗	✗	✓
(4.15)	✓	✓	✓	✓

*Note: ✓/✗ implies the survival of debtor is uncertain/not guaranteed.

Private workout is not necessarily a way to ensure the survival of the debtor's company. What we are talking about is efficiency. It is simply the better way of dealing with insolvency when certain conditions are met. Immediate liquidation is inefficient when compare with the continuation. After the continuation, no matter what happens to the debtor – liquidated or survived, it is economically superior to premature liquidation. In other words, liquidation in the second period is economically more efficient than immediate liquidation whereby the creditor, at least, bears less loss.

Implications on Private Workout

According to the analysis of hypothetical relationship between creditor and debtor and possibility of private workout, two important implications prevail. First crucial implication is that the creditor is not necessarily being fully repaid when the debtor defaults or is insolvent even though the creditor's right is fully enforceable and not impaired by other legislation. It depends entirely on the degree of insolvency, not the number of creditor. Even with a sole creditor who possesses all rights and claims, the loss cannot be avoided. Once the debtor is insolvent, there is no chance for creditor to get full repayment. Some losses incur, inevitably. Second essential implication is that, although both creditor and debtor agree to embark on private workout in order to solve debtor's default problem and/or insolvency, it is not necessary that the debtor's company will not be liquidated after private workout. Successful private workout economically means its outcome is economically superior and more efficient than immediate liquidation.

Consequently, creditor's loss is acceptable and unavoidable. Moreover, the ultimate aim of private workout is not to make the debtor survive but to find the highest value of the debtor's asset. Therefore, liquidation may ensue after private workout but its outcome is definitely more superior to the outcome from immediate liquidation without private workout. Debtor's survival is an optional extra that requires even more effort or valuation.

In addition, private workout will be carried out when there is a mutual agreement by creditor and debtor. If both cannot agree to do the workout, liquidation would definitely be ensued. Apparently, it is possible to have the divergence of perspective whereby the creditor wants the debtor to continue but the debtor does not and *vice versa.* The presumption that says the creditor has the tendency to liquidate whenever default occurs and the debtor has the tendency to continue regardless of his circumstances is not true.

Nevertheless, there is a time where it is socially desirable for having private workout but no mutual agreement is reached. This implies that private workout causes one of them to be worse off. If the better-off party can make the side payment to compensate the worse-off one, potential private workout can be unleashed. Note that the side payment or the transfer of surplus affects original rights of both. In other words, creditor's rights and claims or debtor's responsibilities is impaired. Therefore, to achieve all economic potential of private workout, some rights and responsibilities of creditor and debtor are modified. To simplify this, rights and responsibilities of creditor and debtor associated with a debt contract apparently reduce the possibility of economic efficient solution for default and/or insolvency. Deviation from original statuses is necessary to achieve economic potential of private workout.

The obvious example is the creditor cannot legally receive the repayment exceeding the principal plus the agreed interest appropriately calculated for the period of lending. Thus, as long as the creditor's realisation from immediate liquidation is sufficiently closed to the return from private workout, private workout becomes relatively less attractive. Consequently, she is less likely to agree on private workout. Supposing that the creditor can receive a side payment from the debtor, she earns more than she is legally bound, private workout is more attractive and she is more likely to allow it. The possibility for private workout is, hence, increased. Evidential side payments come in the form of i) *haircut* or *debt-forgiveness*: this is a side payment from creditor to debtor by forgiving some amount of principal and/or interest and ii) *debt conversion*: this is a side payment from debtor to creditor by converting debt into equity; thus, creditor becomes shareholder which dilutes original proportion of debtor's ownership and can receive the upside gain.

Can they make an additional agreement for side payment? Of course, they can. Unfortunately, such agreement is very prone to reneging and may not be legally enforceable. Suppose the private workout is successful, the debtor may cheat by not paying the agreed side payment but just pay the principal plus interests for two periods. The creditor cannot file a lawsuit against the debtor to enforce this agreement. Moreover, the creditor can no longer take any action on the basis of default because all debts are already paid. What the court would reply is why the creditor did not take any action when the default was first detected. Legal enforcement is not retrospective – once the default is no longer a matter, the law has nothing to do with both creditor and debtor anymore. Therefore, a separate contract for side payment transfer cannot be made conditional on the success of private workout.

Even without bankruptcy, the followings are applied to a simple debt contract when there is default and/or insolvency:

1) the creditor may not be fully repaid,

2) it is not necessary for the creditor to exercise her rights as soon as the default occurs,

3) there is a possibility to turn around the company using private workout but it will be happened if and only both are agreed to do so, i.e. the creditor agrees not to exercise her rights and let the debtor to continue his business for another period,

4) successful private workout does not imply the survival of the debtor's company: the company may be finally liquidated after private workout,

5) rights and responsibilities of creditor and debtor restrict the possibility of recovery; it is necessary to have some deviations from original positions in order to unleash the full potential of recovery.

4.1.8. Recursive or Long Term Relationship

Adding an additional time period into consideration, it is plausible that private workout is not lasting just for one more period but beyond. As long as creditor and debtor are sufficiently patient and both of them live indefinitely, private workout may continue for more than one extra period. Theoretically, it could continue forever if and only if the present value of the expected outcome from workout at a certain point in the future (approaching infinity) exceeds the value of liquidation for both creditor and debtor. (4.8) and (4.10) can be re-written as

$$\frac{1}{k_c}[B_t(1+i)^{t+n} - c(\mu_{t+n})] - \sum_{j=t}^{t+n} c(\mu_j) > \frac{1}{k_c}[R_c(1+r_f)], \tag{4.16}$$

$$\frac{1}{k_d}[L_{t+n} + V_l' + \Delta Vp(e') - B_t(1+i)^{t+n} - c(e_{t+n})] - \sum_{j=t}^{t+n} c(e_j) > L_{t+n} - B_t(1+i)^{t+n}. \quad (4.17)$$

Alternatively speaking, the creditor grants the loan indefinitely as long as she believes that it would worth more to do so than liquidate the debtor now. The private workout will terminate when the creditor discover that by lending the debtor an additional period is worth less than liquidate it now or the full debt including interest is repaid. Analogously, the debtor will dissolve his own company if the cost of private workout for another period exceeds what he will get from doing so. For any additional period, both creditor and debtor will evaluate whether private workout is worthwhile.

Under this setting, despite being unrealistic, its implication is interesting. The creditor or the debt holder is asymptotically moving closer of being the equity holder. An equity holder invests a sum of money for unlimited period until the company dissolves. The only difference is that the debtor holder is eligible to receive the repayment or renumeration for her investment up to the principal plus appropriate interests while the equity holder is eligible for any leftover after all other obligations are satisfied. Anyhow, both have to suffer the loss even though creditor is more protected.

Therefore, this justifies the creditor rights to repossess debtor's assets when the debtor fails to make a repayment. Ownership of assets changes hands from the debtors' to the creditors' when the debtor fails to make repayment. In the very long run, debtor's default or insolvency where private workout is allowed and no legal action has been taken is similar to the legal one with immediate transfer of ownership (liquidation). With private workout, legal procedure is not initiated. Eventually, the end results are comparable.

Longer term relationship on the very same debt contract allows trust and reputation to be formed between both parties. Moreover, information about debtor is known better. For instance, the creditor learns how the debtor responds to her monitoring; hence, she knows how to optimally exert her monitoring effort in order to induce the desirable diligence from the debtor. Furthermore, this ongoing relationship increases the possibility of side payment to be made. Because they have both invest their effort and time on private workout longer than one period, the deflection is less likely and side payment could be transfer from the debtor to the creditor with credibility. This even makes the long term private workout closer to the immediate transfer of ownership.

4.1.9. Irrelevance of Legal Action and Relevance of Legal Entitlement and Enforcement

Legal entitlement, enforcement, and action must be clearly distinguished. Entitlements are about rights while enforcements are about how such rights are honoured. Legal actions are about how to formally pursue one's rights through relevant authorities. In our hypothetical model, it is apparent what matters most is legal entitlement. As long as both creditor and debtor know exactly what their rights under different circumstances are, it is not necessary for them to use relevant enforcements formally. Simply speaking, legal entitlement and enforcement are compulsory to set the scene or the threat value for related parties during subsequent renegotiation if conflict occurs but legal action is optional.

Both parties can agree to do private workout in an event of default. It is not necessary for the creditor to pursue her rights via authorities. Private settlement can be achieved without formal legal enforcement. However, the settlement cannot be made without legal entitlement as shown above. The longer the relationship allows the higher probability to achieve efficient outcomes that may not be attained in one-period workout.

Not to be mistaken, entitlement and enforcement are still essential as a basis of negotiation. Having ambiguous entitlement and enforcement, negotiation for private workout cannot be instigated. The point is that it is unnecessary to bring about any legal action promptly when default is occurred. On the other hand, unclear and ambiguous entitlements and enforcements, although preventing both parties to use formal procedures, provide too broad set of possibilities for renegotiation. Economically speaking, it gives too many plausible arrangements for both parties to negotiate for. Hence, achieving the settlement is more difficult.

Formal procedures are the last resort when renegotiation cannot reach an agreeable term. It is there as a last choice for both parties, not the first. Creditor and debtor know exactly what they will eventually get if the formal legal action is called for. Thus, they, based on such outcome, can renegotiate for a better, more efficient term. Efficient legal setup should allow parties to reach efficient outcome by themselves, not creating the procedure that lead to efficient outcome.

4.1.10. Model Summary

From this hypothetical model representing a simple debt contract between a single creditor and a single debtor, many interesting inferences have emerged. First of all, there is a possibility of the creditor to lose her investment – partially or a whole. No matter how she safeguards herself against it and even if all rights are fully protected. This implies that security given to the creditor is also irrelevant.

It is unnecessary for the creditor to pursue her rights through the formal procedure. Since liquidation is the only disposal method according to the formal procedure, it might not be the best deployment – economically inefficient. When certain conditions are fulfilled, subsequently, there is always a better way to solve the debtor's default informally through private workout. Equally vital is clearly-defined legal entitlement for creditor and debtor. It is necessary for any renegotiation which may ensue.

Essentially, we discover that conditions allowing private workout to be agreed are already subsets of economically efficient and socially desirable outcomes which are not liquidation. To attain such outcomes, relaxation of initial entitlements held by both involved parties is needed. This explains why private workout in reality involves the violation of fundamental rights and entitlements of debtor and creditor.

When the relationship is recurring, private workout is achieved easier since trust is being built between the twos and information regarding each other can be obtained at lower cost. Both are likely to move away from their statute's rights and agree on a settlement that violates their initial entitlements (for instance, the creditor gets more than what she has the claim for or the debtor pays less than what he obliges to). It is equally crucial for involved parties to be sufficiently patient in order to have private workout and a longer-term relationship. Impatience makes current costs outweigh future benefits.

4.1.11. Normative Legal Recommendation

One question may arise: if the violation of initial entitlement and enforcement is required to attain economically efficient private workout, why we do not change the entitlement and/or the enforcement from the outset to facilitate private workout. The straightforward answer is no.

Changing entitlement and/or enforcement, or even having two separate sets of entitlement and enforcement, affects initial decisions and behaviours of lending and borrowing from the outset. Negotiation for loan's amount, interest, terms and conditions will be accordingly adjusted to incorporate this change. Notwithstanding, it will change the behaviour of creditor and debtor during the course of the relationship as well. For instance, if the creditor is allowed by law to earn more than what she has the claim for (in order to induce her to agree on private workout), she may have an inclination to opportunistically monitor the debtor in such a way that the debtor would definitely default. Similarly, if the debtor is allowed by law to pay less than what he is originally liable for (in order to attract him to embark on private workout), he would exert unduly low effort in the first period to cause a default and then continue on private workout in order to pay less.

Much consternation would be caused by readjusting the way the debt contract is formed and, if there are two sets of rule, an attempt to switch between two regimes to find the most favourable one. Trying to switch between two sets of legal rules requires the objectively observable and verifiable criteria to decide which one is to be used. This would lead to legal battles between two parties to fight for the most favourable regime. Legal processes are costly and this additional battle adds substantial costs and wastes unnecessary resources including time. Co-operation between the twos is diminished.

It is necessary to have a single reference point by maintaining to the original, standard entitlement and enforcement in order to allow creditor and debtor to renegotiate on private workout. Introducing different set of entitlement and enforcement is rather detrimental because it introduces an additional reference point for both involved parties to bargain for. It would perplex the negotiation process and makes the solution less attainable.

Essentially, keeping up with original entitlement and enforcement could prevent an achievement of *ex post* efficiency because it makes private workout less attainable. However, it eventually maintains *ex ante* efficiency of due diligence by debtor and optimal monitoring by creditor. Default, although not rare, is infrequently occurred in relation to total lending and borrowing transactions. A majority of cases encounters no default. It is normatively justified to retain such entitlement and enforcement in order to prevent default to occur in the first place. Alternatively speaking, it is economically better to have no default than having an efficient private workout.

4.2. Multiple Creditors, its Destructive Effect, and Corporate Insolvency

It is acceptable that entitlement and enforcement of a simple debt contract is efficient when there is only one creditor. In this section, an additional creditor is introduced and its consequences are examined.

4.2.1. Additional Setup

The setup changes in such a way that there are two creditors, C_1 and C_2, providing the loan to the debtor D. The total sum of the loan remains the same, B_t. β_1 is the proportion of C_1's loan and β_2 is the proportion of C_2's loan. $B_{1t} = \beta_1 B_t$ denotes the amount lend to D by C_1. $B_{2t} = \beta_2 B_t$ denotes the amount lend to D by C_2. $\beta_1 + \beta_2 = 1$. For simplicity, interest rate and loan terms are assumed to be equivalent for both.

Increasing Threat of Insolvency: *Free Riding Problem of Creditors' Monitoring*

Two creditors decide to monitor D at the level of μ_1 and μ_2 respectively. Costs of monitoring for C_1 and C_2 are $c_1(\mu_1)$ and $c_2(\mu_2)$ respectively. Note that functional forms of cost functions need not to be the same. What crucial now is monitoring by two creditors has externalities. Monitoring is sensed by the debtor in such a way that he only perceives whatever the larger level of monitoring. Algebraically, D will decide about his effort, e as $e = f\{\max(\mu_1, \mu_2)\}$, not $e = f(\mu_1 + \mu_2)$. This implies the free riding problem between two creditors – the monitoring effort exerted by one creditor can be enjoyed by another. For instance, if the monitoring of C_1 reduces the chance of D to be insolvent, C_2 need not to exert any effort on monitoring but her probability of being unpaid is reduced. This, hence, discourages creditors from monitoring their debtor. Unless the debtor's preference towards monitoring is that of Figure 4.2 a) – whereby any positive monitoring will make the debtor less diligent, the monitoring by creditors is sub-optimal. Less than optimal monitoring encourage the debtor to be less vigilant and less diligent. Hence, the possibility of insolvency increases.

Simply increases the number of creditor can increase the probability of insolvency due to externalities of monitoring providing that monitoring is beneficial at least to a certain range of its effort. If the debt contract is one-off, both creditors may restrict the size of their loans, charge higher interest rate (providing that it will not attract only risky potential borrowers), or both to curb their higher chance of losing. For simplicity, we assume that the amount of loan and interest rate remain unchanged.

4.2.2. Default and Insolvency Revisited: A Simple Prisoners' Dilemma and Its Consequences

Similar to the situation mentioned earlier in 4.1.4, the debtor defaults whenever he cannot service at least the interest expense, $V_I + \Delta Vp(e) < B_t i$ [$B_t i=(B_1+B_2)i$]. Both creditors can exercise their rights to liquidate D and get full repayment as long as $V_I + \Delta V \geq B_t i - L_{t-1}$ which makes the debtor solvent. Up to this point, the debtor is solvent. The liquidation of the debtor may be inefficient; the discussion would be discussed later.

The problem arises when the debtor becoming insolvent, $V_I + \Delta V < B_t i - L_{t-1}$: one creditor, at least, will not be fully repaid. To simplify, we assume that $B_t > L_t > B_{1t}(1+i)[=\beta_1 B_t(1+i)]$ and $B_t > L_t > B_{2t}(1+i)[=\beta_2 B_t(1+i) = (1-\beta_1)B_t(1+i)]$. Hence, $L_t - B_{1t}(1+i) < B_{2t}(1+i)$ and $L_t - B_{2t}(1+i) < B_{1t}(1+i)$. This means if the debtor is liquidated only either C_1 or C_2 can get a full repayment but not both. If C_1 exercises her rights first, she gets $B_{1t}(1+i)$ [this implies she feels indifferent between whether D is solvent or not]; otherwise she receives only $L_t - B_{2t}(1+i)$ [she is worse-off if D is insolvent]. Analogously, if C_2 exercises her rights first, she gets $B_{2t}(1+i)$; otherwise she receives $L_t - B_{1t}(1+i)$.

Since there is no restriction on how soon creditors can exercise their entitlements when a debtor defaults as long as there is a positive and objective proof of default, creditors will rush to claim the repayment with the relevant authority as soon as the default is detected. A first creditor to exercise her rights, under this setting, will get a full repayment. This causes creditors to rush to exercise their entitlements as soon as default is detected. Eventually, if both creditors act simultaneously, they have to split the realisation according to their relative claims and will get only $\beta_1 L_t$ and $\beta_2 L_t$ respectively. Suppose $B_1 = B_2$, each gets only ½ L_t.

With the same provision – no restriction on how soon creditors exercise their rights, assume that both decide and agree to allow the debtor to continue on private workout (providing the debtor also agrees to do so under conditions derived above). Assume further that the outcome from private workout covers full amount of debt with probability q. Both creditors will get $qB_{1t}(1+i)^2$ and $qB_{2t}(1+i)^2$ respectively after waiting for one period. Discounting into present values, we get $qB_{1t}(1+i)^2/(1+k_{c1})$ and $qB_{2t}(1+i)^2/(1+k_{c2})$ respectively where k_{ci} is the discount rate of creditor i. It is apparent that this circumstance can be regarded as prisoners' dilemma. Table 4.2 summarises outcomes from all possibilities.

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Table 4.2 Payoff Matrix of Two Creditors
exercising their Legal Rights when the Debtor Default

		Creditor 2	
		now	*later*
Creditor 1	*now*	$\beta_1 L_t$, $\beta_2 L_t$	$B_{1t}(1+i)$, $(1-\beta_1)(1+i)$
	later	$(1-\beta_2)(1+i)$, $B_{2t}(1+i)$	$\frac{q}{(1+k_{c1})}B_{1t}(1+i)^2$, $\frac{q}{(1+k_{c2})}B_{2t}(1+i)^2$

The dominant strategy of both creditors remains to rush to exercise their claims – an outcome of ordinary prisoners' dilemma game. An early creditor may be fully repaid but certainly at an expense of a late creditor who bares the loss. If C_1 [C_2] is first to exercise, she will get a full repayment, meanwhile C_2 [C_1] will get only $L_t - B_{1t}(1+i)$ $[L_t - B_{2t}(1+i)]$. This implies that C_2 (C_1) suffers the loss of $B_{2t}(1+i)-(L_t - B_{1t}(1+i))$ $[B_{1t}(1+i)-(L_t - B_{2t}(1+i))]$. This *ex post* consequence is damaging. At least one of them will definitely suffer some losses if another one acts more swiftly. If they are equally quick, both share the loss proportionate to the size of claims.

Given that both creditors are randomly selected (each has a probability of 50 percent) to be the first one to exercise the claim and gets full repayment, the expected loss of C_1 and C_2 are $\frac{1}{2}B_{1t}(1+i)-(L_t - B_{2t}(1+i))$ and $\frac{1}{2}B_{2t}(1+i)-(L_t - B_{1t}(1+i))$ respectively. These expected losses are fully aware by both creditors. Therefore, both of them will take these expected losses into account on their lending decision *ex ante*. As a result, lending decision may be more stringent in some ways including credit rationing, high collateral requirement, and strict assessment (rise in interest rate can induce more risky borrowers). Lending becomes more restrictive. Borrowing is more difficult.

Note that this dominant strategy will cause the debtor to be liquidated regardless of its real economic value. Each creditor's decision or choice may differ depending on subjective beliefs and perceptions. In some cases, liquidation is made prematurely where the debtor's company is potentially recoverable (i.e. the firm still has a positive value but less than its debt obligations) (Baird and Jackson, 1984; Jackson, 1982 and 1986; Warren, 1987). This situation poses a **common pool** problem, when creditors exercise their rights pre-emptively on debtors' assets (Cooter and Ulen, 1997). When the debtor firm's value is zero or negative, there is no need for any rehabilitation.

What we are interested in is when the debtor is potentially recoverable if creditors refrain from exercising their rights for another period. Since there is no legislation directly intervenes into this matter, whenever creditors exercise their existing legal entitlement, it will inevitably cause the debtor to be liquidated. This leaves a room for an additional legislation to play. That is why bankruptcy law is called for. Requiring another law is because of the chain of following reasons:

i) monitoring externalities and free riding problem: from the outset (even without insolvency), having more than one creditor causes less-than-efficient level of monitoring due to externalities of monitoring effort exerted by any of creditor. This discourages creditors' monitoring effort and may encourage the debtor to be less diligent (depending on his responsiveness toward monitoring);

ii) multiple creditors: when more than one creditor has a claim on a debtor's asset, insolvency of (or even default by) debtor causes them to rush to exercise their entitlement in order to ensure full repayment – if the debtor is insolvent, at least one creditor will incur some losses;

iii) transaction, renegotiation, and co-ordination costs: due to a large number of creditors, it is difficult and costly for them to co-ordinate and negotiate upon the debtor's insolvency, preventing them to reach an agreement on the debtor's future. This cost will drastically increase if creditors have unequal bargaining power, particularly from unequal pre-bankruptcy entitlements including security given by debtor causing different class of creditor (the irrelevance of security in 4.1.6. is no longer valid);

iv) uncertainty: since the debtor is insolvent (or very likely to be insolvent), its real value and recovery prospect are uncertain (at least from its management's perspective as well as creditors' ones). Dispersed creditors' beliefs about how to deal with insolvency also further complicate the matter. These dampen creditors' ability to reach efficient solution privately by causing negotiation costs to escalate;

v) inefficient outcome: as a result of i) to iii), it is apparent that the most efficient outcome of debtor's insolvency may be unable to attain, unlike when there are only one debtor vis-à-vis one creditor which will always have an efficient outcome.

4.2.3. Possibility of Private Workout

Nonetheless, we cannot say that private workout is impossible if there is more than one creditor. Private workout with two creditors is possible under some favourable conditions. If the environment they are in is complying with *Coase Theorem* whereby negotiation and transaction costs are negligible. However, such conditions are rare in the real world. Alternatively, the very same creditors and the debtor are facing this lending-borrowing relationship repeatedly. When insolvency occurs, they may start to realise that they could be better off by co-operating with each other on private workout given their discount rates are sufficiently low for them to wait another period. There are many factors contribute to success or failure of private workout with multiple creditors.

1. *Repeated Transaction*: a debtor and both of his creditors must 'play' this 'lending-borrowing game' repeatedly for sometimes to be able to realise potential future value of debtor's continuation which prevent the debtor to be prematurely liquidated. Repeated transaction of very same parties reduces transaction costs associated among them as well as makes reputation matters. When reputation matters, all parties will have tendency to co-operate when default occurs, instead of trying to scram down the debtor. It has benefit of threefold. First, it acts as an early warning system for every party involved. When the debtor defaults, or even before that, there will be communication or signaling among themselves; therefore, early corrective measures can be implemented before insolvency is actually occurred. If insolvency is already occurred, everyone can communicate and negotiate with each other without much difficulty. Finally, since they are engaging in this relationship for longer than one period and know each other well, disparity of information about real situation of debtor is relatively low which makes efficient settlement achievable.

2. *Sufficiently Low Discount Value*: all parties must possess sufficiently low discount value in order to allow future values to be significant and negotiation on future values become worthwhile. Anyone of them who has relatively high discount value will assess the possible expected future value to be relatively low and disengage oneself from renegotiation. Dispersal of discount values of each party also affects renegotiation. Their discount values should be comparable.

3. *Number of Creditors*: how many creditors have claims on a particular debtor is extremely crucial because transaction costs – as a function of creditors' number – will increase exponentially. Beyond a certain number of creditors, transaction costs outweigh benefit of private workout and prevent it to happen. Nonetheless, large number of creditor implies more dispersed perception towards debtor's prospect. Conflicting perception leads to disagreement and hamper efficient solution.

Conditions required for successful private workout in this scenario are as follow, modifying from (4.8) while (4.10) remains the same.

$$\frac{1}{(1+k_{c1})}\left[B_{1t}(1+i)^2 - c_1(\mu_1')\right] - c_1(\mu_1) > \frac{1}{(1+k_{c1})}\breve{R}_{c1}(1+r_f), \qquad (4.18)^{8}$$

$$\frac{1}{(1+k_{c2})}\left[B_{2t}(1+i)^2 - c_2(\mu_2')\right] - c_2(\mu_2) > \frac{1}{(1+k_{c2})}\breve{R}_{c2}(1+r_f), \qquad (4.19)^{9}$$

$$\frac{1}{(1+k_d)}\left[L_t + V_t' + \Delta V p(e') - B_t(1+i)^2 - c(e')\right] - c(e) > L_t - B_t(1+i). \qquad (4.10)$$

where k_{ci} is the discount rate of creditor *i*,

$c_i(\mu_i)$ and $c_i(\mu_i')$ are the cost of monitoring of creditor *i* in first and second period respectively,

$\breve{R}_{ci}$ is the repayment that creditor *i* gets if the debtor is liquidated in first period.

These three conditions must be satisfied simultaneously in order to make private workout happens. (4.18) and (4.19) also dependent on each other which further complicates the situation. Co-operative outcome is much harder to achieve compare to the case with one creditor and one debtor. The agreement between two creditors is needed first – (4.18) and (4.19) are simultaneously fulfilled. Then, the agreement between agreed creditor and debtor is also necessary to make private workout happens. Note that if any creditor does not satisfy with private workout, i.e. (4.18) or (4.19) is not fulfilled, it will revert to the outcome of prisoners' dilemma described in 4.2.2 and Table 4.2.

4.3. Bankruptcy Law: Origin and Purpose

Bankruptcy law now has a role to play when there is insolvency with more than one creditor. It has nothing to do with insolvency of a debtor with a single creditor whatsoever

[8] $\frac{1}{(1+k_{c1})}\left[\beta_1 B_t(1+i)^2 - c_1(\mu_1')\right] - c_1(\mu_1) > \frac{1}{(1+k_{c1})}\breve{R}_{c1}(1+r_f)$ or $\frac{1}{(1+k_{c1})}\left[(1-\beta_2)B_t(1+i)^2 - c_1(\mu_1')\right] - c_1(\mu_1) > \frac{1}{(1+k_{c1})}\breve{R}_{c1}(1+r_f)$

[9] $\frac{1}{(1+k_{c2})}\left[\beta_2 B_t(1+i)^2 - c_2(\mu_2')\right] - c_2(\mu_2) > \frac{1}{(1+k_{c2})}\breve{R}_{c2}(1+r_f)$ or $\frac{1}{(1+k_{c2})}\left[(1-\beta_1)B_t(1+i)^2 - c_2(\mu_2')\right] - c_2(\mu_2) > \frac{1}{(1+k_{c2})}\breve{R}_{c2}(1+r_f)$

because the single creditor knows best for herself what to do with the insolvent company. However, in a case where there are many creditors having claims on a debtor, dissolution of debtor can be premature and economically inefficient.

Its role is to establish the rule of law systematically determining how the loss from insolvency is minimised and distributed among creditors as well as preserving economic efficiency where possible. Ultimately, if possible, it should be able to eliminate such loss and repay all debt to every creditor.

Bankruptcy law must not aim for reviving the ailing debtor. Revitalising the firm is only the by-product of bankruptcy, not the objective and must not be presumed. Bankruptcy must prevent the destructive effect from non-bankruptcy enforcement when each creditor acts unilaterally. Then, it must manage the debtor's asset in the most efficient manner whereby the value of debtor is maximised or the loss of debtor is minimised. Finally, it must redistribute the loss of insolvent debtor to every creditor in the most efficient way (the most efficient scheme of loss sharing is discussed later). Redistribution of such loss must be compatible with non-bankruptcy entitlement in order to prevent inclination towards any particular scheme.

Such rule of law is a collection of rules to prevent an exercise of non-bankruptcy entitlement by creditors, rules or guidelines to manage the debtor's estate efficiently, and rules to redistribute the incurred insolvency to all creditors. It is supplementary to the original, non-bankruptcy entitlements that creditors and debtor gained prior to insolvency. Bankruptcy is a collective procedure where all creditors must participate. If it is not, any creditor may pursue her rights outside bankruptcy at the expense of other creditors.

A basic framework of bankruptcy law is to create an alternative set of entitlement which is not exactly the same as non-bankruptcy entitlements but compatible with them and substitute this alternative set for the original one. The original entitlements cannot be enforced – but essentially not abandoned – to prevent the destructive effect. The whole process of claiming original entitlements is replaced by an alternative method since non-bankruptcy enforcement can lead to premature liquidation. Generally, insolvency implies losses and those losses need to be redistributed among creditors to prevent excessive burden on less fortunate creditors. A debtor is guarded against such losses under the regime of 'limited liability' (Halpern, Trebilcock, and Turnbull, 1980).

Compatibility of bankruptcy and non-bankruptcy entitlements for creditors is called an absolute priority rule (APR).[10] Although there are many other bankruptcy rules governing the distribution of bankruptcy rights, other rules violate non-bankruptcy rights causing creditors and debtor to change their behaviour in borrowing; thus, making borrowing less attainable and more costly.[11] Non-compatibility or non-conformity, also, causes another problem called *'forum shopping'* (Baird, 1987; Baird and Jackson, 1984). This happens because each creditor has different rights and priorities before and after bankruptcy; some will be better off in bankruptcy while some other will be better off outside. Consequently, some creditors will try to enter bankruptcy to get more than what they entitle to outside bankruptcy. On the opposite, some creditors will try to avoid bankruptcy and remain with their original entitlement. Forum shopping undermines the participation of creditors in bankruptcy which further makes bankruptcy ineffective – not being a collective procedure.

Purpose of bankruptcy legislation is not to revive the debtor's company but to systematically manage insolvency of the debtor effectively and efficiently whereby the debtor is not prematurely liquidated, its asset is maximised (or the size of insolvency is minimised), and no creditor suffers from excessive loss from insolvency. Systematic management of insolvency is required because destructive effect of having many creditors mentioned above. Thus, bankruptcy legislation is relevant only when there is more than one creditor having a claim on the debtor.

Rescuing the debtor using bankruptcy legislation, therefore, is not primary but it should only be encouraged whenever it is the deployment method that maximises the debtor's value. Many academic works and research in this area have mistaken that the survival of the debtor is a major domain of bankruptcy law.

To summarise, the purpose of bankruptcy law is as follow:

1. To avoid undesirable and destructive effects on the debtor's asset that resulted from unilateral and uncoordinated exercise of creditors' entitlements causing the debtor to be

[10] *Absolute priority rule* (APR) is the bankruptcy rule that respects and preserves original, non-bankruptcy, rights or entitlements of creditors. There are other rules used in bankruptcy including *proportionate priority rule* (PPR) or *equal priority rule* where all creditors are repaid proportionate to their debt's face value; *me-first rule* where creditors are repaid in chronological order until debtor's asset exhausted; *first-come-first-serve rule* (FCFS) where creditors who pursue their repayment earlier receive full-repayment until debtor's asset exhausted.

[11] Warren (1987) favours *PPR* because it distributes debtor's loss to creditors fairly; Fama and Miller (1982), White (1984, 1989) prefer *Me-First Rule*; Longhofer (1998) suggests *FCFS* as it increases *ex ante* incentive for debtor to be more diligent and efficient; Cornelli and Felli (1996), Longhofer (1997) favour APR in order to secure the compatibility between bankruptcy and outside procedures.

prematurely liquidated and/or his assets to devalue rapidly unnecessarily, suspension of such rights and enforcement is required. In addition, the alternative, but compatible, set of entitlement under bankruptcy regime should be substituted to ensure that all creditors are in the procedure.

2. To manage the debtor's assets in such a way that its value is maximised or its level of insolvency is minimised. The management of debtor's asset is ranging from liquidation to revival depending on its fundamentals and economic viability. Managing debtor's asset can be somewhere between these two extremes. Again its difficulty is also varied from a simple debt rescheduling – whereby creditors simply allow the debtor to payback the debt late – to a completed overhaul of debtor's company – by replacing the management team and restructuring the whole company.

Hence, it is crucial for bankruptcy law to direct the debtor's assets into the highest valuation without adhering to a particular mode of deployment. All methods of deployment should be made available to any company seeking bankruptcy procedure. In reality, bankruptcy law in many countries explicitly separate between liquidation (termination of debtor) and reorganisation (continuation of debtor) including US, UK, and, even, Thailand. Such separation induces creditors' biases making them to have preferences over one deployment method (that maximise ones' return or minimise ones' loss) over others – 'forum shopping.' For instance, if having a debtor liquidated gives highest return (or lowest loss) to one creditor, she may apply for bankruptcy with liquidation (US: Chapter 7, UK: Winding-up, Thai: Liquidation); meanwhile if having the same debtor reorganized gives another highest return to another creditor, she may apply for bankruptcy with reorganisation (US: Chapter 11, UK: Administration, Thai: Reorganisation). Further separation causes divergence of creditors' perception which is contradictory to bankruptcy primary purpose of avoiding premature liquidation.

4.4. Efficiency of Bankruptcy Law

Efficient bankruptcy legislation should be able to achieve the following economic goals.

Allocative Efficiency

The bankruptcy procedure should be able to direct the debtor's assets to its best utilisation regardless of deployment method. Generally, there are two extreme methods of deployment: liquidation and reorganisation. Variations between both ends are possible.

Liquidation means the debtor's company should be dissolved and all assets are sold to the third parties. The Company would no longer exist. However, there is another possibility when the debtor's company is sold as a whole which is called 'going concern.'

Corporate reorganisation or rehabilitation or restructuring implies the rearrangement of debtor's company in term of its operational, financial, and/or managerial structures including terms and conditions of existing liabilities with its creditors in order to increase its value (or net worth). In other words, reorganisation is an attempt to increase the debtor's net worth by the mean of internal adjustment and reduce the debtor's liabilities by the mean of renegotiation. Successful reorganisation indicates the reorganised net worth exceeds the reorganised liabilities. The debtor's existence remains unchanged.

Some companies worth more liquidated. Some companies worth more reorganised. It depends on the debtor's company structural soundness and future prospect. Efficient bankruptcy legislation must choose the deployment method that maximises the [present] value of debtor. A law that directs the debtor into liquidation (reorganisation) even though reorganisation (liquidation) gives higher valuation is said to be inefficient.

With this concept, we can say that a law with only one deployment method is definitely inefficient but we cannot say that a law with only reorganisation is more efficient than the one with only liquidation. Efficiency of the law partly lies on the balance between these two methods (the remaining lies on how the debtor reacts to the incentive given by the law).

Distributive Efficiency

Once the most efficient deployment is (assumed to be) selected, the next step is to redistribute the realised value of the debtor to all creditors. It is crucial for the law to redistribute such value in a way that causes minimal effect on creditors' pre-bankruptcy rights and entitlements. The reason is the law should not offer a loophole allowing creditors to seek benefit in- or outside bankruptcy. If it is more favourable for creditors to be outside bankruptcy, bankruptcy law will make creditors unwilling to participate and will try to avoid it. On the other hand, if it is more favourable for creditors to be inside bankruptcy, creditors will prematurely initiate bankruptcy procedure. Alternatively speaking, it should not give any incentive for creditors to prefer bankruptcy over non-bankruptcy and *vice versa.*

Distributive and allocative efficiency is related but not interdependent. The distribution under liquidation is straightforward. The realisation of value from liquidation is pecuniary (monetary), tangible, and definite in a real money term. On the contrary, realisation under reorganisation is non-pecuniary, intangible, and indefinite since the debtor's company is still operational and not all assets are auctioned. What creditors get is a new set of rights and entitlements resulting from reorganisation which its value can vary according to the debtor's performance in the future. Hence, the element of uncertainty is accompanying with reorganisation while liquidation has none.

Managerial and Monitoring Efficiency

Since insolvency is an indicator of inefficiency, it could be caused by inefficient monitoring by creditors, inefficient management of debtor, external factors, or the combination of all. It would rather be avoided where optimally possible. Since insolvency is inevitable, avoiding it at all cost is inefficient – some inefficient firms should be removed – but it should be optimally minimised through efficient management, monitoring, and operation which can be achieved via correct incentives provided by the law. The law must provide the incentive for creditors to optimally monitor their debtors as well as the incentive for debtor to manage his company efficiently (i.e. do not behave opportunistically) minimising the probability of being insolvent.

Allocative and distributive efficiencies are *ex post* efficiencies – dealing with when the debtor is already (or at the verge of being) insolvent. Resource utilisation efficiency is *ex ante* efficiency – dealing with the company that is solvent. Basically, the tradeoff between *ex post* and *ex ante* efficiencies is inevitable (White, 1994). *Ex post* efficiency can be improved only at the expense of *ex ante* one and *vice versa.* To prevent insolvency (i.e. to achieve *ex ante* efficiency), the law must be relatively tough or harsh in order to deter an entry to bankruptcy process (i.e. impose substantial loss to the debtor making bankruptcy uninteresting). However, when insolvency is actually occurred, the tough bankruptcy law deters participation of debtor. The debtor and its creditors may end up with inefficient agreement outside bankruptcy to prevent excessive loss imposed by the law. Creditors may try to initiate the process too soon since the legislation is on their side. Since the tough law is deterrent from debtor's perspective, there, moreover, would be high tendency of debtor to turn around its company by high-risk-high-return attempt that could further harm its total value.

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Analogously, to improve *ex post* efficiency, it is crucial that co-operation of debtor is assured and all possibilities of debtor's deployment must be considered. The law must be relatively soft or pro debtor to attract the debtor to participate in the process and to prevent the debtor to engage in any harmful act against its value. Since the soft bankruptcy law is attractive to the debtor, the debtor may want to enter the process too early when facing financial difficulties and may be less vigilant, less diligent, less precarious and more aggressive doing his business. Table 4.3 summarises pros and cons of *ex post* and *ex ante* efficiencies of bankruptcy law.

Table 4.3. *Ex Post* and *Ex Ante* Efficiency *versus* Deployment Methods in Bankruptcy Law

Deployment Method	Economic Efficiency	
	Ex ante	*Ex post*
	✓ • relatively efficient • high punishment from threat of being liquidated	✗ • relatively inefficient • liquidation precludes other more efficient methods
	✗ • relatively inefficient • debtor is less diligent due to high possibility of survival after being insolvent	✓ • relatively efficient • debtor's assets (resources) has opportunity to be utilized in most efficient method

It is apparent that two efficiencies cannot be achieved simultaneously. Therefore, the following question is that how to attain optimality or the right balance between them. In other words, the question of best bankruptcy procedure is irrelevant; the one to be considered is optimal bankruptcy procedure. Subsequently, it is necessary to define optimal bankruptcy law or scheme. Note also that *ex ante* efficiency is about the debtor's managerial behaviour and *ex post* efficiency is about the debtor's asset.

Optimal bankruptcy law is a bankruptcy procedure that does give incentives to efficient debtor to continue to be solvent and inefficient debtor to be insolvent *ex ante*. If insolvency is already happened, it must allow efficient-but-unfortunate debtor to continue or to be reorganised but it must liquidate inefficient debtor. At the same time, the law must give incentives to creditors to keep efficient debtor solvent and prosecute inefficient debtor *ex ante*. If insolvency is inevitable, the law must assist creditors to choose the deployment of debtor that gives the highest valuation.

To be precise, before insolvency occurs, the debtor should maintain his company's efficiency without incurring excessive and costly effort; creditors should monitor the debtor's company without incurring too high cost of monitoring. In addition, there should be no excessive restriction on borrowing. Any company fails to maintain its efficiency will definitely slip into insolvency *ceteris paribus*.

Once insolvency is materialised, the debtor should not behave opportunistically to turn around his company; creditors should not rush for any solution that could give them less than what they could actually get. Moreover, creditors should cooperate with each other in order to seek the solution that gives them the highest value of debtor's company. When the best deployment is selected, redistribution or repayment to creditors must not make them worse off than what they will get in an absence of bankruptcy law.

Hence, it is crucial to examine and understand behaviour of all parties involved in lending-borrowing relationship, before and after insolvency has occurred. Once such behaviours are considered, bankruptcy law can be optimally designed at least in theory. Variations in creditors and debtor behaviours, prior and after insolvency, require different balance between *ex post* and *ex ante* efficiencies. An optimal procedure in one setting may not be optimal in other settings. Alternatively speaking, optimal bankruptcy law is not universal depending on how creditors and debtor respond to insolvency, threat of insolvency, and legal incentives.

4.5. Bankruptcy Cost and Managerial Behaviour in Reorganisation

In this section, three related topics are considered. We assume that insolvency is already apparent. First is the bankruptcy cost that involved parties imposed onto the economy if the ways they behave have departed from efficiency – *ex ante* cost. Second is the cost of bankruptcy procedure that imposed onto involved parties by bankruptcy legislation including legal fees, time value, and all other transaction costs. In other words, this is *ex post* bankruptcy cost. Third is debtor's managerial bias in reorganisation that being influenced by such costs.

Ex Ante Bankruptcy Cost

This cost concerns whatever costs occur before insolvency is actually happened. Primarily, it is induced by inefficient behaviour of debtor's management which can be considered as a loss due to increasing risk of value-decreasing investment resulting from a management's attempt to recover the firm. It could also be the cost of over investment of creditors' monitoring effort. Furthermore, this cost includes indirect social costs in term of unnecessary higher borrowing costs (in respond to the higher risk) resulting from bankruptcy-induced distortion (Weistart, 1977; White, 1998).

White (1983) formalises the theoretical model to measure *ex ante* bankruptcy cost if the law provides wrong incentive and leads to inefficient choice. The model is based on US bankruptcy procedure whereby the debtor's management has the right to choose its deployment method in insolvency. Note that management and/or firm's shareholders (equity holders) are shielded against insolvency to some degree by limited liability. Hence, they are liable for debts up to the amount they invested into the firm. The model is as follow.

The model is a two-period model, at time t=1 and t=2. Assume the firm is already insolvent. There are three possibilities of deployment: liquidation, reorganisation, and continuation[12] outside bankruptcy. Values of each choice are L, R, and C respectively. Since no information is available concerning the effect of a firm's bankruptcy process on its value, it can be assumed that R = C. Transaction costs are T_q, T_r, and 0 (debtor and its creditors internalise all costs) respectively. Assume further that the firm's earnings at t=1 and t=2 are P_1 and P_2+g respectively. g is a normally distributed random variable denoting uncertainty with zero mean 0, and variance σ_g^2. Thus, $C = P_1 + P_2 + E(g) = P_1 + P_2 + 0 = P_1 + P_2$. The firm has to repay unsecured debt U_1 at t=1 and U_2 at t=2. At t=2, it has secured debt S which is riskless as the debt is tied with asset which value is equal to S. Interest rate and discount rate are assumed to be zero. Note that from the assumption R = C, the returns are R – T_r which is strictly less than C as long as T_r is positive. This implies that whenever liquidation is not the first best, continuation outside bankruptcy (or private workout) is strictly superior than reorganisation which is similar to the conclusion from our model above.

Management is assumed to maximise the value of equity (no managerial discretion). At t=1, the management will maximise the equity's value under 3 circumstances:

Liquidation: $$max\,[(L - T_q - S - U_1 - U_2), 0] \qquad (4.20)$$

The absolute minimum value of equity under liquidation is 0 because of limited liability. Otherwise, equity holders receive whatever remaining from all other claimants. The firm dissolves in this period.

Continuation:

To be able to continue, U_1 must be repaid. If $P_1 > U_1$, the firm is solvent and does not need any procedure to turn around. If $P_1 < U_1$, the firm must borrow $U_1 - P_1$ to satisfy its obligation in order to continue. However, White (1983) assumes that the lender will lend only if the loan is secured. Thus, $U_1 - P_1 \leq L - T_q - S$. In other words, something must be leftover after previous secured debt is paid off. In addition, this act

[12] Continuation is the same as private workout in our terminology.

implies this new creditor will jump ahead of other unsecured creditors. Consequently, $S^* = U_1 - P_1$.

At t=2, the firm may continue or liquidate depending on the earning P_2.

$$P_2 + g = U_2 + S + S^*. \tag{4.21}$$

Considering (4.21), if *l.h.s.* $\geq$ *r.h.s.*, the firm recovers. If *l.h.s.* $<$ *r.h.s.* , the firm must be liquidated since it cannot satisfy its obligation. g that make *l.h.s.* = *r.h.s.* is called b. Therefore, for successful continuation, the firm value is

$$\int_b^\infty f(g)[P_2 + g - U_2 - S - S^*]dg\,, \tag{4.22}$$

where $f(g)$ is the probability density function of g.

Reorganisation:

White (1983) argues that it is normally observed in reorganisation that unsecured debts are forgiven [similarly in continuation, unsecured debts can be forgiven but White did not mention it]. Assume that unsecured debt is reduced to r per cent of original face values. There is a transaction cost of T_r. At t=1, the firm must pay $T_r + rU_1$ to be able to continue. Analogously, if $P_1 \geq T_r + rU_1$, reorganisation continues. Otherwise, $P_1 < T_r +$ rU1 and the new loan of $T_r + rU_1 - P_1$ must be acquired. Similarly, the new loan must be secured whereby $T_r + rU_1 - P_1 \leq L - T_q - S$. $S^{**} = T_r + rU_1 - P_1$.

At t=2, the firm may continue or liquidate depending on the earning P_2.

$$P_2 + g = rU_2 + S + S^{**}. \tag{4.23}$$

For (4.23), if *l.h.s.* $\geq$ *r.h.s.*, the firm is successfully reorganised. If *l.h.s.* $<$ *r.h.s.*, the firm must be liquidated. g that equalise *l.h.s.* with *r.h.s.* is called b'. Therefore, for successful reorganisation, the equity value is

$$\int_{b'}^\infty f(g)[P_2 + g - rU_2 - S - S^{**}]dg\,, \tag{4.24}$$

where $f(g)$ is the probability density function of g.

Thus, the management will rationally choose among three alternatives of equity value given by (4.20), (4.22), and (4.24) whichever is largest because it will maximise the value of equity.

From the social or efficiency perspective, value of equity is irrelevant; only total valuation of each deployment is matter. Total valuations of each deployment are as follow:

Liquidation:	$L - T_q$,
Continuation:	C,
Reorganisation:	$R - T_r$

It is efficient and socially desirable to choose among these three alternatives whichever the greatest because it is the deployment that maximise the value of the firm resources not firm's equity, i.e. $max[L - T_q, C, R - T_r]$.

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White (1983) states that it is not always coincide that the management's choice is socially desirable. *Ex ante* bankruptcy cost is defined as the difference of value between the socially desirable and the management-selected deployment. *Ex ante* cost can be summarised in Table 4.4 below.

Table 4.4 *Ex Ante* Cost of Bankruptcy

when Debtor's Management choose among Possible Deployment Methods

Deployment Method	**Management's Choice**		
	Liquidation	*Continuation*	*Reorganisation*
Liquidation	**0** **(Efficient)**	$L - T_q - C$	$L - T_q - (R - T_r)$
Continuation	$C - (L - T_q)$	**0** **(Efficient)**	$C - (R - T_r)$
Reorganisation	$R - T_r - (L - T_q)$	$R - T_r - C$	**0** **(Efficient)**

Note that the cost is always positive since the efficient choice yields higher value that the selected one.

According to this analysis, there is no guarantee to ensure that the efficient deployment will be always selected. It is partly due to limited liability and equity's characteristic of being residual claimant. Efficient bankruptcy regime should minimise such cost, i.e. trying to align the management's choice of deployment with the socially desirable one.

What is the limit of *ex ante* cost? Who is responsible for *ex ante* cost? White (1983) further illustrates these by using the same model. Suppose the efficient choice is liquidation and the second best is continuation outside bankrutpcy: $L - T_q > C$. However, assume further that the management of debtor prefers continuation to liquidation: (4.22) > (4.20). Thus,

$$L - T_q - C < \int_b^\infty f(g)[P_2 + g - U_2 - S - S^*]dg - (P_1 + P_2 - S - U_1 - U_2). \qquad (4.25)$$

Let $F(b)$ being a cumulative probability of liquidation in t=2 given continuation in t=1. Hence $1 - F(b) = \int_b^\infty f(g)dg$ is a cumulative probability of having high g (i.e., g which allows the firm to continue).

Assume further that u_b is the expected value of g that makes the firm insolvent at t=2 (i.e. $g < b$) and u_c is the expected value of g that makes the firm solvent at t=2 (i.e., $g \geq b$). Since $g \sim (0, \sigma_g^2)$, the conditional means of u_b and u_c are related by $u_c[1 - F(b)] = -u_b[F(b)]$. Thus, (4.25) can be rewritten as

$$L - T_q - C < -F(b)[P_2 + u_b - U_2 - S - S^*]. \qquad (4.26)$$

The *l.h.s.* of (4.26) is *ex ante* bankruptcy cost. The *r.h.s.* is "the expected value of the shortfall in earnings relative to liability" in a worse case scenario whereby the firm cannot survive in $t = 2$ (White, 1983). In other words, the *r.h.s.* consists of the probability of liquidation times the net earnings in t=2.

Analogously, for a situation where liquidation is most efficient and reorganisation is a second best but the debtor's management selects reorganisation, the *ex ante* bankruptcy cost is determined by

$$(L - T_q) - (R - T_r) < -F(b')[P_2 + u_b' - S - S^{**} - rU_2] + (1-r)(U_1 + U_2). \qquad (4.27)$$

The condition is very similar to (4.26): the *l.h.s.* of (4.27) is *ex ante* bankruptcy cost; the first term on *r.h.s.* is the "expected value of the shortfall in earnings relative to liability;" and the second term on *r.h.s.* is the total unsecured debt forgiveness.

Therefore, it can be concluded that *ex ante* bankruptcy cost is primarily borne by unsecured creditors. Its limit depends on earnings after continuation or reorganisation (P_2, earnings at t=2), earning uncertainty that makes the firm solvent (b or b'), level of secured debt (S), initial degree of insolvency ($U_1 - P_1$ for continuation or $T_r + rU_1 - P_1$ for reorganisation) {these are equivalent to level of secured debt created during continutation (S^*) or reorganisation (S^{**})}, and level of debt forgiveness ($(1-r)(U_1+U_2)$, if in reorganisation).

Level of secured debt, initial degree of insolvency and probability of bankruptcy in t=2 are limiting *ex ante* cost. On the contrary, the level of debt forgiveness from unsecured creditors increases *ex ante* cost. *Ceteris paribus*, for any positive $0<r<1$, (4.27) > (4.26) implying that reorganisation allows higher *ex ante* bankruptcy cost than continuation.

According to White (1983), bankruptcy decision made by debtor's management is more efficient if there is a high level of secured debt, high level of insolvency, and high probability of insolvency in forthcoming period – providing US bankruptcy system which allows only the debtor to file for reorganisation. This also implies that whenever there is a high proportion of unsecured debt, it is likely for debtor's management to make an inefficient choice of deployment. Note the second term on *r.h.s* of (4.27) implies higher *ex ante* bankruptcy cost in reorganisation than in continuation for a comparable circumstance.

This further concludes that any bankruptcy regime – particularly the one allowing only debtor to file for bankruptcy and/or reorganisation – inherits a managerial bias that imposes *ex ante* cost of reaching inefficient deployment. There is no way to ensure that the efficient deployment will be chosen under any legal priority rule (White, 1983).

Implications on Involved Parties' Behaviour

White's Model (1983), notwithstanding, has a significant implication on involved parties' behaviour. The equity values are derived above, (4.20) – (4.24). It is clearly shown that debtor's management may prefer inefficient choice. Meanwhile the total values of debtor under each deployment are $L - T_q$, C, and $R - T_r$ respectively (see above). These total values are generally coincided with creditors' preferences since the efficient choice will always maximise creditors' receipts. In other words, under insolvency, creditors always want to share a biggest cake available. Therefore, it can be preliminary presumed that creditors' choice should have lead to the efficient outcome.

However, it is worth noting some crucial points under White's (1983) setup. There is a new class of creditor created under continuation and reorganisation. This class is secured, S^* and S^{**} under continuation and reorganisation respectively. Since it has a highest priority to be repaid (no matter what happens), creditors of this class may prefer continuation and/or reorganisation to liquidation even though liquidation is efficient because they know that they can jump the queue for repayment.

Ex Post Bankruptcy Cost

From the beginning, the cost of bankruptcy proceedingss has not been taken into account. In the real world, even formal lawsuits are costly. This cost plays a crucial role in bankruptcy procedure because it is what involved parties see as another factor while deciding between formal and informal insolvency solution. *Ex post* transaction costs consist of i) pecuniary or tangible costs imposed by the structure of bankruptcy system including various charges and legal fees; ii) implicit or intangible transaction costs which are non-pecuniary including time value, negotiation cost, and hold up problem. Assume that returns of all deployment are equal, fundamentally, whichever deployment having lowest transaction, that one would be efficient, *ceteris paribus*. If the transaction cost of bankruptcy (liquidation and reorganisation) exceed the transaction cost of private workout, private workout is efficient. On the opposite, if the transaction cost of private workout outdoes the transaction cost of bankruptcy proceedingss, bankruptcy is efficient. Within bankruptcy, if the transaction cost of liquidation is lower [higher] than reorganisation, liquidation [reorganisation] is efficient.

Using White's (1983) model above, from debtor's perspective, higher transaction cost of liquidation makes itself unattractive. Moreover, it further makes continuation and reorganisation less attractive too.

However, its consequence is not that simple. We know from our model that the solution from private workout is always efficient but the solution may be unattainable due to excessive transaction costs (thus, no solution). Bankruptcy, on the contrary, always has a solution. But the solution from bankruptcy may differ given identical circumstances. Bankruptcy proceedingss may lead to the solution equivalent to private workout or the totally opposite outcome. In theory, bankruptcy must kick in whenever private workout cannot reach solution or breaks down. In practice, no one knows whether private workout has already broken down or at least is very costly to know or cannot be verifiable to a third party (for example, bankruptcy court). Thus, initiation of bankruptcy proceedingss may or may not be efficient.

Generally, the transaction cost of private workout varies from case to case depending on perceived uncertainty, number of creditors, and debtor's resistance, as well as the structure or the design of the bankruptcy law itself. Lower transaction costs mean higher probability of successful private workout. If the cost of bankruptcy is too high, although efficient solutions are guaranteed but there are also a lot of cases without solution.

4.6. Optimal Bankruptcy

Bankruptcy law is most efficient when it is *ex post* and *ex ante* efficient simultaneously. However, White (1998) argues that such ideal condition does not exist. When the amendment of the law is trying to improve one goal, it diminishes the efficiency of another goal. Liquidation-only bankruptcy law provides a very strong *ex ante* incentive for preventing the distress but it has low *ex post* efficiency. The inclusion of reorganisation process, however, improves *ex post* efficiency but weaken the *ex ante* incentive. Therefore, we should rather pursue for optimality of bankruptcy law whereby the law should induce a correct balance among efficient reallocation of debtor's assets after the firm is insolvent, efficient redistribution of assets' realisation to every claimant of the failing firm and efficient incentive for insolvency avoidance (debtor to be diligent and creditor to optimally monitoring her debtor) before the financial distress occurs. The correct balance will differ from country to country depending on each country's economic fundamentals (Stiglitz, 2001).

There are many attempts to construct an optimal bankruptcy regime including models by Berkovich, Israel, and Zender (1998) assuming bankruptcy is mandatory; Povel (1999) assuming bankruptcy is endogenous of debtor-creditor's bargaining; Schwartz (1997), and Bebchuk (1988) and its variant of Aghion, Hart, and Moore (1992) using options. Berkovich, Israel, and Zender (1998) and Povel (1999) use models with a single creditor vis-à-vis a single debtor; thus, they are all irrelevant since we have proved earlier that bankruptcy does matter only when there are more than one creditor. However, Povel (1999) does raise an interesting issue of compulsory bankruptcy – compulsory bankruptcy creates inefficiency which does agree with our findings mentioning a free choice between private workout and formal bankruptcy.

4.6.1. Schwartz's Model: Mandatory Legal Rules under Bankruptcy

Schwartz (1997) devises the model to explain the drawback of having mandatory legal rules in bankruptcy law. He believes that bankruptcy law should allow contracting parties to contract on their own procedures (i.e. private workout) while the legal rules in the statue could serve as the default rules when pre-specified procedure is unattainable or circumstantial facts do not suit with such pre-specified procedure.

Schwartz (1997) uses a five-period model of a firm with two creditors, C_1 and C_2 (assumed to lend at the same time). In Period 0, the firm tries to borrow from the creditor k to finance the project and promise to pay back in Period 2. The project starts in Period 1. In Period 2 if the firm is solvent, it pays the creditor back k. If it is insolvent, it chooses the bankruptcy procedure in Period 3. Bankruptcy payoff is realised in Period 4. The return from investment is a function of the project, the type of bankruptcy procedure, and a stochastic state variable θ, which can be realised at Period 2. However, contracting parties cannot contract on θ, but there is a verifiable signal v which can be contracted on. v is assumed to be directly correlated with θ.

There are two bankruptcy options in the statue: reorganisation, R, and liquidation, *L*. Suppose the contract that contains clauses regarding insolvency is allowed. Both procedures cannot be optimal in every *ex post* state, depending on which can deliver the highest value of the insolvent firm. For some state, R is efficient, while *L* is efficient in some others. When creditors prefer different procedure from their debtor, it is very likely that the inefficient procedure will be selected.

There are three states of the world. The firm is solvent with probability q, insolvent in either θ_R or θ_L with *ex ante* probability p_R and p_L respectively ($p_R + p_L = 1 - q$). Posterior probability of θ_R is increasing in v but of θ_L is decreasing in v. If it is solvent, the return is y_g. If it is insolvent, the return is $y_j = E[\, r \mid a_j]$, where r is the monetary return from bankruptcy and j is a type of the bankruptcy procedure, either R or *L*. In bankruptcy, the action that maximises the total benefit is a_R in θ_R and is a_L in θ_L. See Figure 4.5.

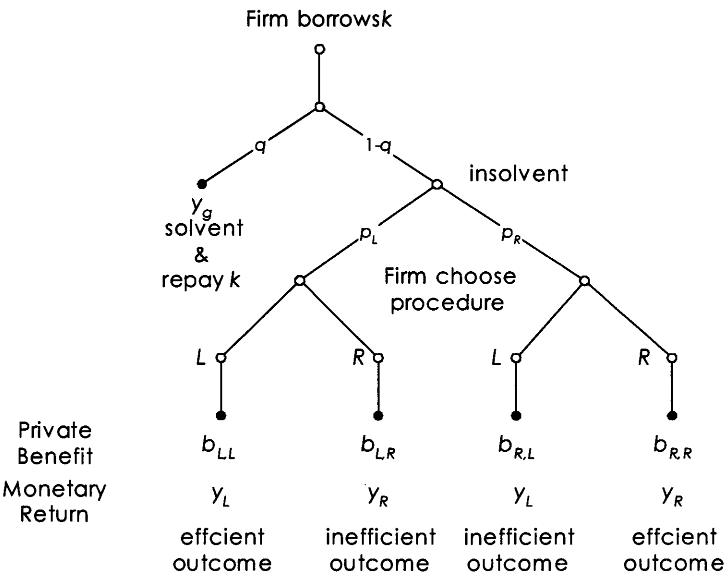

Figure 4.5. Firm's Decision Tree in Schwartz (1997)

All parties are assumed to be risk neutral. A utility function of creditors is $U_C(r, a) = r$. That is creditors want to maximise the monetary returns only without considering the action of the firm. While the firm's utility is $U_F(r, a) = r + b(a, \theta)$, where b is a private benefit as a function of a and θ (i.e. higher θ implies higher b).

Following assumptions are made to ensure the conflict between creditors and the firm: the firm always prefer R as it gives higher b regardless of the actual state of the world [I_i: $b_{L,R} > b_{L,L}$; I_{ii}: $b_{R,R} > b_{R,L}$], i.e., if the actual state is θ_L and L is optimal, the private benefit b of choosing R is greater than L, similarly if the actual state is θ_R and R is optimal, the private benefit of choosing R is greater than L, thus, the firm always choose R. Creditors prefer the procedures that maximise the return in each circumstance (prefer the action that correctly corresponding to the state of the world) [II_i: $y_{L,L} > y_{L,R}$; II_{ii}: $y_{R,R} > y_{R,L}$].

The condition that satisfying the participation constraint for creditors when the correct procedure is always chosen:

$$qy_g + (1 - q)(p_R y_{R,R} + p_L y_{L,L}) \geq k. \tag{4.28}$$

Assuming there are three alternatives for choice of bankruptcy procedures.

Renegotiation-Proof Contract

In this alternative, the debt contract specifies the optimal procedural choice by compensating the firm for its loss of private benefit when it has to choose efficiently. The compensation (or bribe), s_v, is proportional to the return of that procedure, y_j ($s_v \in (0, 1)$). Thus, the contract will be efficient if it specifies an efficient plan:

$$y_{R,R} + b_{R,R} > y_{R,L} + b_{R,L} \qquad \text{in } \theta_R$$

and

$$y_{L,L} + b_{L,L} > y_{L,R} + b_{L,R} \qquad \text{in } \theta_L.$$

The firm will offer such contract if its incentive compatibility constraint is satisfied, i.e.,

$$s_v y_{L,L} + b_{L,L} \geq s_v y_{L,R} + b_{L,R}, \tag{4.29}$$

which means the firm's return when it chooses the efficient procedure should be higher than when it chooses the inefficient one.

Hence, the optimal s_v, $s_v^* = (b_{L,R} - b_{L,L})/(y_{L,L} - y_{L,R})$. (4.30)

Knowing this beforehand, if the firm pays z ($\leq y_g$) under bankruptcy, creditors would accept this contract if and only if their participation constraint are met, i.e.,

$$qz + (1 - q)(1 - s_v^*)(p_R y_{R,R} + p_L y_{L,L}) \geq k. \tag{4.31}$$

That is, creditors must expect to earn back their loan, at least, after pay some of their returns to bribe the firm to choose the correct procedure.

Renegotiation

If the contract does not *ex ante* specify the clauses to deal with insolvency (e.g., about the compensation), the firm can still choose the optimal procedure when the law grants it the highest bargaining power. Hence, surplus from correct deployment is captured by the firm. There is no transfer to bribe the firm, $s_v^* = 0$.

In this case, the condition for creditors' participation constraint becomes

$$qz + (1-q)(p_R y_{R,R} + p_L y_{L,R}) \geq k, \tag{4.32}$$

which means that the creditors' expected return should cover their loan. Note that the second term indicates the firm always chooses R whatever the actual state of the world is. However, the firm will choose the efficient procedure as it is able to capture the surplus from correct decision which outweighs the loss in private benefit *b*.

Partially Reorganisation-Proof Contract

This kind of contract involves compensation conditional on the verifiable signal *v*. If the observed *v* is high, $s_v^* = 0$ because it is very likely that the actual state will be θ_R which implies R is likely to be the efficient choice and the firm always wants to continue. If the observed *v* is low, $s_v^* > 0$ to induce the firm to choose *L* as the θ_L is more likely and the *L* procedure tends to be efficient.

So, given λ_R and λ_L are probabilities that *v* is high and low respectively, the creditors' participation constraint is

$$qz + (1-q)\{p_R[\lambda_R y_{R,R} + (1-\lambda_R)(1-s_v^*)y_{R,R}] + p_L[0 + (1-\lambda_L)(1-s_v^*)y_{L,L}]\} \geq k. \tag{4.33}$$

Three types of contracting provide correct incentive to choose the efficient procedure. Nevertheless, all contracts generate lower return than what should be if the firm finances itself (no borrowing) since contracting is costly and contracting on insolvency is even more costly due to its possibility of non-occurrence. Hence, there is an under-investment problem. Schwartz, then, suggests that the law should allow contracting parties to contract on procedures regarding insolvency, not forcing them to use the state-provided regime single-handedly. The implication of Schwartz (1997) is twofold: the law should recognise private agreement between debtor and creditors and the violation of original entitlement is acceptable (bribe is allowed).

Our findings does agree with Schwartz's result that bankruptcy law should not be mandatory as it impairs the optimality of other informal bankruptcy procedures that were invented and have been agreed by contracting parties. It could be more beneficial, therefore, if the law recognises 'privately pre-specified bankruptcy rules' in a contract and enforce it. With a mandatory bankruptcy system, such private (and believed to be optimal) rules cannot work. Either contracting parties can shirk on what they have had agreed previously and enter the formal procedure if the latter gives higher return. It can be further implied that liquidation and reorganisation must not be separated into different regimes since both are two default options of bankruptcy to be selected upon whenever private contracting is unattainable. This also agrees with our recommendation earlier.

Notwithstanding, Schwartz (1997) describes possible obstacles for such contracting. There are i) sequentiality: when creditors lend at different time; ii) seniority of debt; and iii) conflicting preference over procedures. He demonstrates that first two problems are not severe and the contract can circumvent them as long as the absolute priority rule is respected. Preferences of creditors over available procedures, hence, pose a serious obstacle to contracting, especially when the debt is secured and non-lending creditors involved (e.g., trade partners do not want the firm to liquidate – like a case of Rover Car Plc). He concludes that the mandatory bankruptcy rules should be lifted and the state-provided bankruptcy proceedings could serve as the default rule when debt contracts does not specify anything about insolvency because, sometimes, costs of contracting on may be too high. Also, the absolute priority rule (APR) must be respected in every state-supplied procedures as it would prevent shirking by contracting parties (i.e., forum shopping).

He admits that many aspects have been neglected by assumptions of the model particularly managerial discretion where the management does not act perfectly in owners' interests, the collusion between unsecured creditors and the firm, and asymmetric information regarding the performance of the firm. These could affect the result of this model. In addition, Schwartz (1997) did not model the conflict among creditors: he assumed that creditors will always select the efficient procedure which is not true particularly when the class of creditor is concerned.

4.6.2. Bebchuk's and Aghion, Hart, and Moore's Models

There are two variants of the theoretically similar model. The original model was developed by Bebchuk (1988) and further refinements had been done later by Aghion, Hart, and Moore (1992) and Hart, La Porta Drago, Lopez-de-Silanes, and Moore (1997) respectively. This procedure preserves the priority of the absolute priority rules (APR). The essence relies on conversion of debt into equity and auctions. When bankruptcy commences, debts would be automatically converted into equity. All existing debts are cancelled. Creditors, then, become shareholders.[13]

A new form of equity is an option or Reorganisation Rights (RR) {called by Hart *et al* (1997)}. Assume that new equities are identified using the existing procedure (using absolute priority rule) and there are n classes of creditor, ranging as $i = 1, ..., n$, owning $D_1, \ldots, D_n$ respectively. The lower the i the higher the priority in bankruptcy, i.e., Class 1 creditor is the most senior and Class n creditor is the most junior. This priority classification honours the non-bankruptcy ranking. Shareholders are classified as Class $n + 1$, junior to all creditors

Suppose V is a publicly known, verifiable, true value of the firm, the ith Class creditor receives S_i which determined by:

$$S_i = \min\left\{D_i, V - \sum_{j=1}^{i-1} S_j\right\}, \tag{4.34}$$

where $$S_1 = \min\{D_1, V\}, \tag{4.35}$$

and $$S_{n+1} = V - \sum_{i=1}^{n} S_i\ . \tag{4.36}$$

Note that every class of creditor never get more than the face value of its original claim. Shareholders receive what remain from all creditors' claims. However, V is not verifiable and subjective to different appraisers. Bebchuk (1998) devises the trading scheme using 'options' as follow.

- The most senior creditor, Class 1, is allocated 100 percent of the new firm's equity. Therefore, this class owns the firm by D_1 and any creditor in this class who has the claim of d_1 would get d_1/D_1. However, the debtor firm (old firm) or its incumbent management has the right to buy back this allocation at the cost D_1.
- The next class, Class 2, would be given the 'option' to buy the equity at the price (cost) $P_2 = D_1$. The debtor has the right to redeem this claim at the cost D_2.
- Class i, therefore, would get the options to buy the equity at the price of $P_i = D_1 + D_2 + \ldots + D_{i-1}$ and, as usual, the firm can buy back these options at the cost D_i.
- And shareholders, Class $n + 1$, have the right to buy equity at a price of $P_{n+1} = \sum_{i=1}^{n} D_i$ which means the firm repays all its debt.

[13] This is identical to the situation where there is a sole creditor exercising the repossession right to confiscate the debtor's asset under the court regulation. Once being a new shareholder, a creditor can do whatever she wants to realise the value of this new company, either manage it or sell it.

The procedure commences by allowing all claimants to trade their options according to own valuations and this trade must be terminated within a predetermined period. At the end, equity holders (or new shareholders) are those who decide what to do with the new, debt-free, company. There are three broad alternatives: i) sell the new firm, ii) keep the firm with the incumbent management, or iii) replace the management and continue the firm.

It is designed in such a way the financing problem is solved. The new company is financed by those who perceive that the true value of the firm V is larger than the cost they need to pay for acquiring the new equity P_i depending on their own classes. Hence, they are those who would decide upon the direction of a new firm.

Aghion, Hart, and Moore (1992) propose for the allowance of non-cash bid during the trade of allocated options would alleviate the financing problem particularly for those claimants who are financially constrained.

Therefore, there is an opportunity for further investigation and study about the optimality of bankruptcy law, particularly when the classes of creditors and their preferences on bankruptcy procedures are considered, to achieve economic efficiency.

4.7. Error of Bankruptcy

The error of bankruptcy is defined as misallocation of resource happening when the selection of deployment method for the debtor does not maximising its value. For instance, liquidation is the deployment that gives the highest value of the debtor's asset but reorganisation or private workout is selected. Therefore, resource utilisation is impaired; resources (debtor's assets) cannot be used at its highest valuation.

Despite the attempt to maximise the efficiency of bankruptcy, a bankruptcy procedure would never be perfect. There is a possibility that bankruptcy creates an error. Either by incomplete information available for relevant claimants or by the structure of bankruptcy regime, an economically efficient firm could be liquidated. This is what White (1998) called *Type I* Error. Analogously, *Type II* Error occurs when an inefficient firm that should have its owners/management replaced (if economically viable) or be liquidated is reorganised and continues with its original shareholders/management.

One important factor contributes to such error is the asset specificity and the human capital inalienability of the firm. A firm with high asset specificity is difficult to sell because the asset is useful and worthwhile only when it is retained in the firm but it has no value beyond the scrap value to any third party potential buyer. Similarly, workers with high human capital in the firm could earn a premium working in the firm as they have developed a specific knowledge and skill but they might get just the minimum wage rate working elsewhere. Therefore, this kind of company is more likely to be reorganised. Meanwhile, those with no asset specificity are relatively more likely to be liquidated.

Therefore, with both types of error, *ex post* efficiency of bankruptcy is ambiguous depending on the distribution of firm in the procedure unless there is a precise mechanism to identify the type of the firm. While from *ex ante* point of view, there is an incentive for the debtor's incumbent management to be inefficient (or exert too less effort) when its company has a high likelihood of being reorganised. On the contrary, management of company with low probability of being reorganised may *ex ante* exert too much effort on efficiency improvement.

4.8. Voting Rule in Bankruptcy

Since debtor's default causes the transfer of control rights from shareholders to creditors, every decision regarding the debtor's company must be made by creditors. In the case of a sole creditor, the decision will be efficient. In bankruptcy, however, there are many creditors and generally they have divergent expectation about what to do with the debtor's assets. Any collective solution in bankruptcy is said to be Pareto efficient if and only if it makes no creditor worse off than what they will get from other alternatives. This can be translated into the voting rule of unanimous consent because no creditor will vote for a particular solution if it is inferior to other choices of solution, providing that they vote sincerely. Thus, the ***unanimity rule*** is the only voting rule that assure Pareto efficiency (Mueller, 1989).

However, Mueller (1989) makes a note on two criticisms against the unanimity rule: substantial delay for renegotiation that strongly dependent on initial endowment of all creditors and inducement of creditor' strategic behaviour. It is worth noting that bankruptcy requires a decisive action particularly if reorganisation is adopted. If the unanimity rule were implemented, the cost of delay (time and loss of debtor's asset value) might outweigh the gain from selecting a correct and efficient solution. Additionally, creditors might behave opportunistically to gain more from the rescue value at the expense of others by voting against any solution that allows other creditors to share the total surplus. It is still Pareto efficient since no one is made worse off but the surplus has been captured by only one creditor. The final agreement depends on the relative bargaining power of all creditors. The possibility of opportunistic behaviour can further prolong the bargaining process. In the context of bankruptcy, the unanimity rule may not be optimal.

If the negotiation and delay costs are excessive, "the trade-off between the external costs of having an issue pass against which the individual is opposed and the costs of time lost through decision making" should be made (Mueller, 1989). The following question is to what percentage of majority should be used. The external decision costs of having someone being made worse off is reduced as the rule moves closer to the unanimity rule. The cost of delay, on the opposite, rises as we are moving towards the unanimity rule The optimal majority is obtained where the sum of these two costs are minimised. Both costs differ from one issue to another; hence, no single voting rule is optimal for all issues.

4.9. Concluding Remarks

This most crucial finding in this Chapter is bankruptcy is a special, collective, legal procedure destined for a default of debtor who has more than one creditor. A single debtor versus a single creditor does need only a standard debt contract and need no bankruptcy. Multiple creditors pose a problem of high transaction and renegotiation costs that may prevent efficient privately negotiated solution. Multiple creditors, however, are necessary condition but not sufficient condition for having bankruptcy. Even with many creditors, under favourable conditions, a debtor and multiple creditors can reach efficient solution privately without resorting to bankruptcy law for formal arrangement. In an absence of bankruptcy law, inefficiency may arise when creditors rush to exercise their non-bankruptcy entitlements which lead to inefficient outcome.

A real role of bankruptcy is to mitigate such inefficiency by offering a menu of default options for creditors (as lawful right holders) to choose from including basic two extremities – liquidation and reorganisation – as well as other arrangements along these twos and by creating correct incentives for creditors and/or debtor to settle on private arrangement, if it does exist. Separation between liquidation and reorganisation, hence, is inefficient since it will create divergent creditors' preferences. Furthermore, bankruptcy must not be mandatory; it should be in place to act as a 'threat value' in order to make involved parties negotiate for private workout first before resorting to formal procedure. Bankruptcy law should also be able to ratify privately negotiated solution reached by involving parties to make it enforceable.

Fundamentally, there are three basic problems to bankruptcy: i) what is to be done with debtor's asset (maximisation), ii) how the realisation of i) can be redistributed to all claimants, and iii) how bankruptcy law can influence all parties to be optimally diligent (optimal bankruptcy avoidance/prevention). Any bankruptcy law and procedure solving these problems simultaneously is said to be 'efficient.' First twos are *ex post* efficiency while the last one is *ex ante* efficiency. However, both efficiencies cannot be achieved simultaneously. Therefore, the essence of bankruptcy law design is optimality between the twos. Optimising bankruptcy law requires the understanding of business practices especially in borrowing, knowing how creditor and debtor behave, which are specific to each economy. There are two implications of this. First, bankruptcy law needs amendment if there is a significant change in business practice. Second, bankruptcy law must be tailor-made for each economy. Direct adoption of bankruptcy law from other jurisdiction or countries cannot be optimal.

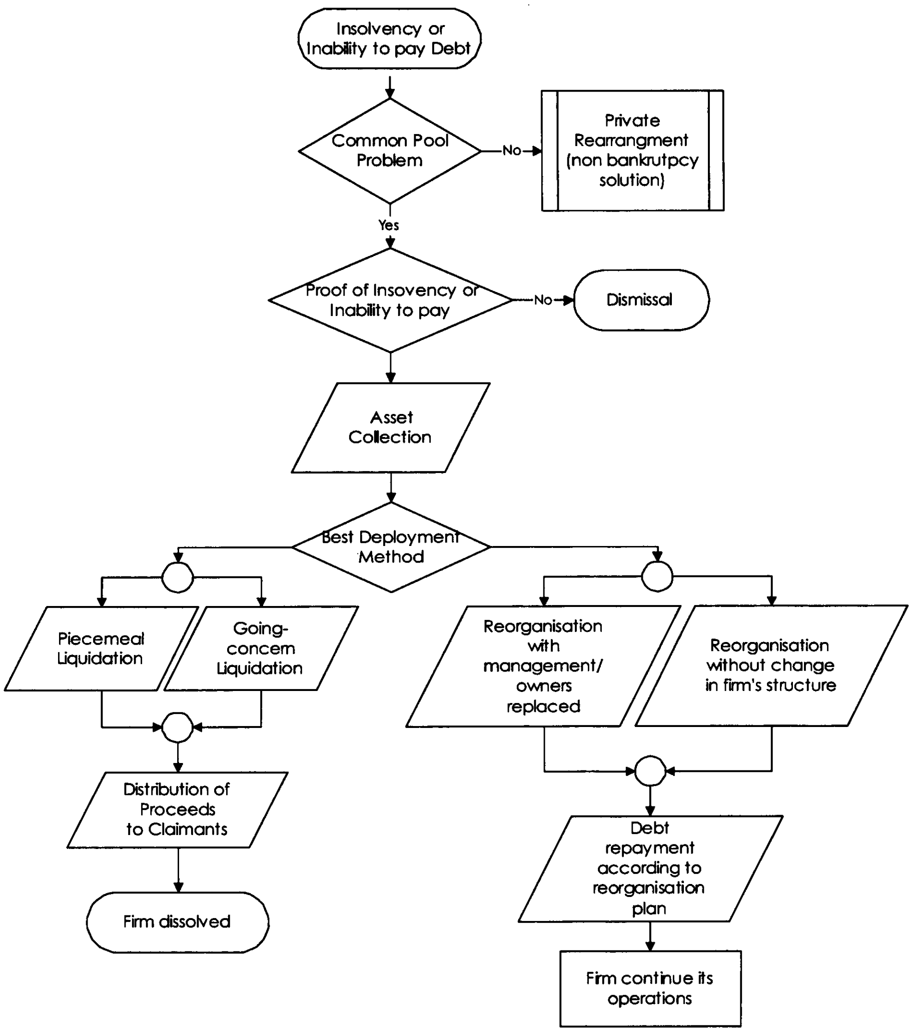

Figure 4.6 Conceptual Framework of Bankruptcy Regime

Chapter 5

Thai Bankruptcy Law and Its Economic Efficiency

In this chapter, the Thai Bankruptcy Laws – Bankruptcy Act B.E. 2483, Bankruptcy Act (No. 4) B.E. 2541, Bankruptcy Act (No. 5) B.E. 2542, and Bankruptcy Act (No. 6) B.E. 2543 – are analysed by using economic concepts developed in Chapter 4. This chapter measures the economic efficiency of these legislations. It considers whether recent amendments improve economic efficiency as well as identifying errors, if any, embedded in the laws. After the preview of the development of bankruptcy law in Thailand, two eras of Bankruptcy Act implementations are considered, before and after the annexation of reorganisation provisions. Each is briefly explained, followed by details of their essential components. Remarks on how a particular section of the legislation affects economic efficient is also given.

5.1. Development of Thai Bankruptcy Law

The roots of enforcement by bankruptcy procedures in Siam date back well before 1645. The first recorded law regarding bankruptcy provision was *Borrowing Law B.E. 2188*. It was a mixture of criminal and commercial law whereby creditors could impose a physical penalty to force repayment by the debtor (Mahakun, 1998). Lingat (1937) showed that there was a collateral requirement of debtor's property in order to obtain a loan and the law allowed repossession by creditors in the event of the debtor's non-performance or default. However, the prevention of excessive exercise of such rights appeared in the ancient Thai law that repossession could not be done without court consent; otherwise, the claim will be reduced by half. Furthermore, there was a prominent implementation of a modified 'first-come-first-serve' (FCFS) rule that the petitioning creditor obtained twice the amount of other creditors. Bankruptcy procedures in the ancient time considered liability of a debtor beyond the object of obligation. The debtor was subject to the physical punishment and resale of himself as a slave (indicating *unlimited liability*). Unless there was a change of reign whereby debtors were released from all previous obligations, this was the fresh start policy (known as *discharge*).

Since 1891, many ancient legal rules have been rescinded in the move toward a formal bankruptcy system, which aims at a formal discharge of the debtor. The redistribution rule has changed from the 'first-come-first-serve' basis to the 'proportional priority rule' (PPR)[1] where creditors get the debtor's assets in proportion to the outstanding debt. Physical enforcement was abolished. Two modernised bankruptcy laws were enacted in 1908 and 1911 respectively.[2] They had similar features to other contemporary counterparts including discharging, composition, and a redistribution scheme. The commencement of proceedings was triggered by default.

In 1940, the Bankruptcy Act B.E. 2483 replaced the previous act employing more revised legal concepts. Insolvency must be proved for the bankruptcy proceeding to be commenced, not just default. Provisions for the avoiding power of receivership[3] were added. Bankruptcy Act (No. 2) B.E. 2511 enhanced the effectiveness of the law including better receivership provision in 1968. By the enactment of Bankruptcy Act (No.3) B.E. 2526 in 1983 to amend the existing Act, the law provided clearer separation between the personal and the corporate debtor. Procedures in this Act focused primarily on liquidation of a debtor's assets and their distribution among his creditors. The discharge from indebtedness was applied to a debtor in person not a corporate debtor. Declaring corporate debtor bankrupt implies the extinction from its juristic person status.[4]

In 1998, a significant change in Thai bankruptcy law was brought about by the financial crisis. The enactment of Bankruptcy Act (No. 4) B.E. 2541[5] introduced the component of reorganisation into the existing law and clarified jurisdiction for corporate bankruptcy. Due to a small number of applications for reorganisation, amendments by Bankruptcy Act (No.5) B.E. 2542 enacted a year later, to made the Law more appealing to the debtor. This Statute was accompanied by a new, specifically designed, law to establish a bankruptcy court – an authority specifically to handle bankruptcy proceedings. The recent amendment was made in 2000 under the enactment of Bankruptcy Act (No. 6) B.E. 2543.[6]

5.2. Bankruptcy Act B.E. 2483: Bankruptcy with only Liquidation

Before the addition of corporate reorganisation to bankruptcy procedures, the Act was entirely destined to liquidate an insolvent debtor. The termination of bankruptcy proceedings under this Act was the dissolution of the debtor firm. This law applied very similar approaches to

[1] The Amending Act for Borrowing, 6 March R.E.110 (B.E. 2437).
[2] Bankruptcy Act R.E. 127 (B.E. 2454) and Bankruptcy Act R.E. 130 (B.E. 2457).
[3] *Avoiding Power of Receivership* means the appointed receiver has the power to run the debtor's business, avoiding any pre-bankruptcy rights of the debtor as well as creditors.
[4] Bankruptcy Act B.E. 2483 and two amendments are collectively called hereinafter BA 2483.
[5] hereinafter BA 2541.
[6] hereinafter BA 2543.

an individual and to a company. The formal insolvency procedures under this Act is described below and summarised in Figure 5.1[7].

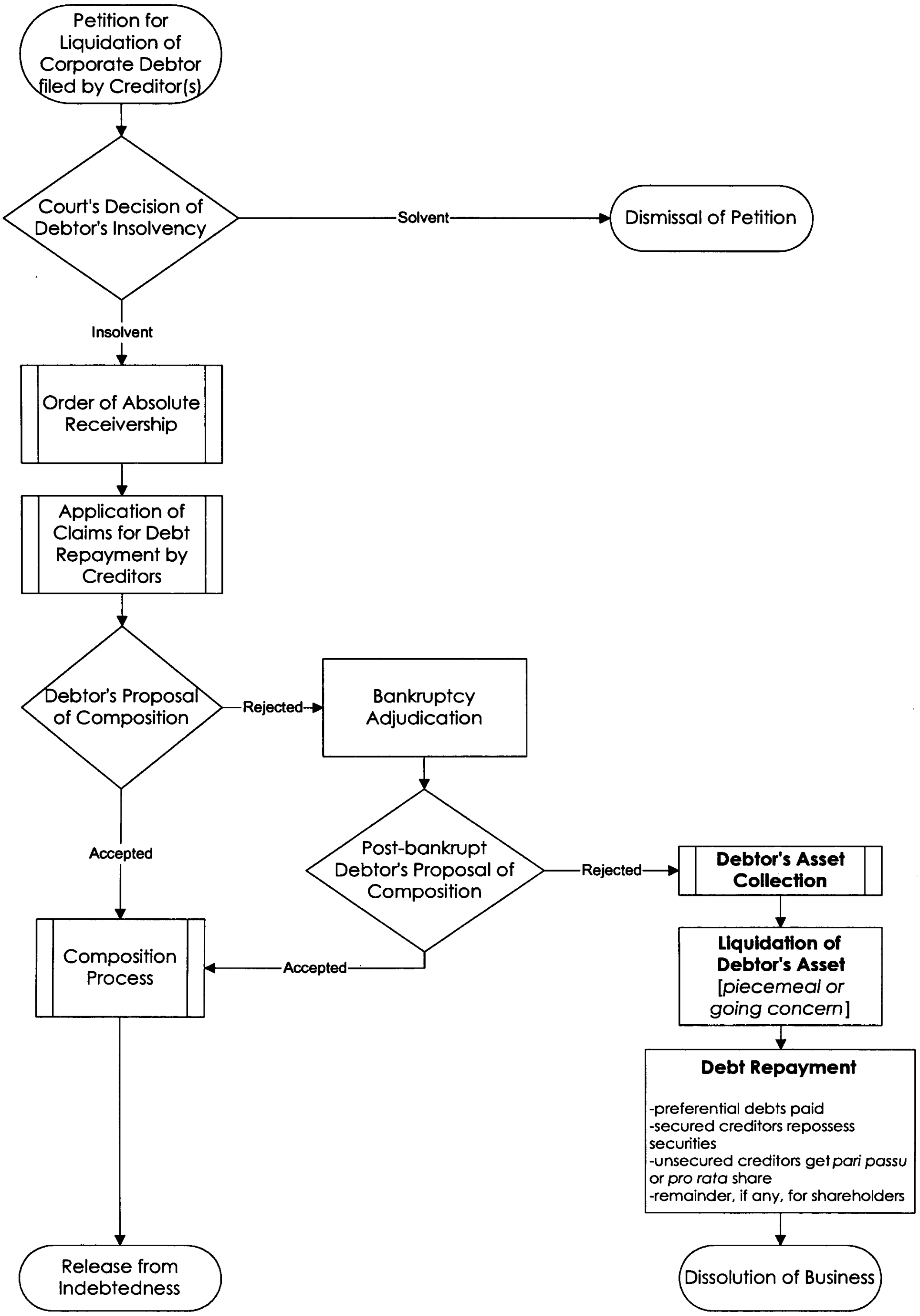

Figure 5.1. The Conceptual Framework of Liquidation

[7] Based on Business Reorganisation Office (BRO), 2000, *Formal Insolvency Mechanism*, Department of Legal Execution, Ministry of Justice, http://www.legal-ex.go.th

Proceedings in bankruptcy under this Act are based on the regime of court-appointed *administrative receivership* whereby the court appointed the receiver to administrate the debtor's affair after the petition for bankruptcy and to decide the best time and method to liquidate debtor's assets[8] (Goode, 1995; Aghion, 1998). Under receivership, all debtors' rights are nullified and the official receiver is empowered with debtor's rights on behalf of, and for the benefit of, all creditors. However, receivership under this Act is different from the administrative receivership enshrined in the UK Insolvency Act 1986 which allows creditors to appoint anyone as the administrative receiver[9]. Thus, the UK receiver is presumed to act in the interests of appointing creditors (Aghion, 1998).

5.2.1. The Process of Liquidation Proceeding

Upon a debtor's default, the creditor(s) may a the petition for bankruptcy proceeding. At the hearing, the court must investigate whether the debtor is insolvent.[10] If the debtor is solvent, the petition will be dismissed and creditors able to seek repayment through non-bankruptcy enforcement under the Civil and Commercial Code. If there is substantive evidence supporting the insolvency of the debtor, the court should issue a receiving order to commence administration of the debtor's assets[11]. The receivership order freezes debtor rights over an estate and transfers such rights to the appointed official receiver. It also forbids the pursuit of non-bankruptcy claims by creditors (Supanit, 1999). At this stage, the debtor has not yet been declared bankrupt.

The appointment of receivership allows all creditors to turn up and file for repayment from the bankruptcy proceedings. The official receiver later arranges a Meeting of Creditors. The Meeting is to consider the bankrupt adjudication of the debtor or to consider the debtor's proposal of debt composition. If the Meeting agrees upon the debtor's composition plan, the debtor is no longer liable to be declared bankrupt and the composition process is initiated. In the case that the Meeting adjudicates the debtor bankrupt, the court should declare as the Meeting agreed.

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[8] BA 2483, Section 140-148.
[9] Insolvency Act 1986 [hereinafter IA 1986], Part III, Section 29.
[10] BA 2483, Section 9 and 10.
[11] BA 2483, Section 14.

Once declared bankrupt, the debtor's assets are liquidated: piecemeal or as a going concern is subject to the official receiver's consideration on the basis that it brings the highest value realisation. The realised value is divided according to the priority of non-bankruptcy entitlements. All administration costs and special class creditors (tort, judgement, and tax creditors, for instance) are paid first, ahead of all other creditors. Secured creditors can repossess their securities or claim for equivalent sums estimated by the official receiver. Unsecured creditors are paid on the *pro rata* or *pari passu* basis, i.e. proportional to their shares on the debtor's assets.

For bankrupt individuals, the court may adjudicate the discharge from the bankruptcy when certain conditions have been fulfilled.[12] The rule of discharge is not applied to the corporate debtor as the bankruptcy announcement automatically dissolves the firm from its juristic person status, i.e., any action undertakes by this firm is not legally bound.

It is worth noting that the liquidation process applies to the debtor firm in every form of corporation: ordinary partnership, limited partnership, company limited, and public company limited. Reorganisation proceedings are applied as if the debtor is limited company or public limited company only.[13]

5.2.2. Bankruptcy Petition: Detection of Common Pool Problem

As long as any individual creditor can gain full repayment by non-bankruptcy pursuits, no bankruptcy proceeding will be commenced. Moreover, before going into bankruptcy, every creditor must attempt to seek repayment outside bankruptcy. It is unlikely that any creditor would provoke bankruptcy promptly after a debtor's default.

Petitioners

A petition for bankruptcy can be filed in two ways. First, the liquidator appointed by the debtor can file the petition for bankruptcy if the investment capital or investment contributions (i.e., equity/registered capital) have been entirely paid but the assets are insufficient to cover the liabilities.[14] This case is applied only to the case where the debtor firm intends to close down and is unable to do so because liabilities exceed assets. Second, creditor(s) can file the petition.

12 BA 2483, Section 68-81, BA 2543, Section 68 Paragraph 1, Section 71.

13 BA 2543, Section 90/1

14 BA 2483, Section 88.

Normally, unsecured creditors are more likely to seek repayment from bankruptcy because it is highly possible that they will gain nothing from a non-bankruptcy execution. Note also that when the petition is filed, it cannot be withdrawn without court permission.[15]

Unsecured creditors who are liable to file a petition should verify these conditions: i) the debtor is insolvent; ii) the debtor owes petitioning creditor(s) more than 2 million *Baht*; and iii) the petitioning debt must be unquestionably determined, which may be of a future date.[16]

Secured creditors are supposed to file a petition if and only if the value of the security is much lower than the debt; otherwise, they are better off by confiscating the security, upon the court permission, as a repayment. They are not obligated to participate in the procedure unless two additional conditions are fulfilled: i) a secured creditor is not prohibited from obtaining repayment from debtor's assets in excess of the value of security (security is valued at less than the debt face value); and ii) the creditor is willing to waive the right over the security (sacrifice the repossession right) for the benefit of creditors as a whole, or, after appraisal, the value of security, the remaining debt amount is more than 500,000 *Baht*.[17] For immovable securities, however, once a secured creditor has accepted and then disposed of the security, she cannot make a claim for the shortfall between the debt face value and the security resale value in bankruptcy.[18] For movable securities, a secured creditor can claim for the shortfall in bankruptcy only when there is a special covenant in the debt contract that allows this.[19]

Secured creditors are unlikely to waive their entitlements over securities, unless the value of securities is much lower than the outstanding debt. In this case, a secured creditor may appraise the value of a security, deduct the appraised value from the outstanding debt, and claim for the remaining debt. A secured creditor will be repaid at the appraised value first and receives a *pro rata* share from the subsequent proceeding. The Act has the mechanism to prevent over- or under-valuation made by secured creditors (over valuation is more likely) by permitting the official receiver a discretion to redeem the security at an appraised price.[20]

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[15] BA 2483, Section 11.
[16] BA 2483, Section 9, amended by BA 2543, Section 4.
[17] BA 2483, Section 10.
[18] Civil and Commercial Code [hereinafter CCC], Section 733.
[19] CCC, Section 767.
[20] BA 2483, Section 96.

Mahakun (1999) exemplifies different possibilities of the receiver's authority. Suppose a real value of security is 60,000 *Baht*, while the debt is 120,000 *Baht*, and the *pro rata* share is 10 per cent. If the secured creditor appraises the value of security too low, e.g. 50,000 *Baht*, the official receiver can redeem this security and resell it at a higher value (a gain of 10,000 *Baht* would be added to the total pool of asset). The secured creditor gets 57,000 *Baht* [50,000 plus 10 per cent of the remainder (120,000-50,000=70,000)]. If the appraisal is too high, the official receiver may refuse to accept the valuation, the secured creditor must resell it herself while filing for the repayment of the remainder 50,000 *Baht*. She would only get 65,000 *Baht* [60,000 from the resale of security plus 10 per cent of the remainder (120,000–70,000=50,000)]. But if the secured creditor appraises the value of security correctly, she gets 66,000 *Baht* [60,000 from the redemption plus 10 per cent of the remainder (120,000–60,000=60,000)]. Therefore, this clause creates an incentive for secured creditors to appraise the security correctly and avoid an opportunistic appropriation from the debtor's estate.

Court Hearing of Petition

The court must verify that the debtor is insolvent; otherwise the petition must be dismissed.[21] However, because the proof of insolvency may be costly and difficult to verify, the Act provides basic assumptions that should allow the court to decide. Fundamental assumptions of a debtor's insolvency are

> " (1) If the debtor transfers assets or control rights over assets to other persons for the benefit of creditors as a whole …
>
> (2) If the debtor transfers or delivers assets with inveigle or fraudulent intent …
>
> (3) If the debtor transfers or creates any property right over assets that would be deemed as an act of preference when the debtor was bankrupt …
>
> (4) If the debtor does any of the following acts in order to delay the payment of the debt or to prevent a creditor from receiving a payment:
>
> … [*clauses related with personal bankruptcy are omitted*]…
>
> (c) removes assets out of the court's jurisdiction;
>
> (d) accepts the judgement requiring the payment of money which the debtor should not pay.
>
> (5) If the debtor has had assets under a compulsory execution, or there is no asset available for the attachment for the repayment.
>
> (6) If the debtor declares to the court in any action that he is unable to repay the debt.
>
> (7) If the debtor informs any of his creditors that he is unable to repay the debt.
>
> (8) If the debtor proposes any two or more of his creditors a composition of his debt.
>
> (9) If the debtor has received written demand for repayment from his creditor not less than twice in the interval of at least 30 days and the debtor does not repay the debt."[22]

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[21] BA 2483, Section 14.

[22] BA 2483, Section 8.

If one or more of these propositions is substantial, the court may assume that the debtor is insolvent and the petition is valid.

During the hearing, if the court cannot prove according to these guidelines and/or the debtor can prove that he is able to pay the debt, the petition must be dismissed. The court retains discretion to dismiss the petition by using any other information available from the case.

At the petition stage, it is crucial for the court to anticipate the emergence of a common pool problem. The petition is self-evident for the likelihood of the debtor's insolvency. However, there may be a creditor who exploits the bankruptcy proceeding or uses bankruptcy merely as a threat to obtain repayment from the debtor. Thus, the Act requires the petitioning creditor to prove that the debtor is insolvent. In addition, any secured creditor, who wants to participate in bankruptcy, faces the trade-off between security foreclosure and a repayment under the proceeding. The Act prevents secured creditors from gaining more in bankruptcy by both foreclosing on a security and asking for a repayment in bankruptcy as well as by making an opportunistic appraisal of the security described above. To avoid bankruptcy misuse, the Law imposes a prohibition on the withdrawal of a petition.

Notwithstanding, there is no concern about the number of petitioning creditors which is the necessary but not, of course, sufficient condition indicating a common pool problem.[23] This Act presumes the creditor's petition to be an indicator of the debtor's insolvency and an existence of a common pool problem without considering the number of creditors. The court, moreover, has discretion to decide whether the debtor is insolvent. Therefore, the court decision of insolvency is prone to error if it neglects the real purpose of bankruptcy, e.g., there is a case where the debtor has only one creditor and the bankruptcy proceeding commences (Supanit, 1999).

5.2.3. Collective Actions under the Act

The principle of avoiding power of the trustee (Jackson, 1982) is applied to the role of the official receiver upon an order of absolute receivership. The official receiver replaces the incumbent management of the debtor and is responsible for all assets to prevent any debtor's action that may harm creditors as a whole or give the preference to any particular creditor.

[23] An insolvent debtor with a sole creditor, for instance, should not be considered in the bankruptcy proceeding because the creditor knows the most efficient use of the debtor firm, i.e., no common pool problem.

Meanwhile, the appointment of a receiver prohibits the execution of non-bankruptcy claims by creditors.

Transfer of Control and Collection of Corporate Assets

After the court decides that the debtor is insolvent, absolute receivership must be announced.[24] Announcing absolute receivership means the debtor no longer has control over its assets and the dissolution of the debtor company is confirmed. Such a control right is transferred to the appointed official receiver on behalf of all creditors. The official receiver has a sole responsibility over the company's property.[25] The debtor must act to facilitate transfer of the control over assets.[26] The official receiver investigates the debtor's assets and liabilities[27], takes relevant assets into its custody[28], and refuses to honour any contract in which the cost may exceed the benefit.[29] The official receiver acts on the debtor's behalf to complete all pending business as well as any legal action including borrowing.[30]

Taking a debtor's property into the receiver's custody is based on the *imputed property* principle whereby property in the debtor's possession or under disposition by the consent of the true owner, as well as property that directly relates to the debtor's business, and that the debtor treats as if he were the real owner (Supanit, 1999).[31] The receiver can also enforce repayment by debtor's debtors or demand repayment from anyone on whom the debtor has entitlement to claim to make a claim.[32]

Stay

All legal proceedings against the company must be pending by the power of the order of receivership to stay or restrain, including all non-bankruptcy pursuits.[33] If more than one creditor has filed a petition against the same company, the court is empowered to consolidate the case after it has ordered the absolute receivership.[34]

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[24] BA 2483, Section 14.
[25] BA 2483, Section 22.
[26] BA 2483, Section 23, 24.
[27] BA 2483, Section 30.
[28] BA 2483, Section 19, 20, 21, 117, 118, 119.
[29] BA 2483, Section 122.
[30] BA 2483, Section 22, 144.
[31] BA 2483, Section 109.
[32] BA 2483, Section 118, 119.
[33] BA 2483, Section 27, 155.
[34] BA 2483, Section 12, 15.

These practices conform to the objectives of resolving the common pool problem and encouraging creditors' participation. The appointment of an official receiver aims at avoiding conflicting interests between creditors and the debtor as well as amongst creditors themselves. The receiver acts as a representative of every creditor as if there were only one. Creditors are prevented from exercising their claims in and outside bankruptcy simultaneously and they are forced to act collectively in bankruptcy. The stay also prohibits the disposition of the company assets in a manner that adversely affects creditors as a whole.

Submission of Claims by Creditors

Creditors can only claim for repayment in the proceeding. They must present sufficient evidence supporting their claims within 2 months of the public announcement of absolute receivership.[35] This includes judgement creditors. Debts that are qualified for repayment in bankruptcy must be incurred before the announcement of absolute receivership regardless whether it is due or not. Secured creditors retain rights over assets given as securities but the official receiver must be allowed to inspect such assets. If creditors decide to apply for repayment in bankruptcy, repossessive rights over securities are waived and their securities are surrendered.

Debt in bankruptcy under this Act is subject to the *acceleration principle* whereby the foreseeable, undue debt is accelerated as if it were currently due (Jackson, 1982). The rationale behind the acceleration principle is fairness for creditors. If this principle is not applied, due debts would have an advantage at law over undue debts.

The official receiver examines all submitted claims by summoning the related parties to present witnesses and evidences supporting their claims. After an examination of each claim, the receiver has to submit a report on the amount of claim for a court's review.[36] The court may decide to i) dismiss the claim, ii) approve the full repayment for the claim, or iii) approve the partial repayment for the claim; the court's order is not finalised and subject to the alteration upon the receiver's application.

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35 BA 2483, Section 27, 91, 94-97.
36 BA 2483, Section 104, 105.

Meetings of Creditors

The official receiver must summon all creditors to consider i) the debtor's proposal of composition (discussed later) and ii) the disposition of company's property.[37] Subsequent creditors' meetings are possible, subject to the law, the court's order, or the official receiver's request. At least one quarter of creditors (by value of petitioning claims) may ask the official receiver to call for a creditors' meeting.[38]

Creditors' votes are determined by court approved claims (value of approved debts, not their face value) and are valid throughout the proceeding. The vote of remaining-unapproved claims may be determined by the petitioning amount of debt unless there is an objection from other creditors. The official receiver is authorised to decide the voting right for the objected claim.[39]

At the first meeting of creditors, a Creditor's Committee may be appointed to act on behalf of all creditors.[40] A Creditor's Committee reduces the negotiation and transaction cost of creditors during the proceedings.

There are two voting rules for any resolution in the meeting of creditors. A majority rule is applied for every resolution of the meeting. A special majority rule[41] is used only for the resolution upon the debtor's proposal of composition whereby three quarters of the petitioning debt and a majority number of creditors are both required (Supanit, 1999).

5.2.4. Pre-bankruptcy Composition[42]

The composition is a proposal that the debtor promises to pay a certain portion of the original debts to all creditors. If an agreement on composition is reached, the obligation of original debts is void. The debtor, instead, is obligated to a new debt under the composition.

[37] BA 2483, Section 31.
[38] BA 2483, Section 32.
[39] BA 2483, Section 34, 35.
[40] BA 2483, Section 37–41.
[41] BA 2483, Section 6.
[42] BA 2483, Section 45–60.

The Bankruptcy Act has a provision regarding the composition of debt after the court has conducted an inquiry into the debtor's insolvency and issued an order of receivership. Before the first meeting of the creditors, the debtor may propose a composition plan to the official receiver. The proposal is then considered at the first meeting. The acceptance of such a proposal is subject to the creditors' consent. When the meeting agrees, by a special majority rule, to accept the composition plan, the official receiver must report the result to the court for further approval before the composition can be implemented. Court approval would be granted only after an investigation of a debtor's affair is completed[43] and there is no objection from any creditor (i.e. creditors may change their mind). The court should approve the composition on the basis that it makes all creditors better off and give no preferential treatment to particular creditors. Under the composition, if there is an appointment of a privately appointed liquidator, the provisions regarding the management of a debtor's assets and receivership shall be applied *mutatis mutandis*. This is very similar to the UK *administrative receiver*.[44] The court approval of composition automatically nullifies the order of absolute receivership but the official receiver retains the authority to ensure that the composition plan is strictly followed.

The provision of composition allows a debtor and creditors to re-negotiate the obligation. Information costs incurred by both parties will be alleviated to a certain level, since creditors will act in a collective fashion under the official receiver's supervision. With the recognition of the court, they may reach a certain settlement about their obligation and pursue a private workout instead of a costly legal proceeding (Baird, Gertner, and Picker, 1995). Considering an efficient, but bad luck, debtor may convince all the creditors well before they seek for bankruptcy that a workout is more desirable if the information and transaction costs for doing so are sufficiently low. But if it involves excessive costs to convince every creditor to compromise upon the company's debt, the workout before bankruptcy becomes less likely. Therefore, there is a provision in the Act to allow this to happen in the more secure environment with lower transaction and negotiation costs for both debtor and creditors.

5.2.5. Public Investigation of Company's Affairs

The court must publicly investigate the debtor company's affairs after the first meeting of creditors. The official receiver shall report to the court about the resolution of the first meeting of creditors. The public investigation of a company's affairs examines the company's business,

[43] BA 2483, Section 51.
[44] IA 1986, Part III.

assets, and liability and considers the causes of the firm's failure whether they may stem from probable illegal, wrongful, or fraudulent acts conducted by the debtor's firm.[45]

5.2.6. Adjudication and Commencement of Bankruptcy

If the receiver's report on the first meeting of creditor indicates i) a resolution which asks the court to declare the debtor bankrupt, ii) no resolution, iii) creditors were absent from the meeting, or iv) the composition proposal is rejected, the court shall make the bankruptcy order against the debtor firm and automatically appoint an official receiver as a liquidator to liquidate the debtor's assets and distribute the realisation to all creditors. The bankruptcy order is deemed to be effective since an order of absolute receivership has been announced.[46] No bankruptcy adjudication should be made if the composition is approved.

5.2.7. Post-bankruptcy Composition

After being declared bankrupt, a debtor has another opportunity to propose another proposal for composition[47]. Post-bankruptcy composition can employ pre-bankruptcy composition provisions *mutatis mutandis.* The reason for giving a second chance to the debtor is because, as the proceeding progresses, other information may come to light, a better value realisation may be achieved, or uncertainties resolved. Both parties may be able to agree a settlement without liquidation.

5.2.8. Liquidation or Winding Up

The official receiver, as an official liquidator by court's adjudication, has to dispose the company's assets in such a way that it maximises the return to all creditors and redistribute the realisation to all creditors.

Value Realisation under the Act

There are two ways of conducting liquidation: piecemeal or as a going concern. The combination of both is plausible. Non-core assets may be sold piecemeal while the substantive portion is sold as a going concern. *Ex post* allocative efficiency is achieved to a certain extent. If

[45] BA 2483, Section 42.
[46] BA 2483, Section 61, 62.
[47] BA 2483, Section 63.

the firm worth more living, it must be sold off as a single unit, going concern.[48] However, Aghion, Hart, and Moore (1992) argue that the possibility of such deployment is low because a potential buyer may be financially constrained. Any liquidation method, however, must be agreed by all creditors and the receiver will implement the chosen disposal method, except in the case of a public auction or the sale of perishable goods whereby the receiver may perform without creditors' approval[49]. Rules regarding liquidation are biased towards piecemeal liquidation.

Division and Redistribution of Debtor's Assets: Claims' Priority

The priority rule used is the modified absolute priority rule (modified APR) that includes the treatment of special class or preferential debt and the administration fee incurred in the proceeding.

Treatment of Preferential Creditors

Ahead of other types of claim, the Act grants the priority to the special class of creditor and allows them to get their repayment first. The following special classes of claims have the priority over other creditors' liens.

"... (1) Expenses of administration of a ... debtor's estate;

(2) Expenses of the receiver in managing the debtor's asset;

(3) ...;

(4) The fee in calling in assets according to Section 179(3);

(5) Fees of the petitioning creditor and the counsel's fee as the court or the receiver may prescribe;

(6) Taxes and land taxed which have become due for payment within six months prior to the order for receivership of the asset;

(7) Wages of clerks, servants, or workers of the debtor, for two months prior to the order for receivership of the asset but not exceeding three hundred *Baht* per person;..."[50]

[48] BA 2483, Section 120.
[49] BA 2483, Section 123.
[50] BA 2483, Section 130 (not adjusted for inflation).

*Unsecured Creditors under the **Pari Passu** Principle*

Claims for repayment made by creditors are subject to the priority of the rights each creditor gained outside the bankruptcy. Unsecured creditors may file a claim for repayment of debt under bankruptcy[51] and debtor's collected assets will be distributed to unsecured creditors *pari passu*[52]. The *pari passu* principle simply means all unsecured creditors get the *pro rata* repayment (proportionate to the value of the court approved claim). This implies any loss incurred is also *pro rata* distributed between every creditor. Neo and Hwang (1998) argue that the effectiveness of this principle guarantees only fairness for creditors but implicitly punishes the diligent creditor who actively monitors the debtor and pursues his rights outside bankruptcy. A provision, which delays or nullifies creditors' pursuit, prevents a pre-emptive race over the firm, discourages an incentive to monitor the debtor and thus increases the probability of insolvency *ex ante.*

Secured Creditors and their Preferential Rights

Secured creditors can retain their rights over assets given as securities without filing their claims for repayment[53]. This means they may repossess securities and decline further repayment in bankruptcy. The amount of repayment simply equals the value of any confiscated asset.

It is also possible for them to file for repayment if they relinquish the security as described in 5.2.2. They are no longer entitled to be secured creditors and the security is surrendered but they will earn further repayment on a *pro rata* basis of the shortcoming between the face value of the debt and the appraised value of security.

Shareholders and their Liabilities

Provided the investigation does not find that they or their management (director) had been involved with any illegal, wrongful, or fraudulent act which failed the company, if there is anything leftover from the above distribution scheme, shareholders are entitled to receive payment as they are the residual claimant. Otherwise, they are subject to the civil and criminal charges under the Company Act. However, it is extremely rare that they can get anything. If there were something leftover, the debtor firm must be solvent and no bankruptcy case could have proceeded.

[51] BA 2483, Section 94.
[52] Civil and Commercial Code [hereinafter CCC], Chapter III, Section 290.
[53] BA 2483, Section 95.

Moreover, shareholders and management of companies that do not have limited liabilities (single proprietorship, registered ordinary partnership, and limited partnership) are liable to use their personal assets (non-company assets) to pay for the remaining debt and, if the debt is not fully paid, they will be also declared bankrupt as are their companies. The proceeding for such individuals is inaugurated automatically, without having to file a new petition, after the order of absolute receivership of the company has been issued.[54]

Note that in bankruptcy, non-bankruptcy entitlements of creditors earned outside bankruptcy must be honoured to keep the compatibility between two different regimes. Interestingly, there is a conflict between the enforcement of rights in and outside bankruptcy. Under the Bankruptcy Act, secured creditors have rights to make claims for repayment of the remaining debt (the positive difference of the face value of the debt less the appraised value of security).[55] But under the Civil and Commercial Code, Section 728–735, the creditors only get repayment from the resale value of security. If the resale value exceeds the amount of the debt, the creditor receives the full repayment (the residue should be delivered to the receiver); if not, she gets only the resale value of that security (or the portion of it, if there is more than one creditor holding the claim on same security)[56].

The right to claim the shortfall of secured debt is expected to be the incentive for a secured creditor to relinquish repossession rights over the debtor's asset given as a security and to put those assets into the pool of administrated assets – especially when the creditor thinks that their resale value may be very low compared to the repayment from bankruptcy. It could be an incentive to maintain the security essential to the debtor's operation in order to preserve the value of the debtor during the course of liquidation.

5.2.9. Consequences of Bankruptcy on Executed and Executory Acts

The Act has the power to nullify executed and executory acts in order to collect debtor's asset into the pool as much as possible. The principle of *bona fide* act is applied throughout.

[54] BA 2483, Section 89.
[55] BA 2483, Section 96, *see* 5.2.2.
[56] CCC, Section 732 and 733.

Nullification of Civil Actions against Company's Assets and Debtor's Acts

Any civil action against a company's assets is void unless the judgement is completed by the time the order of absolute receivership is announced. Judgement creditors from such civil action must participate in the bankruptcy proceedings for the repayment of their claims.[57]

The court, with the receiver's suggestion, has the authority to nullify any transaction or act done by the debtor three years prior and subsequent to the application to adjudicate the debtor bankrupt. The nullification is not applied if affected parties can prove that the transaction is *bona fide*, 'of good faith,' and involves reasonable remuneration.[58] For instance, the sale contract with a price much lower than the market price must be voided. A similar nullification is applied to any debtor's action that is deemed to give preference to a particular creditor during a period of three months prior and after the application to adjudicate the debtor a bankrupt.[59] Analogously, the court, subject to the receiver's suggestion, can make an order to cancel fraudulent acts related to the firm's estate under the Civil and Commercial Code. The sole reasoning for having the provision for nullification is to bar the misallocation of company's assets made by the debtor firm's management because the distressed firm has an incentive to reallocate its assets to prevent creditors' seizure.

The Treatment of Executory Contracts

An executory contract has a special characteristic of being an asset and a liability at the same time. It is the unfinished contract that requires something to be done. For example, the debtor has the contract to buy a raw material, by the amount of q, from a supplier at the price p, the raw material is the asset to the debtor's estate but the debtor must pay $p \cdot q$ to actually get that material. Paying for that material is the liability of the debtor's estate. The payment is required to make the debtor a lawful owner of that material. Hence, the task for a liquidator is to decide whether to proceed according to the original contract or cancel it.

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[57] BA 2483, Section 110 – 112.
[58] BA 2483, Section 114.
[59] BA 2483, Section 115.

The basic intuition is to honour a contract that increases the total value of the debtor's assets. If the market price p_m of a similar raw material from a third party is much lower than the price specified in the contract, $p_m < p$, and if the contract specifies the fine upon the cancellation of contract f, it is more efficient for creditors to cancel this contract if $f \leq p - p_m$, other things being equal. However, the Act does not objectively tell the official receiver what is to be done. The Act only determines that the official receiver should finish the debtor's business without indicating guidelines to deal with the executory contract. If there is any doubt, the official receiver must consult with the court.[60] Therefore, it is necessary for the Act to incorporate the objectively verifiable guidelines in a manner that maximise the pool of a debtor's assets for the official receiver and the court to follow when dealing with executory contracts.

The special authority of the asset collection under a bankruptcy proceeding, by being able to negate the executed act or executory contract and maximise the asset pool, is believed to create an asymmetry for creditors seeking repayment between non-bankruptcy and bankruptcy procedures. This is a vital factor contributing to the existence of a single creditor debtor in bankruptcy where a common pool problem is not evident

5.3. Bankruptcy Act B.E. 2543: Bankruptcy with Reorganisation

In 1998, the major amendment of the Bankruptcy Act was the introduction of business reorganisation. This gives an alternative for asset reallocation apart from liquidation. It is intended to prevent inefficient liquidation whereby a economically viable company is dissolved. *Reorganisation* or *rehabilitation* operates virtually independently from the existing liquidation-based procedure and governed by Section 90/1 to Section 90/90. Two deployment methods – liquidation and reorganisation – share very few legal provisions, even though they are in the same legislation. It had been asserted by the Committee for Examining Economic Related Legislation to the Senate[61] that there should be two separate laws, one for liquidation and another one for reorganisation. Figure 5.2 portrays the conceptual framework of reorganisation procedure.

The separation between liquidation and reorganisation is contradictory to economic rationale and efficiency. The appropriate method of deployment must be realised under the same proceeding, not be predetermined by using different laws. This specific characteristic of the Act could contribute to the problem of *forum shopping* discussed earlier.

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[60] BA 2483, Section 120.
[61] A Report by the Committee for Examining Economic Related Legislation submitted to the Senate No. 2, January 1998.

Thus, the consideration of the amended Act rather focuses on corporate reorganisation. Reorganisation under Bankruptcy Act is the hybrid of the UK's Administrator regime, the US's Chapter 11, and the Singapore's Judicial Management. Many borrowed features, however, were not carefully scrutinised before adopted into the Act. Hence, some deficiencies are apparent.

5.3.1. The Process of Reorganisation Proceeding

Reorganisation in the Act implies "the court supervised formal attempts to restructure ... a financially distressed enterprise" (BRO, 2000). Business enterprises under the definition of reorganisation process are restricted to the form of company limited and public company limited. Other forms of company are not eligible.

The reorganisation petition can be filed by the debtor firm, the creditor(s), or the coalition of debtor and creditor. Upon filing a petition, the legal power to restrain legal acts against a debtor's assets, or so-called *automatic stay*, comes into effect. It prohibits creditors from pursuing or enforcing their claims outside bankruptcy as well as preventing an incumbent management to run the debtor firm. The hearing investigates the cause of the firm's failure and any prospective potential of recovery. A reorganisation order is issued if there is a satisfactory prospect for reorganisation.

The appointment of a reorganisation planner is followed. The meeting of creditors is required to consider the selection of the reorganisation planner. A prospective planner nominated by the petitioner(s) is automatically elected if there is no competing nomination. The debtor has the right to nominate a planner too. A debtor-nominated planner should be supported by a simple majority of creditors. Meanwhile, the special majority resolution or the special voting rule (at least three quarters of the value of outstanding debt and a simple majority of creditors) is required to appoint a creditor-nominated planner. However, the court has the discretion to appoint the planner if there is no nomination or to disapprove the selected candidate and call for a new selection.

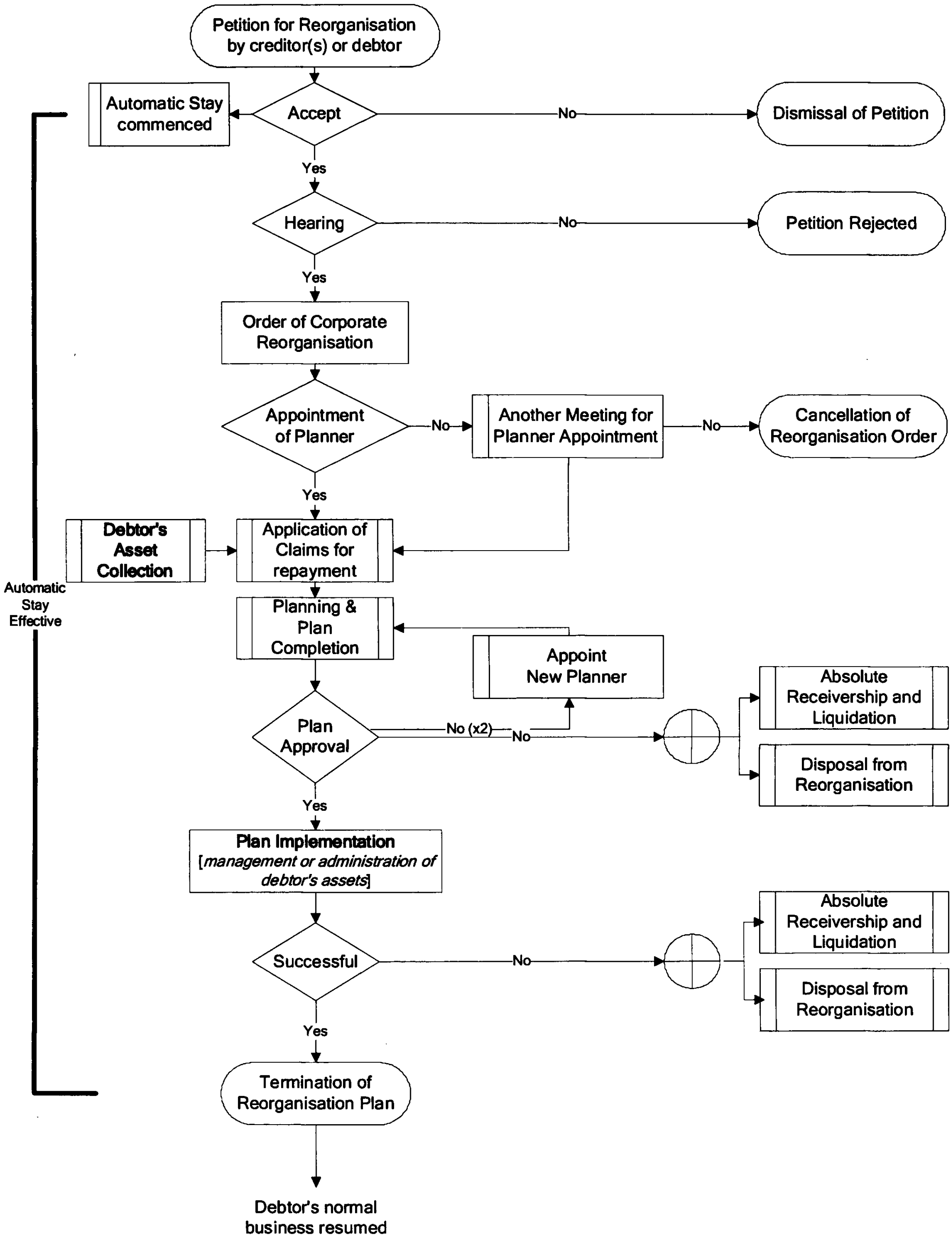

Figure 5.2. Conceptual Framework of Reorganisation

After the appointment of the planner, all creditors (including petitioning creditors) must submit their claims for repayment. Meanwhile, the planner has to draft a reorganisation plan for consideration at the meeting of creditors. In the meantime, if there is no request from creditors for plan revision, the meeting of creditors has to consider the approval of the reorganisation plan using a special voting rule. Such a creditor-approved plan would soon be ratified by the court for final approval.

The approved plan is implemented under the supervision of the official receiver and the court. The plan administrator, who is appointed to implement the reorganisation plan and running the debtor's firm, will be approved as a part of plan approval. During the implementation, the plan administrator is obliged to report progress to the official receiver every quarter.

When the plan administrator indicates that reorganisation has been accomplished, the court has to consider whether this reorganisation has been successful. A successful reorganisation terminates the formal legal restrain over the debtor firm and the debtor's original management is restored. If the court decides that reorganisation has not been successful and the period of reorganisation, five years, is not yet expired, the plan administrator must continue trying to rectify the reorganisation process. In the case that the period of reorganisation has already expired, an extension may be granted providing it is on the reasonable grounds; otherwise reorganisation should be terminated. The termination of reorganisation, nonetheless, does not imply automatic commencement of liquidation (as an alternative method of deployment in bankruptcy). The court has discretion to decide whether the debtor should resume its *status quo* or be liquidated.

5.3.2. Reorganisation Petition

Petitioners

Under the reorganisation provisions, a creditor, a group of creditors, a corporate debtor (but not its shareholders), or a coalition of creditors and the debtor can file a petition for corporate reorganisation. It clearly differs from the petition of liquidation where only creditors have the right to file a petition. Not all juristic persons can file a petition; only limited companies and public limited companies can apply for reorganisation. Single proprietorships, registered ordinary partnerships, and limited partnerships are not eligible to be reorganised. In addition, relevant regulatory bodies of regulated industries can be a petitioner.[62] The debtor firm, even if it has been put into a bankruptcy procedure for liquidation, may apply for reorganisation providing that absolute receivership has not yet been announced.[63]

Furthermore, the petition cannot be withdrawn without court consent before the announcement of the order of corporate reorganisation. After that, the withdrawal is prohibited and the court has no authority to interfere.[64] This is to prevent opportunistic petition. However, this clause is not effective. It is not credible due to the fact that the failure of reorganisation in the latter stages would restore everything to its *status quo*. Thus, no threat is imposed on the petitioner(s).

The Hearing

Requirements for a reorganisation petition are i) the corporate debtor is insolvent; ii) the corporate debtor is indebted to *one* creditor or more for an amount of at least ten million *Baht*; iii) reasonable grounds and prospect for rehabilitation; iv) details of reorganisation planner; and v) the letter of consent from the proposed planner.[65] The court must examine and verify all the requirements. If all conditions are fulfilled, the court will issue an order of corporate reorganisation, otherwise the petition must be dismissed.[66]

Allowing a single-creditor debtor to enter the reorganisation process is inefficient because there is no common pool problem. The single creditor can efficiently decide what to do with the ailing firm. The creditor may choose from all available options, leaving the firm either dead or alive, depending solely on which choice gives the highest return without resorting to bankruptcy. If the creditor has no managerial skill to run the firm, she may hire current owners, managers, or executives to operate the firm under his or her control, as long as this alternative will yield a higher return than others. Thereby, the ownership of the firm is transferred to the creditor and the demoted owner becomes the employee. Otherwise, the debtor may re-negotiate the debt contract with the creditor to achieve a private workout. If this alternative is worth more for the creditor than the non-bankruptcy enforcement, no ownership transfer will occur and the firm will survive. Obviously, bankruptcy plays no role in this specific circumstance. In other words, the Coase Theorem is valid (see Chapter 4).

[62] BA 2541, Section 90/2, 90/3, 90/4.
[63] BA 2541, Section 90/5.
[64] BA 2541, Section 90/8.
[65] BA 2541, Section 90/6.
[66] BA 2541, Section 90/10.

Legal intervention for such a decision gives an incorrect *ex ante* incentive to the ailing debtor to use reorganisation wrongly to conceal its inefficiency. It also impairs the *ex post* efficiency of the bankruptcy system as it wastes resources and time during the process. Nevertheless, this provision gives an insufficient *ex ante* incentive for the creditor to monitor the debtor because, if anything happens, bankruptcy is still an alternative allowing the creditor to seek repayment.

The business debtor must be 'insolvent' to be eligible to apply for reorganisation. This requirement is slightly different from similar laws in other countries. For example, the UK Insolvency Act 1986 requires the inability to pay debts[67] as the precondition for an insolvency application. The Singapore's Juristic Management is the same. The exact proof of insolvency is costly to verify. However, the Act provides a set of assumptions for deciding the debtor's insolvency.[68] These guidelines are the same for personal bankruptcy too which discussed earlier in 5.2.2[69]. Using the same guidelines is inefficient, they are applicable only when creditors have rights to file the petition, not the debtor; otherwise the debtor can strategically and opportunistically mimic those assumptions in the guidelines to enter reorganisation.

The Act should require proof of insolvency using the company's accounts rather than simply rely on assumptions. It should also specify objectively determined criteria to decide debtor's insolvency. Notably, an attempt at debt restructuring, composition, or other private arrangements outside bankruptcy are evidence that the debtor and creditors had been trying to solve the debtor's insolvency Failure, owing to the common pool problem, of such attempts requires bankruptcy.

[67] IA 1986, Section 123 (1).
[68] BA 2483, Section 8, 9, 10.
[69] BA 2483, Section 8 (4).

5.3.3. Consequences of Petition Acceptance

To prevent creditors using their rights to run over a debtor's assets causing an undesirable effect, the reorganisation procedure limits various non-bankruptcy entitlements. The limitation is essential for the success of a reorganisation. Any creditor's action against a debtor may interrupt this process and induce failure. Such limitations are collectively referred to as the '*automatic stay*'[70] (Asaporn, 1998; Wisitsora-At, 1999). The automatic stay freezes all civil lawsuits against the company (Wisitsora-At, 1999). It affects a range of participants: secured creditors, unsecured creditors, long-term contract parties, public utility providers, related government authorities, and the debtor himself (Asaporn, 1998). There are some differences between limitations in reorganisation and in liquidation, particularly on secured creditors.

The Automatic Stay

When the court accepts a petition, an *automatic stay* is effectively enforced. These restrictions last until the termination, expiration, success, or cancellation of reorganisation including the absolute receivership or the disposal of the case. The legal restrictions are applied to the relevant parties as follows.

Debtor

1. no action or request shall be made to dissolve the corporate debtor;
2. the debtor shall not dispose, deliver, transfer, let, repay or create debt, or perform any act that create a burden on its assets beyond what is necessary for normal operation.

Creditors

1. no legal proceedings, no execution, or other legal process (including an action to dissolve or liquidate the debtor firm) may be commenced or continued against the debtor or its property without court orders;
2. no execution by a judgement creditor over the debtor's assets may be enforced or continued, unless the court orders otherwise or the aforesaid execution has been completed;
3. no step may be taken to enforce any security over the debtor's assets, or to repossess any asset in the debtor's possession.

Owners of Asset

In the case that the debtor defaults on or breaches a previously agreed hire-purchase contract, the conditional sale contract where the ownership of which has not yet been transferred to the debtor, or the hire/rental agreement causing damages to contracting parties, the rights of contracting party to reclaim the asset or rescind the contract are temporarily restricted:[71]

[70] BA 2541, Section 90/12.
[71] CCC, Chapter 4.

1. no recall or reclaim of assets involved in the hire contract, hire-purchase contract, or the conditional sale contract shall be made;

2. no legal action or execution shall be made against assets involved in aforesaid contracts;

These restrictions apply only to assets deemed to be essential for the company's operation (core assets).

Company Registrar

The registrar shall not order dissolution of or de-register the corporate debtor.

Regulatory Bodies (for debtors in regulated industries)

No order shall be made by relevant regulatory bodies to revoke the license to operate the business of the debtor or to suspend the operation of the debtor unless the court has approved the request.

Court

1. The court shall suspend the trial of lawsuits against the debtor or his assets – including dissolution, liquidation, and all civil cases if such action or request has been previously brought to the court before the acceptance of the reorganisation petition nor can the court accept any further action of a comparable nature;

2. the court shall not use any temporary measure to execute a debtor's assets.

Generally, secured creditors cannot enforce the repayment of debt by seizing the assets given as a security,[72] unless the court allows her to do so. Long-term contracting parties are not allowed to terminate the contract with the debtor. Utility suppliers are not allowed to disconnect the debtor from the services. The registrar cannot perform any kind of dissolution or de-registration. Regulators who oversee the debtor's business cannot revoke the debtor's license or ask the debtor to suspend the business. Owners of the assets that are important for the debtor's operations neither can repossess the assets nor pursue any legal enforcement against them.

Protection of Non-bankruptcy Rights

To ensure that reorganisation is the best deployment, all affected parties should be at least not worse off than they would be in liquidation or outside bankruptcy. There are protections for those whose rights have been restricted by the automatic stay. Any owner of assets who has an ongoing contractual relationship with the debtor is also protected by the provision that she may terminate or rescind the contract with the debtor under two conditions – i) the debtor defaults on the payment for hire-purchase or usage of assets at least twice consecutively or ii) the debtor

[72] BA 2483, Section 95, 96.

commits a material breach of such an agreement.[73] This allows the contracting party to perform the efficient breach.

Revision of Limitations

Anyone who is restricted by the automatic stay, including creditors, may, furthermore, request the court to amend or cancel the imposed restriction according to Section 90/12 if such restriction

1. is not necessary for reorganisation, e.g., the property in question is a non-core asset or not contributing to a success or failure of reorganisation, or
2. does not provide sufficient protection for the rights of secured creditors.[74]

Sufficient Protection of Secured Creditors

The following actions are deemed to provide sufficient protection to secured creditors:

1. repaying part of the debt to the secured creditor equivalent to the reduction of value in that security under the restriction;
2. giving a new security to the secured creditor to compensate the reduction of value in the security under the restriction;
3. sanctioning any action that the secured creditor agrees upon or that the court thinks would lead to the secured creditor being paid a sum equivalent to the value of the security plus interest and other benefits according to the original contract.

Limitations of automatic stay do not differ much from other counterparts.[75] They are based on the rationale that all a debtor's assets must be restored as much as possible and the collecting process should be efficiently managed. Any unnecessary asset may be released from these restrictions or, if it is owned by the debtor, may be sold off, if it increases the value of the debtor's estate.

[73] BA 2541, Section 90/12 (8).
[74] BA 2541, Section 90/13.
[75] For example, the UK equivalence of BA 2541, Section 90/12 is IA 1986, Section 10 (1).

More interestingly, the definition of sufficient protection plays a crucial role in reorganisation because the rights of secured creditors are differently treated, compared to liquidation. Secured creditors are at least not worse off in liquidation, compared with their non-bankruptcy entitlement, because they are not required to sacrifice their securities for the asset pool. But in reorganisation, they are apparently worse off when they cannot enforce their securities. Thus, the compensation, or the sufficient protection, is essential, otherwise all secured creditors would change their *ex ante* lending behaviour.

If the firm is believed to worth more alive, this means there is a surplus from reorganisation which can be redistributed to all creditors. Successful reorganisation, unquestionably, makes unsecured creditor, debtor's shareholders, employees, and incumbent management, including trading partners, better off. Hence, the surplus from reorganisation should be able to compensate secured creditors and at least assure that at least they are not worse off.

Sufficient protection should be defined in such a way that secured creditors are indifferent about co-operating in reorganisation or pursuing in liquidation or outside bankruptcy. Using non-bankruptcy enforcement or liquidation, the secured creditor can foreclose the security and sell it, normally by auction. Then, she realises the proceeds from such sale and invest it in any positive return project (the minimum rate of return is the risk free interest rate). The bottom line of secured creditors' protection should be based on this fact. As the reorganisation process takes time, the adequate protection, in terms of economics, during the proceeding is risk free interest on the principal equivalent to the market value of the security. So creditors are indifferent between earning this amount of interest in reorganisation and earning the same amount by enforcing their rights and investing in the risk free project. In other words, secured creditors act as if they extend their loans to the debtor.

Three presumptions of adequate protection under this Act are not directly compliant to the concept above. They are subject to legal interpretation. They might be interpreted along the economic concept, depending on how the court or practitioners determine 'the reduction in the value of the security.' Adequate protection cannot be ascertained directly from provisions because the time value of money is not being considered. The standard project evaluation and appraisal method should be instated in order to help determining a proper level of protection.

5.3.4. Appointment of Reorganisation Planner

When the court has issued the order of reorganisation, the formal appointment of a reorganisation planner must ensue. During this period, the court must appoint an interim administrator to temporarily run the business of the debtor's firm under the supervision of the official receiver. The authority of the interim administrator is terminated when the court approves the reorganisation planner. Any individual, group of individuals, juristic person, or debtor's executives can be designated as the interim administrator. The court has the discretion to discharge the interim administrator if it sees fit.

The candidate for reorganisation planner can be nominated by i) the petitioner(s) in the petition, ii) the incumbent management of the debtor and iii) any creditor who objects to i). The Act automatically elects the nominee proposed by the petitioner(s) as a planner, unless the court disagrees or there is an objection from any creditor. If the court disagrees with the petitioner's nominee or there is an objection, the creditors' meeting is convened to consider the planner appointment. The following rules are applied.

1. If the incumbent management of the debtor does not nominate anyone, the simple majority rule is implemented;
2. If there are candidates nominated by the debtor and creditors, the creditor's candidate must gain at least two thirds of total votes to be elected; otherwise the debtor's candidate must be selected.[76]

The appointment of the planner must be endorsed by the court order. The court must appoint the selected planner unless the court is not satisfied with the nominee. Given the dissatisfaction of the court, it may ask the official receiver to summon a meeting of the creditors to choose a new nominee. The court has no authority whatsoever to nominate and appoint any one who has not been nominated by the three possibilities mentioned above but does have the discretionary power to cancel reorganisation if no suitable planner is found (Supanit, 1999).

[76] BA 2541, Section 90/17

The Meeting of Creditors

The meeting of the creditors is necessary to nominate the reorganisation planner when the court does not agree with the nominee in the petition. The debtor's management and/or executives must also attend the meeting to inform creditors about the company's affair as well as to answer any question that may arise. The provision requires the interim administrator to attend the meeting too. Nomination of reorganisation planner requires majority voting based on the value of debt owned to the creditor in case the debtor does not nominate his own planner. When the debtor nominates the planner, a special resolution is required where at least two thirds of the value of debt will enable a resolution to be passed.

Creditors' Voting Rights[77]

To have the right to vote for the appointment of the planner, creditors must submit their claims for repayment under reorganisation. This means the obligation must be created before the date of the reorganisation order, regardless of whether the debt is due or not. The official receiver shall investigate the claim presented by each creditor to determine each creditor's voting right. The debtor and other creditors are entitled to object to the claim as well as examine the relevant evidence being used to prove the obligation. The decision of the official receiver on the voting right is final. The voting right does not affect the actual repayment from the reorganisation process and it cannot later change the resolution for the appointment of the planner, if the court admits the different value of debt. Secured creditors are entitled to have a voting right equals the face value of their debts.

The Effect of the Appointment of Reorganisation Planner

After the appointment of the reorganisation planner, the planner has the sole authority to manage and run the debtor's business. The interim administrator or the official receiver would be automatically discharged. The planner is obligated to draft the reorganisation plan within three months from the date of appointment.

The debtor's incumbent management, the interim administrator, and the official receiver must submit a statement of the company's affairs that contains the detail about the debtor's business, assets, debts and liabilities as well as other obligations the debtor may have with third

[77] BA 2541, Section 90/22, 90/24, 90/26.

parties, creditors' details, securities held by creditors, other assets in debtor's possession, a list of shareholders, a detail of related subsidiaries or hosts, debtors' details, and forthcoming assets.

The selection of reorganisation planner is the first mechanism in the process to realise the true value of the ailing firms to all claimants. Apparently, the Act is biased towards the petitioner-nominated candidate. Next, it favours the debtor. When the debtor nominates the planner, the majority rule is applied to approve this planner. But when there are many candidates nominated by debtor and creditor(s), the creditor-nominated candidate must be backed by two thirds of the total votes; otherwise, the debtor-nominated candidate is automatically elected. From the outset, creditors' expectation or belief about the most suitable deployment of the company is divergent, particularly when information asymmetry is evident (Baird, Gertner, and Picker, 1994). Therefore, it is unlikely for creditors to nominate their own planner. The Act, instead of alleviating the common pool problem, allows it to hinder the planner selection. On the other hand, this clause is to prevent a creditor, with a majority claim from nominating the planner who directly serves her at other creditors' expenses. However, at this stage, it would be beneficial to attract as many alternative rescue plans as possible. The voting rule could be adjusted to avoid such dominance. For instance, it would be possible to use the special resolution rule or have a second vote in order to achieve the simple majority: firstly, each creditor has a voting power equal to her claims and, secondly, each creditor has one vote (one-man-one-vote); the planner could be elected if and only if it won the majority in both votes. This would bring more competition for various rescuing plans and creditors would have a chance to select the one they think would give them the highest repayment.

5.3.5. Submission of Claims for Repayment under Reorganisation

All creditors, including judgement creditors, affected by the automatic stay can only pursue repayment by submitting their claims in the reorganisation proceeding since their non-bankruptcy rights are nullified by the automatic stay. Applications are accepted within one month from the date of the appointment of the planner. Any creditor who fails to submit the claim within this pre-specified period is presumed to have waived her rights for repayment.[78]

[78] BA 2541, Section 90/26.

Applicable versus *Non-applicable Debts*

The debt can be applied for repayment in reorganisation if the obligation was originated before the date of the reorganisation order whether or not it is due. Creditors of debts which have been incurred before reorganisation have to apply for repayment owning to the restrictions imposed by the automatic stay. This is to ensure that no creditor tries to pursue repayment outside bankruptcy and no two contradictory procedures are in force at the same time. Any creditor who neglects the application of her claim is presumed to forgive the debt and the obligation between her and the debtor is invalid and no longer recognised. Anyone who is affected by the automatic stay and the nullification of an executed act (discussed later) can also apply for compensation arising from such legal restrictions.

Some types of debt are not applicable for repayment. Debts created between the date of petition acceptance and the date of the reorganisation order cannot be claimed unless they have been honoured by either the planner or the official receiver. This discourages an attempt to make the fraudulent transfer of a debtor's assets during financial stress to the third parties damaging the business of the debtor and genuine creditors. This also prevents unnecessary burdens for the debtor's company before reorganisation commenced. Secured creditors may enforce repayment by repossessing the security without applying for repayment subject to the official receiver's permission upon inspection of the asset given as a security[79] [i.e., if the security is a core asset, that secured creditor cannot foreclose the security because it is essential to the debtor's operation as well as success of reorganisation (Supanit, 1999)]. Any debt made by the official receiver or the interim administrator, as well as debts characterised by Section 90/12 (8) and (11), cannot be claimed under reorganisation.

Debts made during Reorganisation

Creditors of debts instituted during reorganisation are subject to repayment without having to apply for repayment.[80] Such debts are created by the planner, the plan administrator, the interim administrator, the official receiver, or other authorised agents. Taxes and levies as well as all other debts required by other laws are included.

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[79] BA 2541, Section 90/28.
[80] BA 2541, Section 90/27, 90/62.

Debts in this category have higher repayment priority than the applicable debts mentioned above. Debts created in reorganisation gain higher priority for repayment than applied claims[81] because this gives an incentive for new potential creditors to assist with reorganisation. No creditor would lend any money to the ailing firm if she were likely to be unpaid.

Verification of the Creditors' Claims

Creditors, the debtor, or the planner may request verification and/or oppose any claim within fourteen days after the deadline of the application. For each application, if there is no objection, the creditor is entitled to the votes (voting right/power) equal to a full value of claimed debt. If there is an objection to a particular application, the official receiver must investigate and decide the voting right for the creditor of that claim. Actual repayment, however, is subject to the investigation by the official receiver who has the power to remunerate full or partial entitlement of the submitted value or reject the application.[82] The court has the power to finalise the admission or rejection of all applied claims based on the report and suggestions of the official receiver.

5.3.6. Reorganisation Plan and its Approval

The Plan

The planner is responsible for the drafting of the reorganisation plan within three months of the formal appointment.[83] The plan must show the followings in detail:

"1. an account of the circumstance giving rise to the application of reorganisation;

2. details of assets, debts, liabilities, and other obligations of the debtor's firm;

3. the principles and procedures of the proposed reorganisation

a. the manner in which reorganisation would be carried out;

b. proposed debt repayment schedules, debt rescheduling, and debt forgiveness (so-called *hair cut*);

c. the classification of creditors, which are

i) secured creditors whose secured debt is account not less than 15 per cent of the total repayable debt,

ii) secured creditors who are not covered by in i),

iii) unsecured creditors, who may belong to different groups, should be classified on the basis of similar rights or similar benefit,

iv) subordinated creditors who are repaid after other creditors have been fully paid according to the law or the agreed contract;

[81] BA 2541, Section 90/62. Similar priority in IA 1986, Section 19(5).
[82] BA 2541, Section 90/30, 90/32.
[83] BA 2541, Section 90/43.

Creditors within the same group must be treated *pari passu;*

d. adjustment of the capital structure of the firm,

e. debt creation and fund raising, sources of fund, and conditions imposed on aforementioned debts,

f. management of the debtor's assets and their returns,

g. a dividend policy or other policies regarding the redistribution of gained benefits;

4. the redemption of collateral or securities;

5. a contingency plan for a temporary liquidation problem during the implementation of the plan;

6. procedures to handle the transfer of claims[84];

7. details of plan administrator, remuneration, and the letter of consent from the proposed plan administrator;

8. the appointment, resignation, and vacation from office of the plan administrator;

9. the plan implementation period, which is not to exceed five years;

10. the cancellation of the asset acquisition or the executory contract that incurs costs which may exceed the benefits."

Additional Exemption from Legal Provisions

In the planning process, some legal provisions are not applicable to reorganisation in order to facilitate the process. Principally, the exemption helps the restructuring of corporate financial structure, i.e. it increases or decreases capital, to facilitate a merger or an acquisition, and/or convert debts into equities, as well as loosen the rules on corporate control.[85]

Plan Approval

When the planner has submitted the completed draft of the reorganisation plan, the official receiver shall summon the creditor's meeting for the consideration and decide whether to approve the proposed plan.

[84] Claims, of a certain nature, cannot be transferred; otherwise the transfer may harm the contracting parties. For example, the firm hires a famous singer, say Luciano Pavarotti, to perform in the concert it organised and sold tickets for. A claim by the firm on Pavarotti's performance cannot be transferred to other tenor singers because the audiences who bought tickets want to hear Pavarotti, not others.

[85] CCC, Section 1117, 1119, 1145, 1220–1228, and 1238–1243; Public Limited Company Act B.E. 2535, Section 31, 33, 50, 51, 52, 54, 84, 102, 107, 116, 119, 136, 137, 139–141, and 146–148; Securities and Exchange Act B.E. 2535, Section 39 shall not apply to the reorganisation process.

Originally, to approve the plan a special resolution[86] of at least three quarters of total debts **and** a simple majority of the number of creditors (one man, one vote) was required.[87] However, the voting rule was amended later. It involves the classification of creditors according to the 'nature' of their claims.[88] The modified voting rule requires

1. the special resolution – at least three quarters of voting rights (determined by the amount of debt) and a simple majority of the number of creditors – in each and every class[89] **OR**

2. the special resolution of at least one class of creditor (excluding creditors who are presumed to accept the plan[90] (see below)) plus approval votes using a simple majority in all other classes that form a simple majority.[91]

A similar voting rule is applied to the appointment of a new plan administrator in the case that the previous plan administrator vacates the office *mutatis mutandis*.

Section 90/46 *bis* of the Act considers the following types of creditor as creditors who are presumed to approve the plan. Hence, they have no voting right:

1. creditors who, by the plan, are entitled to be repaid all debts including interests for the whole period of default and have the right to be repaid in the future according to the debt contract or agreement as if the debtor never defaults on such debts;

2. creditors who, by the plan, are agreed to be repaid in accordance with the debt contract or agreement;

3. subordinate creditors who, primarily, are entitled to administrative fees according to Section 130 *bis*.

If the plan is rejected, the official receiver must report to the court. The court must decide the appropriate action either to liquidate the debtor or to release the debtor to its *status quo*.[92]

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[86] BA 2483, Section 6.
[87] BA 2541, Section 90/46.
[88] BA 2543, Section 90/42 *bis* and 90/42 *tri*.
[89] BA 2543, Section 90/46 (1).
[90] BA 2543, Section 90/46 *bis*.
[91] BA2542, Section 90/46 (2).
[92] Empirically, the bankruptcy court never evict any debtor to be liquidated in reorganisation

Any creditor, the debtor, or the planner may request a revision of that plan as well as a change of the proposed plan administrator. Additional voting is required to agree upon the request for revision using the abovementioned rule *mutatis mutandis*. The planner, however, has the right to deny the request for revision.

The modification of the plan with the planner's consent must be considered and approved by the voting rules described above. In the case that the planner refuses to modify the plan and the meeting does not approve the unmodified plan, the meeting of creditors may decide to appoint a new planner. The appointment of a new planner can be made in that meeting and the court must confirm the new planner according to the meeting's resolution. The new planner is obligated to deliver a new proposal within 45 days.

If the meeting fails to appoint a new planner, or passes no resolution about a new planner, or the court denies the proposed new planner, the court must later make the order of absolute receivership on the debtor firm or discharge the debtor from reorganisation.[93]

The voting rule comprises of two types of vote determination. One is based on the amount of the debt – a creditor with large debt has more voting rights. Another is based on the number of creditors – every creditor has one vote each (one man, one vote). The special resolution rule according to Section 6 in the Act requires both types of vote. It requires the majority of at least three quarters (75 per cent) of total debt and a simple majority from the number of creditors. This rule is devised to prevent the dominance of a major creditor who can vote for the plan that serves her interest best at other creditors' expenses and vote against all other options.

Initially, this rule must be implemented for plan approval. However, the rule has been amended by introducing the creditor classification, softening the rule, and assuming that some creditors will automatically approve the plan as described above. Therefore, the voting rule has been relaxed and plan approval is easier to achieve. This further implies that the law substitutes the cost of delay for the cost of making someone worse off. In other words, the law makes a trade-off between *Type I* and *Type II* errors by substituting the error of liquidating efficient firms for the error of reorganising inefficient firms.

[93] BA 2541, Section 90/52, 90/48.

The creditor-approved reorganisation plan is subject to court consideration and approval before implementation. The court must consider the detail of the meeting including objections, revisions, or other comments made during the consideration.

The court must approve the reorganisation plan if all following conditions are fulfilled:

> "1. the plan contains all information required by the Act;
> 2. debt repayment proposal -
>   i) gives no preference to any creditor within the same class,
>   ii) corresponds with the order of repayment as described in the liquidation process if the resolution that approves the plan is not the special resolution of every creditors' class, unless that creditor consents to the plan;
> 3. no creditors must be repaid less than if the company being liquidated, when the reorganisation process is accomplished."

The court's approval dictates the transfer of all rights and duties of the debtor firm from the planner to the plan administrator. If the court does not approve the plan, it may consider that the debtor firm should be liquidated or the debtor firm should be discharged and restored to its *status quo*. Even if the debtor firm was in liquidation prior to reorganisation, the court has the right to discharge the firm from liquidation too.

The reorganisation plan is the most important factor determining the success of reorganisation. Its importance is two-fold. On one hand, it is the implementation of reorganisation as the most efficient way of the company's deployment. On the other hand, the reorganisation plan contains a mechanism for wealth (loss) redistribution among all claimants. Hence, there are two questions to be answered **simultaneously** upon the approval of the plan. First, "Is the firm worth more alive than dead?" Second, "Is anyone worse off in reorganisation?" If every claimant answers 'No' to the second question, an answer to the first question can be presumed to be 'Yes' *but* **not** *vice versa.* The Act treats any creditor who is not worse off under the plan as a creditor who approves the plan. Because such creditors are indifferent to or better off in reorganisation, they can be presumed to support the plan. Not allowing such creditors to vote is to avoid the possibility of strategic voting (or vote buying by other types of creditors). Their votes may allow them to extract more benefit for themselves at other creditors' expense. As long as the benefit outweighs fines and punishment, this type of creditors could also secretly 'sell' their votes for the side payment to other voting creditors, even though there are prohibitive clauses from so doing.[94] The logrolling may occur especially when creditors share the same debtors in reorganisation.

[94] BA 2543, Section 90/85 and 90/86.

If the answers are both 'Yes,' the plan should not be approved. If and only if when the first one is 'Yes' and the second one is 'No,' the plan must be implemented. Notably, a 'Yes' to the first question implies the existence of a surplus that could be redistributed in such a way that no one is made worse off. Thus, any plan approval that satisfies these two conditions is efficient. To answer both abovementioned questions, the period of plan formation (and revision) is actually the period for renegotiations between creditors and the debtor.

5.3.7. Implementation of Reorganisation Plan

The plan administrator has the sole right to control the company once the plan is approved. Control rights are transferred from the planner and the firm must be managed according to the plan. The plan administrator may request an amendment to the Articles of Association and/or Memorandum of Association, providing that such an amendment complies with the reorganisation plan. The modification or revision of the reorganisation plan is allowed, given that it is approved by creditors using the voting rule in plan approval *mutatis mutandis*. The revision can only be initiated by the plan administrator, not the debtor or creditors. The plan administrator must report the progress of the plan implementation to the official receiver every quarter. If the plan administrator fails to manage the debtor's firm in compliance with the plan, performs the duties dishonestly, or causes any harm or damage to the firm, the court may discharge the plan administrator. The plan administrator can also be removed if he or she is proved incompetent or disqualified.

When the plan administrator vacates the office, a meeting of creditors must be summoned by the official receiver to appoint a new plan administrator. If the creditors' meeting fails twice to elect a new plan administrator, the court has the discretion to appoint its own plan administrator, order the absolute receivership, or cancel the reorganisation process. During the vacancy of a plan administrator, the court may temporary assign an interim administrator.

5.3.8. Nullification of Executed Acts and Treatment of Executory Contracts

As in liquidation, certain types of executed acts or transactions are nullified to increase the pool of asset for the benefit of reorganisation. Nullification is governed by Section 90/40 and 90/41. The following juristic acts can be nullified:

1. a fraudulent act – an act in which the debtor intends to avoid the repayment,
2. a gratuitous act – an act in which no remuneration is given to the debtor,

3. transaction in which the debtor receives inappropriate remuneration (i.e., less than market value),

4. a preferential act in which the debtor intended to favour one over other creditors.

Executory Contract[95]

The plan administrator may decline to perform an executory contract, or to receive any asset, if the burden or the costs in which may exceed the benefit. Any rejection must be within two months after the court's plan approval and must be complaint with the plan. For example, where the company has invested in a certain project before the petition and has a contract with the supplier to supply a certain raw material for to use with that project; if the reorganisation plan decided to keep this project, the contract with the supplier cannot be breached.

These provisions regarding nullification are provided to increase the pool of asset available for reorganisation since the debtor has an incentive, when insolvency is becoming inevitable, to reallocate his assets in order to prevent foreclosure by secured creditors or a court-appointed execution officer in a non-bankruptcy proceeding. Also, he may have an incentive to engage into 'too risky,' 'gambling,' 'inefficient,' or 'negative expected return' investments in the hope of obtaining a better return. Therefore, such actions must be discouraged and revoked and associated assets should be returned into the debtor's estate. The transaction that involves an under-market-value trade, gratuitous purpose, or which is significantly different from ordinary business practices (e.g., offering a higher valued security to a particular creditor without extending the loan) is subject to being revoked because such transaction is **not** *bona fide.* All affected parties can submit their claims for compensation in reorganisation. The compensation should make them indifferent as if no asset has ever been confiscated. Therefore, the compensation should be equivalent to the cost of acquiring the asset in question (normally below market prices), plus a time value for money for the period of possession. No explicit criterion was made in this Act concerning the calculation of compensation.

For executory contracts, the Act's treatment is based on the concept of *efficient breach of contract* (Cooter and Ulen, 1997) whereby, if the executory contract appears to be too costly for whatever reason, a better-off party that gains from the breach can compensate the damaged

[95] BA 2543, Section 11 replacing BA 2541 90/41 *bis* that gave the discretion of the court to suggest the official receiver or the plan administrator how to deal with such executory contract.

party to ensure that at least she is not worse off. The compensation, again, is not explicitly specified in the Act.

5.3.9. Termination of Reorganisation

Reorganisation is terminated under two circumstances:

i) the reorganisation process is accomplished; or

ii) the period of reorganisation is expired.

The debtor's executives or director, the plan administrator, the interim administrator, or the official receiver has the right to request the court to order the termination of reorganisation.

Successful Reorganisation[96]

When the reorganisation process is believed to have been accomplished, the court must be informed. The court shall promptly summons a hearing to consider the termination. The hearing must confirm that the reorganisation is successful and the termination of reorganisation is subsequently announced. If the court found that reorganisation has not yet been successful and the period of reorganisation has not yet expired, the court must allow the plan to continue. If the period of reorganisation has expired within that time and the court thinks the proceedings are almost complete, the court may approve on extension. But if the court thinks the proceeding is unlikely to be successful, it may order the absolute receivership or cancel the reorganisation process.

Expiry of Reorganisation

If the period of reorganisation has expired and the success is not prevailed, the court must order either the absolute receivership, implying liquidation is followed, or the cancellation of reorganisation, releasing the debtor back to its *status quo*, as the court sees appropriate.

Effects of Termination

When the court has ordered the termination of reorganisation, the order has the following effects:

[96] BA 2541, Section 90/70.

1. the debtor is released from all debts prior to reorganisation except debts that creditors have applied for repayment in reorganisation;

2. the debtor's incumbent management regain its power to control the company and its assets;

3. all legal rights of company shareholders are resumed;

4. the remuneration of the interim administrator, planner, plan administrator, and temporary plan administrator, as well as debts created by these persons and the official receiver – except the debt arising from a wrongful act or tort – are transformed a the preferential debt over all the debtor's assets in the rank determined by the Civil and Commercial Code, Section 253 (1).

When reorganisation is terminated, corporate control rights will be transferred to the debtor's management allowing its normal operation to resume, regardless of the result[97]. Unlike the UK Insolvency Act 1986 that directs the prompt liquidation of any failed-to-reorganise firm (Goode, 1995), the court retains its discretionary power to decide whether the failed firm should be liquidated. Creditors have to pursue their rights either outside or inside bankruptcy using liquidation after the failure. Owners and managers of the firm should be allowed resume their power only when the firm, at the time of petition, is economically efficient but financially distressed.

Permission for the debtor's director to reacquire firm control without considering the debtor's efficiency (or competence) prior to insolvency is another important flaw of this procedure. It gives the *ex ante* wrong incentive for the debtor and its management to be inefficient because they always retain control rights when reorganisation is terminated – with or without success. Moreover, there is no option for the incumbent management to be replaced by creditors after reorganisation (apart from the conversion of debt into equity) as provided by the UK Insolvency Act 1986 (Goode, 1995) and the US Bankruptcy Code (White, 1998). Hence, the threat of losing corporate control (or the threat of being replaced) is non-existent.[98] Such a threat acts as an *ex post* screening mechanism for the managerial inefficiency of the current owners and managers and an *ex ante* incentive for the debtor firm and its management to improve their efficiency.

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[97] BA 2541, Section 90/74.

[98] The threat of being replaced is crucial for the managerial efficiency. With no insolvency, the possibility of being replaced is very low (in Thailand's context). Instead of inducing such a threat in reorganisation, the Act precludes the competition for the management of the firm.

Furthermore, Cornelli and Felli (1996) show that the allocation of the ownership of an insolvent firm's equity to creditors, prior to the commencement of reorganisation, is very important element of achieving *ex ante* and *ex ante* efficiency. By giving creditors the rights to control the debtor's assets, it eventually makes creditors better off. When they have a right to structure the auction themselves, the value realisation could be higher than under other procedures. They may auction off only a control stake (e.g., fifty percent) and retaining a minority of shares. This way the *ex post* efficiency is achieved. The threat of losing firm control imposed on the debtor induces them to improve its efficiency *ex ante*.

5.3.10. Penalties

Provisions for penalties are defined to cope with any act that damages the debtor firm and the reorganisation process as well as to prevent the misuse of the Act by the debtor's incumbent management. Duties on a debtor's incumbent management, creditors, and reorganisation practitioners are specified. There are also general provisions for all persons involved during reorganisation.

Penalties for any action that may harm or impair the reorganisation process are civil and criminal charges, except for the planner, plan administrator, or persons with similar authorities who are subject to release from the duty. However, no discharge of a debtor's managerial positions is possible. This absence of discharge or disqualification of debtor's directors gives the incorrect *ex ante* incentive for not improving managerial efficiency and may increase moral hazards as they may well become more risk-taking.

5.4. Economic Inefficiency and Weaknesses of Thai Bankruptcy System

Apart from many points raised regarding inefficiency of the Thai bankruptcy act above, we can summarise the weaknesses of the system in this Section; these weaknesses are examined according to the flow in the procedure.

5.4.1. Screening

Non-bankruptcy Alternatives as an Informational Source

Bankruptcy procedure is a part of the whole financial system to deal with the financial distress. It is not independent and isolated. Its role, as a collective action, is important when the common pool problem deters the financial market to function properly for the renegotiation of financial contract. Evidence of an effort to attain the settlement from non-bankruptcy alternatives is very important for the proof of common pool problem. The common pool problem may be too critical and bankruptcy may be needed if there are such attempts and they were failed. Going straight to reorganisation can be suspicious, especially when the debtor himself is the petitioner. The efficient firm should be capable to persuade its creditors to achieve a settlement before getting to bankruptcy unless its true state cannot be easily verified. If the present owner and/or management is the most efficient to run the company, they should be able to convince potential buyers to hire them as a manager or convince lenders for the debt restructuring or composition without seeking for bankruptcy.

Such information can effectively help the Act or the court to screen the firm that is about to be reorganised. Thai Bankruptcy Act does not consider this kind of information seriously for the screening problem.[99]

Lack of Objective Measurements

The screening process should contain easily and objectively verifiable criteria to identify whether a particular firm really reorganisation. At present, the Act allows relevant authorities, especially the court, to exercise their judgement on their own discretion without a proper verifiable guideline, virtually from the beginning until the end (the problem of discretion is analysed below). This does not help the convergence of diverse beliefs on the debtor's prospect but create more disputable issues from various involving parties as well as uncertainties. The concrete and objectively verifiable measure must be implemented wherever possible in order to avoid further disputes.

5.4.2. Procedural Bias

It is apparent that the real objective of introducing reorganisation is 'to rescue' the ailing debtor company, not to improve its efficiency. There are many explicit remarks that reorganisation should be used to preserve the company and its employment. Subsequently, there are legal biases inclining to favour the debtor and sacrificing efficiency.

[99] According to BA 2483, Section 9: 'if the debtor proposes the debt composition with more than two of its creditor..,' this can be used as an indication of common pool problem that may be used more effectively.

Planner Selection

The nomination of reorganisation planner is a clear example (see 5.3.4). There is a bias in the selection process. The Act should attract as many as possible prospective planners to be available for creditors' selection. Although the incumbent management is the one who knows best about the troubled company, it does not mean other competing managerial teams or planners cannot run the company. If the company is in a *contestable market*, prospective management should be fungible and creditors can choose the most appropriate one. On the other hand, if the company has high asset specificity and human capital inalienability, it is very difficult to find the competent planner. The debtor-proposed planner would eventually be selected (with high probability). The nature of the debtor's business would dictate the proper selection of planner without requiring legal intervention. However, one may argue such a provision in favour of debtor is to prevent the dominance of a sufficiently large creditor. Such dominance could be technically avoided by using appropriately designed mechanism.

Debtor's Reversal to **Status Quo**

Another important issue of bias is that the Law allows the debtor to resume its *status quo* whenever reorganisation is terminated (regardless of underlying causes: it could be from the cancellation, premature termination, success or failure). The Act disregards the fact that liquidation and reorganisation are two choice of debtor's asset deployment under the same problem of bankruptcy. Being admitted to the bankruptcy procedure[100], the rule of law must be able to channel the ailing company to the highest valuation method. If one is failed, another must automatically ensues. There is no economic reason for releases the firm back to the previous status because non-bankruptcy solution is definitely inferior to bankruptcy one (liquidation or reorganisation). Otherwise, bankruptcy should not commence in the first place.

The reversal to the *status quo* should be granted only when i) the firm is successfully reorganised or ii) reorganisation is cancelled on the basis that the debtor has reached the agreement with its creditors outside bankruptcy. Otherwise, if reorganisation is failed or terminated due to obstructions (such as a failure to elect planner or to approve the plan), liquidation must be followed. The Act has also misplaced the cancellation of reorganisation as the consequence of the failure to appoint the planner.

[100] This implies the non-bankruptcy solution could not be achieved.

The disagreement on the planner appointment testifies that the common pool problem exists – creditors are unable to achieve any settlement. The firm should be in bankruptcy. If the firm is released, they are also unable to settle on any non-bankruptcy arrangement and eventually will seek for liquidation. Thus, liquidation should be automatically commenced to minimise the cost and waste no more time or resource. This would provide the correct threat for the debtor's incumbent management not to use reorganisation strategically.

Recognition of Non-bankruptcy Entitlement

The Act strictly honours the non-bankruptcy (or pre-bankruptcy) entitlements according to the absolute priority rule (APR), particularly for secured creditors. However, there are evidences, especially from Chapter 11 of US Bankruptcy Law, that the absolute priority rule is violated. It implies that, to a certain extent, creditors are able to suffer from the loss in bankruptcy rather than receive nothing outside. The priority could be retained by keeping the ***ordinal*** rank of entitlement but not the entitlement to full repayment. There should be redistribution of loss amongst creditors depending on their abilities to absorb the loss. We suggest a different mechanism to do so in Chapter 6 that depends on the structure of Thai business practices.

5.4.3. Discretionary Power

The Thai bankruptcy law authorises the court to exercise its 'appropriate' discretionary judgement when there is an impasse during bankruptcy proceedings at various points. The court has the right to choose between to liquidate the debtor or to let the debtor resumes its *status quo* when the proceeding of reorganisation has entered a deadlock. For following circumstances the court allows to take action and exercise its power:

i) unable to approve a reorganisation plan,

ii) unable to approve a new plan administrator (when he had vacated the office),

iii) the court disagrees with the plan approval,

iv) unable to settle on the plan modification or revision, and

v) unsuccessful reorganisation or a reorganisation period has expired. These clauses appear in Section 90/46, 90/68, 90/58 (with 90/48 para 4) and 90/72 para 2 respectively. See Figure 5.3 for a schematic representation of this process.

From the outset, the court is a least-informed party in a bankruptcy problem. The proper role of the court is to align divergent expectations of involved creditors in order to achieve the efficient outcome using structured bargaining legal regime(s). It is true that some creditors have more information about the debtor than others. Debtor knows himself best and may not reveal some crucial facts that could beneficial everyone. Bankruptcy law should be designed to facilitate the flow of information about the debtor's business to all claimants. Exposing to the same set of information (as better-informed parties), creditors would be more efficient to make the decision what to do with the debtor's company. The court, hence, shall not exercise the discretion to decide the debtor's faith since it is going to be inefficient. Granting the court the discretion can distort real preferences of creditors to favour a particular mode of deployment.

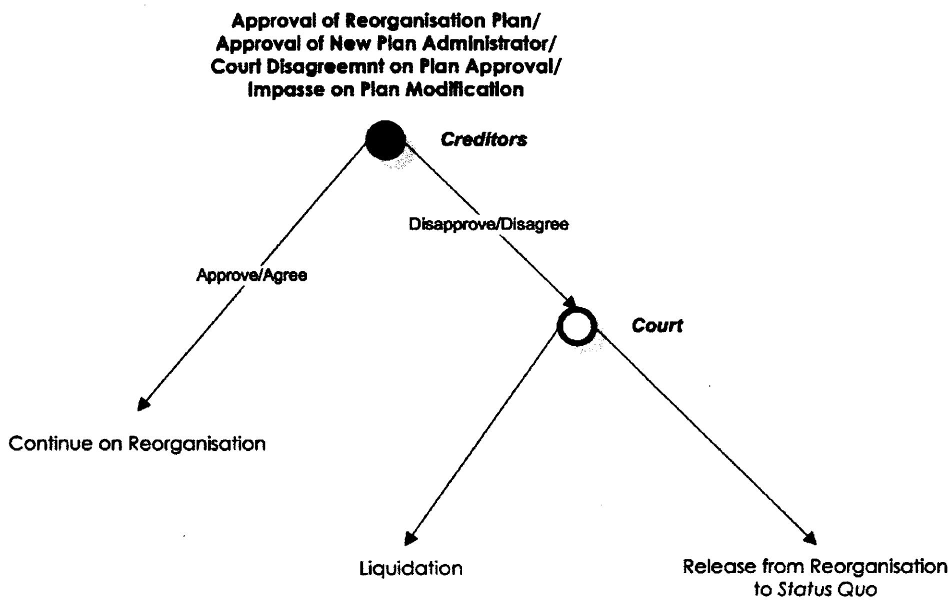

Figure 5.3 Schematic Representation of Court's Discretionary Authority during an Impasse

Distortion of Creditors' Preferences

Assuming the voting rule and the distribution of creditors' preference – between liquidation and reorganisation – as well as the prospect of the debtor are exogenous. Given there are N creditors. Each creditor c_i (where $i = 1, .., N$) has the realised value when the debtor firm is reorganised as r_i and is liquidated as l_i – these values are exogenously determined. It is not necessary to have the same value as of other creditors, c_i: $r_i > l_i$ but c_j: $r_j < l_j$.

Any rational voter will voluntarily vote for the choice that gives the highest return as long as one's vote is not a decisive vote and no side payment is allowed. One will vote for reorganisation, all above conditions hold, if $r_i > l_i$ given one's non-bankruptcy entitlement.

Analogously, one will vote against reorganisation if $r_i < l_i$. One will be indifferent between two deployments if $r_i = l_i$. For any creditor c_i, reorganisation is preferred to liquidation implies the return this particularly creditor will receive from reorganisation is higher than from liquidation and *vice versa*. She will vote for reorganisation.

Creditor's choice needs not to be coincided with total valuation of debtor as a whole, either L for liquidation or R for reorganisation. This means even $L > R$, a particular creditor could have $r_i > l_i$ (i.e. prefer reorganisation to liquidation).

We further assume that the distribution of $N - 1$ creditors' preferences causes an impasse of reorganisation – votes for reorganisation just falls short of two-third. The court needs to step in to decide whether to liquidate this debtor or to release it back to its *status quo*.

A sole remaining creditor c_x is assumed to be a decisive voter (if she selects reorganisation, reorganisation will be approved by special majority rule). Suppose she prefers liquidation to reorganisation ($l_x > r_x$) and suppose $L > R$ coincidentally. Thus, if she casts her vote honestly, an efficient choice will be selected. Note that c_x does not know that she is a decisive voter.

What happens next is that the court chooses between liquidation and release of the debtor. Suppose the court choose liquidation with probability p and release with probability $1 - p$. Subsequently, c_x reviews her preference because her l_x becomes pl_x ($pl_x < l_x$) while her r_x remain unchanged (assuming c_x is an unsecured creditor who expects to earn nothing when the debtor is released, $(1 - p)0$). As long as p perceived by c_x (or p is publicly known) is less then R/L, the court's authority has no implication. Since p is exogenously determined by the court (or the judge), there is nothing to guarantee that $p < R/L$. If $p > R/L$, $pl_x < r_x$ then c_x then switch her choice: she now prefers reorganisation to liquidation. Reorganisation is inefficiently selected. See Figure 5.4 for illustration.

If the court has no right to choose between liquidation and release, the court must adjudicate that the debtor must be liquidated automatically once reorganisation is not approved or there is any impasse on reorganisation process. Thus, the distortion will not occur: c_x will make a correct decision to vote against reorganisation because it is the deployment giving her highest return and economically efficient.

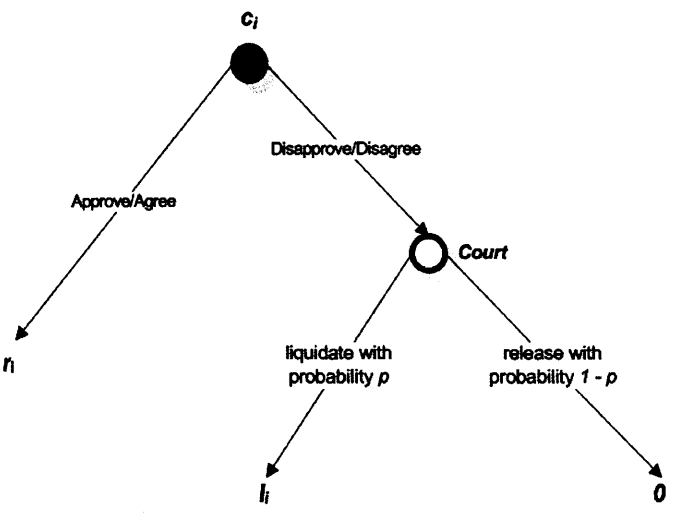

Figure 5.4 *Ci*'s Choices and Returns and Court's Discretionary Authority

From this simple demonstration, just an existence of such court's discretionary power can distort creditor's preference, leaving alone what would happen when such authority has been actually exercised. The court's discretionary power to decide the deployment when creditors cannot reach the consensus does have some impact on creditors' behaviour during voting. It is worth noting that the distortion of creditors' preferences on voting leans towards reorganisation. In other words, we can say that this Law has a bias towards reorganisation and impairs economic efficiency.

One may argue that the discretionary power of the court can be considered as a threat to force creditors and the debtor to reach settlement. The actual authority may not be employed. We would oppose that the threat of liquidation is sufficient to align involved parties' preference and creates no distortion.

Moreover, the discretionary power of the court imposes economic and time costs on both creditors and the debtor as well as the cost incurred to the judicial system and the society as a whole. Note that it is possible for any debtor firm who was released from reorganisation under the court's discretion to apply again for the same process as in Figure 5.5. If the debtor is kept being released from reorganisation time after time, it will end up going in the loop on the right hand side.

One of the most important costs is the value of the debtor wasted as time goes by. If the debtor's asset worth being rescued, reorganisation should be continued with no delay; if the debtor's asset worth being liquidated, liquidation should be commenced with no delay. Without proper asset disposal, the value of debtor's asset deteriorates over time. The chance of being reorganised is, thus, lowered (in case of reorganisation). Liquidated value allocated to creditors is reduced (in case of liquidation). Notwithstanding, the resource consumed in the process of second (or third, forth, fifth, and so forth) reorganisation is inefficiently wasted since there is no concrete criteria when the loop will be terminated; the cost of the repeated judicial process is borne by taxpayers.

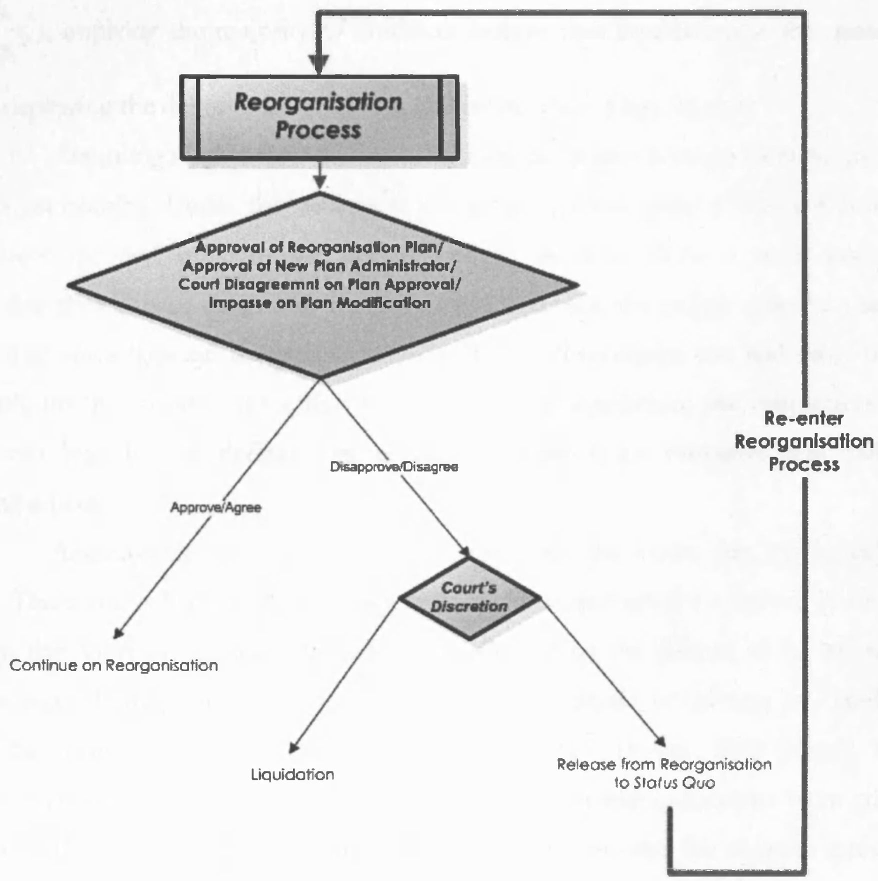

Figure 5.5 Recursive Entry into Reorganisation
when the Debtor is released by Court's Discretion

Risk of Dishonesty

By no mean the court can make a correct decision on the debtor's future since the court is a least-informed party. There is no supporting argument that the court should have such authority to choose. If the court knows what the best deployment for debtor is, why should the court not select the correct deployment right from the beginning? Why the court allows an unnecessary delay and legal costs?

Hypothetical Scenario

Assume that there is no longer a decisive voter but votes 'for' reorganisation are less than $(2/3)N$. It is certain that creditors are all think that $pL > R$ (to be more precise, $p\sum_{i=1}^{N} l_i > \sum_{i=1}^{N} r_i$), implying the majority of creditors believe that liquidation is the most suitable method of deploying the debtor's asset. This is where the court plays its role.

Assuming further the value of release of the debtor back to its ***status quo*** is zero – all creditors get nothing. Under this setting, it is not necessary to assume that the court knows anything about the real value of the debtor but we need to allow a small possibility or probability that the court or those who represents the court (i.e. the judge) to make a mistake by misinterpreting votes 'against' reorganisation as a failure to recognise the real value of debtor. Even though, in this scenario, the efficient deployment is liquidation; the misinterpretation of the court can lead to the decision to release the case from reorganisation rather than commencing liquidation.

Alternatively, we may 'overly assume' that the court (or the judge) can be 'dishonest.' The court, subsequently, can approach creditors and ask for a 'bribe.' If creditors do not comply, the court can impose the threat of adjudicating the debtor to be released from bankruptcy, instead of commencing liquidation. Hence, instead of getting pL, creditors get nothing. This threat is credible because creditors cannot change their minds to adopt reorganisation after all votes were cast. The bribe, b, that the court can extract from creditors: $0 < b < pL$. This threat can be placed at anytime since it does not need the court to actually know anything. If $b \geq pL - R$ (perceived by creditors), reorganisation becomes a better choice; unfortunately, creditors are unable to choose reorganisation because bribery is *ex post* – occurring after the voting is finalised.

What is its consequence? The implication of the possibility of 'dishonest' court or judge is distortion of creditors' preference. Now it is not only a decisive creditor who shifted her preference towards reorganisation but it is the whole bunch of creditors who prefer reorganisation to liquidation in order to avoid paying the court a bribe. Again there is a bias towards reorganisation.

Juristic Method

One may argue for the court to retain its discretionary power for the sake of legal procedure. Since any law cannot be written to cover all contingencies possible, juristic method is required to allow the court adjudicating the case. Thus, the law should plug probable loopholes as many as possible. Allowing the court to use the discretion is one way to do so.

Our counter-argument is the threat of liquidation is superior to the discretion. The discretion is given without guidelines or rules governing the court how to reach the decision whether to liquidate or to release from reorganisation. Lack of proper and concrete guideline creates uncertainty and adversely affects decision making of creditors as well as make bankruptcy procedure prone to errors.

Automatic liquidation is more efficient, economical, and cost-saving. There are only two 'official' deployments (apart from private workout) available for companies in distress: liquidation and reorganisation. Releasing the ailing firm back to *status quo* imposes only the cost on the society since this firm will later either end up with either liquidation or reorganisation – one way or another. The difference is only the time wasted and the deterioration of debtor's assets.

Apart from the argument concerning the juristic method, Wisitsora-at (2004) states that the Law should allow creditors who did not apply for repayment under bankruptcy to file their claims since the provision of Section 90/61 does not allow those creditors to receive repayment if they failed to apply during the bankruptcy process. The only way to do so is to release the debtor firm out of bankruptcy process and let those creditors to file their claims. We would argue that allowing those creditors to do so is *ex ante* inefficient. Because bankruptcy is a collective process, all creditors must be aware of their debtor's status and when the bankruptcy process is commenced, they should react and defend their claims promptly. Failing to act by applying for repayment under bankruptcy means those creditors are inactive on i) monitoring/observing their debtor and ii) defending their own claims. Subsequently, these creditors should not be able to claim anything; they should be responsible for any cost created by themselves (not apply for repayment) rather than enjoying the benefit of their claims reinstated by the release at others' expenses. This logic backfires on itself, when every creditor knows that even though they did not apply for repayment in bankruptcy, they still have the right to file their claims if the debtor is released, hence, they will be less participation in the bankruptcy process which requires collective action. Less participation in the bankruptcy process means the outcome of the process will be inefficient – cannot reflect the real valuation of all claimants, therefore, it is likely to be halted. Consequently, the debtor is likely to be released and then goes back into the process again, as in Figure 5.5.

Discretionary power in this Act creates wrong incentive for creditors. Such discretion influences creditors' preference between liquidation and reorganisation by distorting the preference towards reorganisation. Therefore, the Law is said to be pro-reorganisation and it leads to economic inefficiency by not allowing creditors to vote honestly. Its implication does not end here. This bias also causes *ex ante* preference to be pro-reorganisation: creditors prefer reorganisation to liquidation; hence they will file for reorganisation.

An option of having a release from reorganisation has no economic rationale. Using formal bankruptcy, there are two deployment methods: liquidation and reorganisation. If one choice is unacceptable, another choice must be automatically selected. The third undefined choice (release back to debtor's *status quo*) is irrelevant. If creditors and the debtor wants to privately settle outside the court they should have done it earlier or even agree on a co-operative reorganisation plan under court's supervision. Moreover, the threat of liquidation when considering reorganisation is efficient and does not distort creditors' preference. The threat of having court's discretion to choose between liquidation and release generates ambiguity and distortion before and after insolvency is apparent.

5.4.4. Absence of Managerial Displacement and Disqualification

Managerial displacement implies a debtor's management being replaced by a new management during reorganisation, i.e. no existing management can be a planner and a plan administrator unless approved by creditors. Managerial disqualification implies punishment of a debtor's management in and after reorganisation due to its incompetence in managing the debtor firm and caused the firm insolvency. Disqualification prohibits management at fault to take up any managerial position elsewhere to prevent them causing insolvency of other companies.

Displacement

Unlike other bankruptcy procedures, the Act does not have the explicitly clause to replace or change the incumbent management of the troubled company. It is plausible that the company has ended up insolvent because inefficiency of its management. Reorganisation under this Act automatically presumes that every ailing firm is efficient but bad luck, so it must be revived. Meanwhile it discards the possibility of an economically viable firm with bad management. This gives the incentive for the debtor's incumbent management, as well as shareholders, to be overly complacent because the threat of being dismissed from the control over firm assets is no longer exists. Reorganisation as implied by the Act is the company should be survived with its directors or management intact.

Although the replacement during reorganisation is possible, it is rather optional than compulsory. The correct presumption should be 'there is something wrong with the management and it must be replaced; otherwise, the company would not be in trouble.' The compulsory managerial replacement in reorganisation would act as the threat on the incumbent management to i) *ex ante* improve its competence and efficiency and ii) *ex post* try to achieve the solution with its creditors outside bankruptcy, whenever applicable, and not use bankruptcy strategically (e.g. promptly applying for reorganisation causing an influx of cases). The efficient management would be reinstated to control the company either as the planner or plan administrator by creditors, or being re-elected after the company has re-emerged from reorganisation.

Disqualification

Having the problem with screening (since there is no displacement), we could not presume that all firms successfully emerged from reorganisation are efficient but unfortunate and all firms that failed from reorganisation are inefficient. There should be a supportive legal framework to detect all firms' management in bankruptcy. The resume of the debtor's management power after emerging from reorganisation means no legal action has been imposed on the debtor and his incumbent management. Only penalties imposed on debtor's management or director are fines and imprisonment, not disqualification.

The disqualification is important especially in the economy that has a weak corporate control. Chapter 11 of the US Bankruptcy Code provides no legal action against inefficient conducts of debtor and its management. However, the threat from the market for corporate control in the United States is very harsh and competitive (e.g., hostile take-over) which act as the substitute for such legal provision. In Thailand, the market for corporate control is virtually not existed (Alba, Claessens, and Djankov, 1998). The absence of legal action against the inefficient debtor and management essentially increases system deficiency. Clauses provided in the Act are meagre and deal primarily with the progress of reorganisation not the previous performance of debtor and its management.

The UK Insolvency Act 1986 has the related act to deal directly with inefficient conducts made by debtor's directors, the Company Directors Disqualification Act 1986. Company Director Disqualification Act 1986 imposes civil and criminal charges to the misbehaving management as well as prevents inefficient managers to take any position in any company. The market for corporate control in the UK is less severe than in the US.

5.5. Concluding Remarks

Amending the Bankruptcy Act to include reorganisation definitely does improve *ex post* efficiency but, simultaneously, undermine *ex ante* efficiency of liquidation. Liquidation-only bankruptcy is suboptimal and so does reorganisation-only bankruptcy. Having both liquidation and reorganisation cannot be presumed to be optimal. Optimality is achieved through a correct balance between *ex ante* and *ex post* efficiency by properly designing the legislation. The Thai Bankruptcy Act is not optimal mainly because of underlying misunderstanding about the role of bankruptcy. It fails to recognise various economic properties of bankruptcy. Even though the *ex post* efficiency is improved as the possibility of reorganisation is included, biases, distortions of incentive, *ex ante* inefficiency, and *ex post* redistribution problem may far outweigh such benefits.

The most dangerous implication is a *Type II* error, where the inefficient firm is reorganised and survived. A widely-accepted misconception is that the firm must be rehabilitated to keep it alive and its employees employed. Many scholars and public domains share the wrong impression that this error is beneficial including Asaporn (1998), Wisitsora-At (1999, 2004), and even the Committee for Examining the Economic-related Legislation of the Senate. In a long term, there would be a significant social cost of having inefficient firms operating and wasting resources.

With this misleading belief, it leads to the structural weaknesses we have found particularly embedded biases and distortions. In general, the Act favours debtor, its incumbent management, and secured creditors at the expense of unsecured creditors and economic efficiency. These weaknesses impairs *ex ante* efficiency since the error of *Type II* poses further moral hazard problem by allowing inefficient firms to exist and discourage creditors from monitoring their debtors. Therefore, the debtor is more risk taking *ex post* and more complacent with its deficiency *ex ante*. Higher risk taking behaviour and the laxity of inefficiency plus the lack of creditors' monitoring increase the overall probability of insolvency for the whole economy. Inevitably, the bankruptcy system would cause more insolvency by itself. Instead of stopping the self-propagating recession caused by mounting bankruptcy (Bernanke, 1981), a bankruptcy system with *Type II* error thrusts the economy into the deep recession quicker. It is essentially a trade-off between short run employment preservation and recession avoidance and long run economic efficiency of companies. The Act is apparently prefers the former to the latter. Another negative impact is on the effectiveness and efficiency of trusts and connections since debtors are becoming more opportunistic. This inefficiency undermines the network of connections which is essential to the Thai economy and destroys trusts between businesspersons built on such connection making business agreements and co-operation far-fetched in the longer run.

Chapter 6
A Behavioural Investigation of Thai Firms in Financial Distress

The chapter analyses the behavioural aspect of Thai firms on borrowing and, later, when they are facing financial distress. Materials from Chapter 2 to Chapter 5 have been incorporated into the analysis in this Chapter. The Chapter begins with a firm-level discussion on the choice of financing and the rationale of debt financing in the context of the Thai economy. Section 6.2 investigates the nature of the borrowing relationship and its key players. Financial distress is introduced in Section 6.3 and various solutions, including bankruptcy, are analysed. In this Section, we show there is an economic rational for a creditor to bear some loss from insolvency and propose an alternative method for bankruptcy procedure. Section 6.4 discusses the problem of claim valuation. An evaluation of the bankruptcy process is given in Section 6.5. The problem of the integrity of the procedure and external influence is presented in Section 6.6. Section 6.7 examines the need of tailor-made bankruptcy and the denial of universal bankruptcy. Section 6.8 concludes the Chapter.

6.1. The Intra-Firm Relationship

There have numerous attempts trying to explain the reason of firms using equity and debt financing at the same time. Modigliani and Miller (1958) show the irrelevance of the financing method. Many scholars treat the use of the debt instrument as a tool to control managerial discretion where the separation between ownership and control is apparent (Jensen and Meckling, 1976). Different methods of finance cost firms differently. In other words, they have different impacts on a firm's value. Debt financing might benefit the equity holder at the expense of creditor due to the moral hazard of opportunistic behaviour by management. It also serves as a commitment tool for management to align the interest of managers with that of the shareholder. In constrast, the concentration of debt financing, i.e. a single or a small number of creditors with close monitoring, could result in the management effort serving the creditor at the shareholders' expenses (Armour and Cheffins, 2002).

The pattern of business financing in Thailand is unique and interesting. At the very early stage – during the setup, a typical company is either financed by the sole equity of its owner or by a mixture of the owner's wealth and debt. When the company is mature, most of the finance is in the form of debt, particularly from commercial banks[1] (Alba, Claessens, and Djankov, 1998; La Porta *et al*, 1998; Pomerleano, 1998). Larger companies also use borrowing extensively but extend their borrowing to a myriad of banks including off-shore lenders via banks.[2] Only a handful of big corporations involve themselves in fund-raising through the stock market where they become public companies. It is worth noting that many listed companies in Thailand have their original owner (founder) and/or the family holding a majority of shares to retain control rights[3] (Alba, Clasessens, and Djankov, 1998; La Porta *et al*, 1998; Pomerleano, 1998). The management predominantly consists of family members or is chaired by the founder. A pattern of shareholding in some Thai public companies may mislead the public's perception that ownership is diversified because of, as discussed earlier in Chapter 3, inter-marriage linkages and the share cross-holding under personal connections allow the family to retain the control of its businesses while having diversified shareholders.

Therefore, in contrast with Anglo-American corporations, the conflict of interest between owners and managers does not feature in Thai companies, even for the publicly held ones. Instead, in public companies, it is possible to devise conflict between majority and minority shareholders. Majority shareholders, despite owning a significant proportion of a firm's assets, could manage it in the way they want at the expense of its minority shareholders because it is unlikely for minority shareholders to speakout. This situation hinders fund raising through the stock market, especially if the potential investors are aware of such majority shareholders' dominance (Ruaengsakul, 2002); this leads to the underdevelopment of the stock market.

Corporate financing is then limited to the re-investment of the firm's retained earnings and to borrowing. Consequently, debt financing is not a matter of choice because the source of funding is limited. Any company which wants to expand beyond its available retained earnings should be financed by borrowing. Therefore, debt financing is a predominant source of funding for most companies in Thailand regardless of size. Only when the firm can generate sufficiently high retained earnings, it could be less dependent on debt. It can also be deduced that borrowing is not used for corporate governing purposes.

[1] Pomerleano (1998) shows Thailand's leverage level (debt/equity ratio) from 1992 to 1996 to range between 71–155 percent. He also shows that the percentage of investment that is funded by debt is 78 percent (average between 1993 and 1996).
[2] Off-shore borrowing is much easier, particularly after the introduction of the Bangkok International Banking facility (BIBF) in 1993.
[3] La Porta *et al* (1998) report the average percentage of common shares owned by the three largest shareholders in the ten largest non-financial firms (not corrected for shareholder affiliation and cross-shareholding) of Thailand to be 44 percent and 47 percent (for 10 largest firms with no public ownership).

Modern Thai firms are the product of a distinctive development. Most of their entrepreneurs are overseas Chinese or Sino-Thais. Some of the firms were owned by members of the Royal family or the government, but soon they came to be managed by overseas Chinese or Sino-Thais. In fact, the system of governance is quite similar to the Chinese system but it has been developed to suit the Thai economy.

Chinese business practice is based on the system of *guangxi* (Hill, 2003) whereby business units are formed around the family with the same surname – a clan – and intermarriage with other families, i.e., "family is business; business is family." No explicit distinction is drawn. Furthermore, the relationship is not based solely on heredity but also long-term connections with others. The system works well in terms of eliminating various transaction costs which arise while expanding the business. Asymmetric information can be mitigated as well as the incentive incompatibility because every member of the clan wants to do the best for their family. More importantly, the negotiation between different company constituents or stakeholders is kept to a minimum because the system internalises their diverse goals (Kelsey and Milne, 2003).

Within the large extended family, the system pulls together the members' wealth and makes it available to everyone in the clan. Such a linkage became an excellent source of funding – in term of equity and debt. It was common to observe the establishment of company financed by the pooling of funds, both in the form of equity and debt, from members of the clan. More members in the clan the greater the opportunity for them to finance new or expand existing enterprises Apart from there being a pool of funds, risk sharing is possible when a member faces the difficulty; the rest will assist. In other words, the *guangxi* system has the character of a bank, insurance, and business conglomerate built into the family. This is unique to Thailand, as well as to other countries with high dominance of expatriate Chinese.

As overseas Chinese and Sino-Thai businesses, at least in the past, were severely and adversely restricted by the Thai government, especially their status was not secured – particularly in the enforcement of property rights (La Porta *et al*, 1997, 1998; see Chapter 3), they developed close and extensive ties among themselves and their extended families. These connections are very intense and long lasting. This evolution could be regarded as a different response to the same problem as the evolution of M-form corporations (Williamson, 1985).

With this company establishment pattern, nevertheless, the financing could not extend further than the total wealth of members within the clan or the associated clans. To a certain extent, some entrepreneurs from different clans were associating together and investing in the same venture. However, relationships within the same clan are much stronger, even nowadays, and prevent widespread partnerships outside the clan. Equity financing from outside investors is very limited.[4] In the next section, we compare this circumstance with firms which are subsidiaries of the bank – a core business.

6.2. Inter-Firm Relationships on Borrowing

6.2.1. The Firm as a Borrower/Debtor

Thai companies are likely to use debt to finance their businesses. It is not because of corporate control or agency problems as described in contemporary literature but because of the institutional environment they are operating in. Borrowing, thus, becomes a financial facility and a primary source of corporate funding.

With highly concentrated ownership, borrowing largely reflects the company's financial need for external funding and virtually imposes no cost on shareholders. This is opposite to the situation where ownership and control are separated and the suboptimal debt financing would impose unnecessary cost on shareholders. However, the problem of *moral hazard* is expected to become more prominent as majority shareholders, once they obtain a loan, can use the loan for their own specific purposes without being examined by other shareholders. Risk bearers in these circumstances are creditors and, if any, minority shareholders. Minority shareholders could enjoy the buoyant return of the majority shareholders' investment, while creditors would earn no more than the outstanding loan plus agreed interest. If the majority shareholders' investment fails and the firm cannot fulfil its obligations, again, shareholders – both majority and minority – must forfeit their ownership and earn nothing. Meanwhile, creditors are likely to lose their loan and interest and be unable to recoup the full amount. The amount of creditor loss depends on how devastating the effect of the majority shareholders' venture is. Inefficient risk-taking on a loan by the firm's majority shareholders could deflate the value of the firm's assets (Armour and Cheffins, 2002).

In addition, an asset specificity of company investment influences financing methods. High asset specificity businesses require equity financing due to a low realisation value of

[4] Considering from the perspective of risk, equity financing bears all the risk in the venture (but within the limit of registered invested fund due to the limited liability). It is, therefore, riskier than lending the money out where the priority for repayment is highest.

invested assets outside the firm. By analogy, low asset specificity businesses are more likely to be financed by debt (Williamson, 1985; Hart, 1995).

Thai firms are relying more on debt as a source of financing than on equity because the concentration of ownership prevents fund raising from other resources examined previously. The reliance on borrowing in association with ownership concentration may cause the *moral hazard* problem. In other words, the major shareholders are more likely to behave opportunistically on debt financing. Thus, creditors and minor shareholders are the potential risk bearers.

Given the situation above, potential risk bearers, *a priori*, envisage their methods to minimise their risk. Minor shareholders, who are small investors, are less likely to invest in the stock market and, hence, considerably reduce the possibility for the company of fund raising through equity issuance. This propagates the tight equity-financing instance considered earlier. Meanwhile, creditors are, at least theoretically, more concerned about granting a loan and/or rationing it (Stiglitz and Weiss, 1981). Creditors devise various instruments to assess the borrowers' potential – whether the loan will be repaid. It is worth noting that the price mechanism may malfunction here. As described by Stiglitz and Weiss (1981), the interest rate, or the price of money, can induce the pooling equilibrium of high- and low-risk borrowers when it is sufficiently high. This would expose lenders to higher overall risk. Therefore, the credit or the loan might be rationed or lenders might use alternative assessment techniques to estimate their potential risk.

6.2.2. The Lender/Creditor

As debt financing is dominant, the role of those who are lending their money out is highly significant. Creditors are also increasingly at risk from a reliance on debt financing. There are three major types of potential lenders who can be approached, namely: personal, institutional, and trade lenders. Personal lenders are the very basic type of lender, though that may be very essential because of closely related family or personal ties (see Chapter 3); institutional lenders, i.e. banks or finance companies, contribute the largest proportion of loan to business in terms of value but are few in number; and trade lenders are significant in facilitating business transaction, i.e. credit on purchase, but do are not engaging in lending on purpose to earn interests.

Personal Lending

Personal lenders are fundamental to the Thai economy. Although Thais were not originally very keen on borrowing, the increasing role of overseas Chinese and Sino-Thai business persons in local businesses gave rise to these borrowing and lending activities. Lending activity in closely related business persons was easier than the usual 'arm-length' type seen in the West. Transaction costs were comparatively low because people know each other quite well within their limited circle. This rationale also shaped the nature of the banking industry in Thailand.

Under the personal lending regime, borrowing and lending are conducted through various personal linkages: personal preferences, family, friend, as well as through interdependent social interaction between the social classes – the *patron-client* relationship, which is particularly unique to the Thai economy (see Chapter 2 and 3).[5] To lend or not to lend does not primarily depend on the proper assessment of risk, cash flow, or project evaluation. Asking for such proper formality would be considered rude and disrespectful. Calling for collateral is also an unusual practice. Potential borrowers should, in return, express a reciprocal consideration by pre-appraising their projects themselves before asking for a loan.

From the transaction cost perspective, it is possible to regard personal contacts and links as tools to acquire information about lenders which supplants the conventional Western assessment and the role of collateral.[6] It is comparatively more efficient due to an insufficient protection of property rights (La Porta *et al*, 1998), particularly in the past where the status of Sino-Thai entrepreneurs was highly uncertain (see Chapter 3).

Financial Institutions/Banks

The evolution of financial institutions in Thailand is very interesting and commands a considerable amount of research (Akira, 1996; Chulapongsathorn, 2000; Bualek, 2002). It is

[5] In Chulapongsathorn (2000, p. 177), such complex personal linkages are referred to in a memoir of one Thai businessman who wanted to borrow money from the bank. It says:

> "… I rushed to meet Khun Tawee Tawedhikul [the bank manager] whom I never meet before. I received a very warm welcome from him. He did show me the long list of debtors and said 'Please look at this, our MPs and politicians are borrowing from me, all of them without collateral, there are almost 100 people now. I don't know how to say NO, we are all friends.' He continued 'I like the way you approach me, you are brave, and I want to help…'"

It is apparent here that the myriad of personal relationship mentioned above affects the decision of the banker-in-charge on lending.

[6] For example, assume the borrower is a high ranking military person. He may hand over the collateral to the lender when the borrowing was made. With the power and authority at his exploitation, however, he could reclaim his collateral at anytime.

worth noting that development of the financial institutions is closely related with the role of Sino-Thai business groups investigated in Chapter 3. These financial institutions, especially the banks, have arisen from the personal relationships within the limited business circle. The expansion, also, is closely linked with leading political figures. The banking industry can be regarded as a larger reflection of the underlying business regime in Thailand.

The banking industry, despite being initiated by the government, is expanding from the limited circle of Sino-Thai entrepreneurs with the reinforcement of the government. Its development may be regarded as a product of an interaction of complex relationships within Thai society, from close relationships within the clan to intermarriage relationships between clans, to business relationships within the circle of Sino-Thai business persons, and to relationships with political or government figures under the *patron-client* relationship (Akira, 1996; Chulapongsathorn, 2000).

Owning a bank is a key to business success. All Thai business conglomerates own at least one commercial bank or some kind of financial institution (insurance company, financial company, or security company) ('Yibpan,' 2002a, 2002b). One crucial benefit of having a bank is to raise funds from external sources – i.e. ordinary depositors – and then invest them in their own businesses. Personal relationships, particularly within clans and from intermarriage, are less prone to the *moral hazard* problem because the transaction costs are extremely low and well internalised (Williamson, 1975, 1985; Hart, 1995). In addition, the asymmetric information and incentive problem are less apparent (Acs and Gerlowski, 1996).

Ordinary lending to other companies is also relationship-based but is more *patron-client* rather than family oriented. Nevertheless, it is more prone to *moral hazard* problems because debtors may resort to strategic defaults unless, to deter opportunistic behaviours, their relationship is based on:

- high asset specificity between firms;
- high inter-dependence between firms (Williamson, 1985; Hart 1995);
- long standing relationship with trust, established reputation, and mutual personal benefits.

Patron-client lending-borrowings by 'influential' persons bear the highest risk of default in which the borrowers may abuse their legal rights and power.

With a strong cronyism, bank loans may have an extraordinary high cost and risk for the banks themselves because of a lack of proper risk assessment and management. Banks are often forced to provide loans without proper collateral or risk assessment, either from the personal relationship or the *patron-client* relationship.

Hence, a mechanism was devised to confront this extra uncertainty. In exchange for unsecured and easily approved loans, banks are pressurising politicians or governmental figures (who receive such loans) to pass laws and regulations which favour them.[7] The process is dynamic and recursive (Figure 6.1.). It results in many favourable institutional and legal environments for the banks. Such an environment absorbs excessive risk for the banks and dissipates it throughout the economy, namely to the taxpayers. Banks, thus, reinforce their power. There is no doubt why all the principal entrepreneurial clans in Thailand own banks (Akira, 1996).

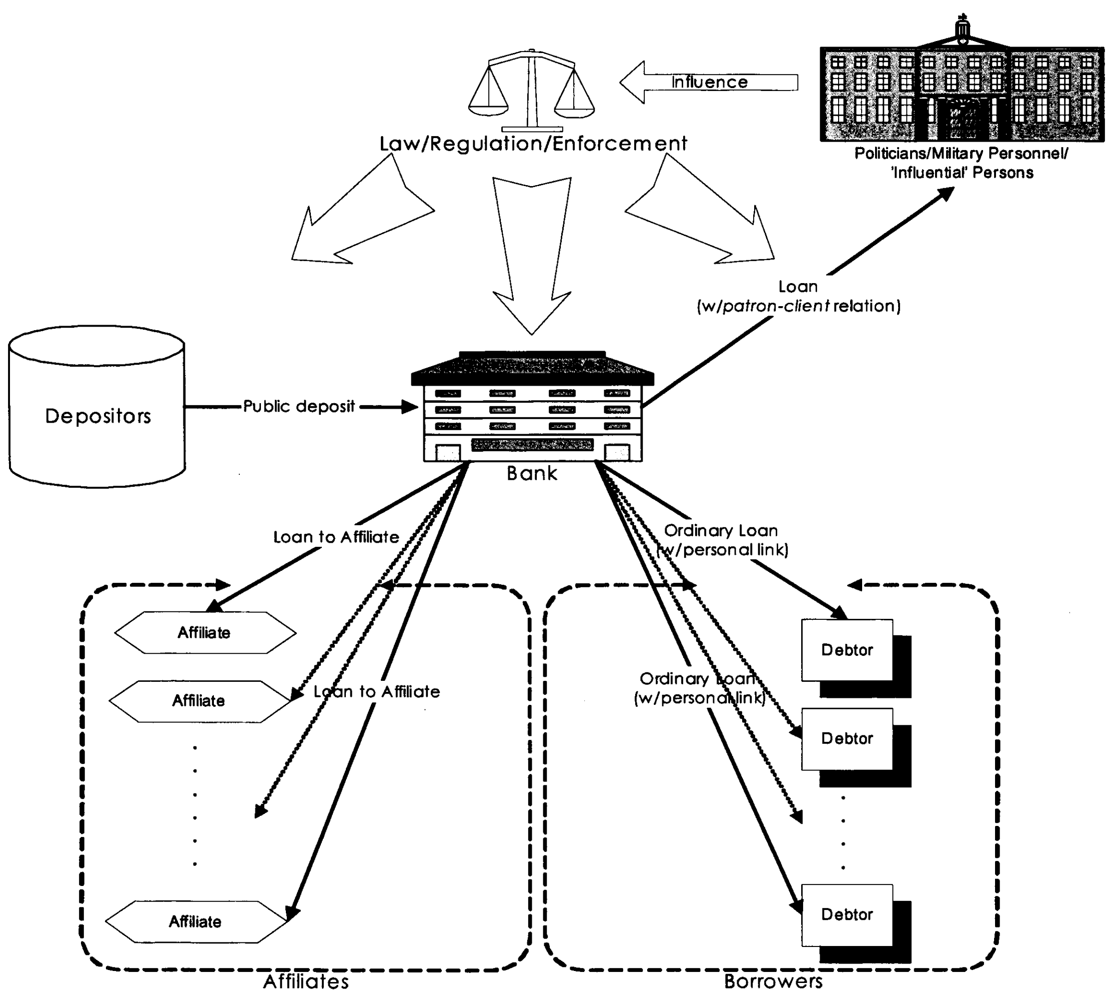

Figure 6.1. Schematic Representation of Business Relationships in the Thai Economy With a Bank at the Core

[7] Chulapongsathorn (2000) summarises the range of policies employed to support the banking industry. Limitation on the number of Thai banks and the prohibition of foreign banks on branch opening are the most noteworthy regulations. The government also constantly assist the Industry on the *ad hoc* basis including many supporting funds during hardtimes and takeovers during downturns and handing businesses back to the original owner when it has been rescued.

It is said that the Industry is well supported, even pampered, by the whole country. Chulapongsathorn (2000) produced an extensive chronicle of how the Industry is saved at the expenses of Thai citizen. This confirms how effective a 'less-than-arm's-length' relationship is. Moreover, such practices then become the protection against competition and risk. Consequently, bank loans are relatively cheaper (easier) for potential borrowers with connections or powers.

It is arguable that the evolution of this institutional arrangement serves these purposes:

i) remedy the insufficient property right protection;

ii) reduce transaction costs in

-corporate governance: incentive problem and control

-risk assessment of potential borrowers;

iii) overcome a lack of financial services and the limited fund for business expansion and insurance;

iv) overcome a lack of the government protection (or act as a tool to reduce competition).

As a result, banks presumably perceive lower-than-usual risks and higher-than-usual returns. As the economy expands and the size of potential borrowers increases, so the banks are more likely, *ex ante*, to lend to unscrupulous borrowers, compared to the conventional assessment. They also *ex post* have less need to monitor their debtors.

Although their perceived risk is reduced, it is the banks' task to prevent excessive risk and evaluate the possibility of default by their debtors without sacrificing returns. To adjust their lending portfolio, instead of explicitly screening potential borrowers, the banks usually invest in their own subsidiaries. Akira (1996) and Chulapongsathorn (2000) extensively describe how their businesses expand with the bank as the core business. It is arguable that banks need to readjust their portfolios without taking additional risks of default and without incurring information costs on screening because a considerable proportion of loanable funds has been lent to debtors who have personal connections with them. With a full control over their businesses' management, they can mitigate the moral hazard problem as well as reduce the plausible incentive problem and still yield relatively higher and more stable return than by lending to an unknown. At the same time, the banks have an access to the large pool of available fund (bank deposits). Without a bank, business clans never have the access to such funds. Thus, funds can be used to finance new business opportunities at a relatively low cost because there is no incentive problem, no collateral required, and the interest rate can be charged at a 'lower-than-the-market' rate.

This is evident by the fact that there is a huge disparity between business empires built around these banks and ordinary *guangxi* derived companies. The implicit protection for the banking industry creates a considerable economic rent that could be shared between bank entrepreneurs and relevant government officials at the expense of taxpayers. The rent is fuelling and strengthening the bond between these two, thus reinforcing the *patron-client* relationship. A similar situation applies to other types of financial institution. Most of these, moreover, are affiliates of the main bank.

With distorted incentives, inefficiency makes financial institutions are less keen on monitoring their debtors. At the same time, considerable amounts are loaned to un-assessed debtors with personal connections and some proportion of fund are even invested in their affiliates. The loan, then, is more limited for other potential borrower pushes up interest rates. High interest rate induces more risk-taking borrowers and credit is tightened or rationed. This is recursive and strengthens the *patron-client* relationship – whoever wants to get a loan must goes through this relationship.

Trade Creditors

This group of lenders are not intentionally lending money to earn interest but implicitly provide the credit (buy now, pay later) to facilitate trade between themselves and their customers. The significance of trade creditors increases when there is a close relationship between the firms; for instance, due to asset specificity or to downstream/upstream relationships within the same industry, or to more frequent transactions. Trade credit is crucial for the operation of debtor firms (Biais and Gollier, 1997).

The decision to provide trade credit is somehow different from ordinary lending. With respect to information, it is easier for the credit providers (sellers) to assess the ability of buyers (in other words, the possibility of non-payment) because their relationship is relatively continuous and repetitive. If they are dependent (this implies the replacement of trade partners is costly), both problems of *moral hazard* and *information asymmetry* are decreased. Because of this interdependence, trade creditors could be more effective in monitoring their customers than banks or financial institutions. Biais and Gollier (1997) show that the firms that cannot obtain loans from the banks are seeking their finance from trade suppliers instead. The inference could be drawn here that trade creditors are a substitute source of fund where loans from financial institutions are not available due to asymmetric information, moral hazard, and/or asset specificity which impose high monitoring cost and high uncertainty. Notwithstanding, Biais and Gollier (1997) prove that trade credit can be used as a verifiable signal for the bank in credit assessment. A bank may verify the trade credit of a prospective borrower in order to decide whether to lend the money, or, in other word, he is a 'good' or 'bad' debtor.

However, lenders (sellers) cannot diversify their risk as much as bank/financial institutions or 'professional' lenders as their trade is limited to the same industry or related industries. Diversification across industries is more difficult.[8] If the industry is in a downturn, the 'domino' effect may affect the whole chain of companies if one firm defaults on its suppliers. This has a knock-on effect to other suppliers upstream especially when they are highly interdependent and the industry could soon be in distress.

One of the most intriguing differences between trade creditors and financial institutions is collateral. Financial institutions can demand appropriate collateral before releasing the loan. In contrast, trade creditors cannot call for collateral upon when customers purchase. They can just decide whether or not to grant credit, for how much, and for how long. The most they can do in the event of debtor default is to seize back the unpaid items. In other words, trade creditors have unsecured claims against their customers. Although collateral could act as a tool for commitment, or for extracting information from the borrower, or increasing the possibility for the bank to provide loans, the priority of security in the event of default may make trade creditors worse-off. This tightens available trade credit, i.e., suppliers restrict trade credit making it more difficult for the firm to buy. There is the trade-off between low transaction costs and a low priority in the event of default that trade creditors face. Financial institutions, meanwhile, face the trade-off between relatively higher transaction costs and a higher priority in default.

Another point to be made is trade creditors are not providing credit to earn interests. They have their own businesses to run and providing credit to their customers is to facilitate trades between them. Hence, the availability of trade credit is somewhat limited. The amount could be incomparable with financial institutions. Although it is legally possible for trade creditors to use factoring in order to reduce customers' non-payment risk,[9] it is not common business practice in Thailand.

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[8] There are some kinds of company which could easily diversify across industries. For example, office equipment suppliers – paper, pen, pencils, clips, files, etc. – where whereby most of companies in existence have to be their customers.

[9] CCC, Book 2, Volume 2, Part 2, Section 226-232 and Volume 4, Section 303-313.

Despite the fact that this group of creditors is not the 'mainstream' financier, its role is essential especially for companies with high interdependence. Its significance is more apparent in insolvency and reorganisation. It has also the supportive role in signalling for financial institutions about the type of borrowers.

6.2.3. Characteristics of Relationships under Thai Institutional Environment

The core of Thai business practice is personal connections and the *patron-client* relationship. In the light of Western culture, these relationships could be regarded as cronyism or 'less-than-arm's-length' relations that are unique to the Eastern world. Still, the Thai way of doing business is different from that in China, Japan, or Korea. It is worth noting that such practices are not the results of corruption or bad intentions. They are the products of a long, but different, development under a different business and institutional environment which incorporates Thai cultures.

A fundamental difference from the rest of the World is the poor protection of property rights. A concept of property rights was not relevant at the time when land and other natural resources were abundant but manpower was scarce. The property rights at the time were concerned with control over manpower or labour (see Chapter 2 and 3). Hence, the underlying basis for the society to survive was to hold manpower together. In contrast with the Western hemisphere where resources were scarce and competition high, the basis for the society evolved around property.

Having an extended family, treating others as family members, respecting higher rank people, and helping inferiors are at the very core of Thai cultures. It was designed to keep people together. Classes in the Thai society also promote a hierarchy of labour control. It was not as severe as slavery or feudalism; the higher class helps the lower ones (giving them *patronage*) and the inferior class respects and supports the superior one; this is at the root of the *patron-client* relationship. This is why business practices in Thailand are people-based rather than property-based. Therefore, two hierarchical structures exist: one is for social interaction; the other is for the business. Conflicts are unavoidable and the two structures are required to blend together; hence, the multidimensional relationship. Normal business controls cannot be efficiently achieved if they contradict the social norms, i.e., if the CEO is younger than the manager, she cannot direct him in the way she would if he were younger than or of the same age as her, she has to be more composed. Sometimes, this causes the promotion ladder in the company to be based on seniority than capability; the merit-based promotion is severely compromised.

Lending granted on the basis of a personal relationship is not uncommon. Disagreement within the lending firm (bank, financial institutions, or trade partners) on the decision to lend to a particular applicant could be easily overruled by someone 'influential' enough. 'Influential' in the internal sense means high ranking managerial positions, senior staff, or any staff who have a relationship with the owner or owners' family. Such practice would undermine the collective objective of the firm. Lending firms could engage in wealth-reducing lending.

It is worth noting another difference in corporate governance. In the Anglo-American corporate world, conflict between ownership and control is the main concern where the striving for personal promotion and perquisite could prove harmful to the shareholders' interests. Private benefits in this case are of pecuniary type like perks or exquisite commodities. The corporate governance problem in Thai companies is the conflict between the private benefit of influential stakeholders and the collective benefit of the company as a whole. The private benefits are usually non-pecuniary. They are in the form of social acceptance, future reciprocal treatment, ease of business dealing, or the so-called *boonkhun*.[10] Such benefits could be further transformed into the pecuniary ones. These benefits could be valuable to the firm or could be accrued as a private benefit. It is somehow based on reputation between parties.

Regarding the lending-borrowing relation, this practice is sufficiently efficient in overcoming *ex ante* information obstacles and *ex post* commitment. It is somehow based on reputation and trust between engaging parties. The lender could lend on the personal basis to gain *boonkhun*. The borrower, when get the loan with ease, shows his gratitude or *kraengjai* by not using the fund improvidently. The transaction is reciprocal and supporting each other.

As businesses expand, companies become bigger and employ more non-family-related personnel. Although family members still retain key positions in and control over the company, many managerial posts are taken by non-family personnel. Gaining *boonkhun* is now more frequently exploited to accrue private benefits. Family members may still use *boonkhun* for their

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[10] The concept of *boonkhun* may not be evident in other cultures. It is a kind of reciprocal treatment bonded with the gentlemen's agreement. When you help someone to get a loan easily from your company or bank without demanding anything, he will appreciate your help and determine to help you in return if he has a chance. This means you have *boonkhun* with him. No commitment is required. He may not help you, even though you have asked. However, the social sanction on discarding *boonkhun* is quite severe. Another concept arises here; *kraeng jai* is the commitment to repay *boonkhun* as well as not to disturb or ask for help from others without due course unless the request is made in a composed, reserved manner.

company's benefit; but non-family personnel may lend money to gain ***boonkhun*** for their own personal benefit at the expense of the company. Even though the incentive scheme is used to align non-family personnel's objective with the company's one, some family members do exploit their power to lend and gain ***boonkhun*** for their private benefits without listening to others. Splits in the lending decision, subsequently, increase the cost on monitoring debtors because some loans may have been granted to 'unscrupulous' borrowers. Moreover, the monitoring effort is undermined. Additionally, the rapid economic expansion during the late 1980s to the early 1990s had a huge impact on the economy and led most Thai people to believe that it would be long lasting. Over-optimism shifted belief and made risky projects more attractive and people less provident. The system based on reciprocal trust is thus undermined.

Consequently, debtors are aware of this reduction in monitoring. They may even realise it before the loan is granted. Their risk preference is shifted toward higher risk accordingly and could encourage them to invest the obtained loan in riskier venture. In other word they are less *kraengjai*. This also attracts more risk-taking potential borrowers too to apply for a loan. Corporate expansion beyond family linkage reduces the efficiency of this system. Trust and honour from close connections, despite enforcing the commitment of both sides in the absence of opportunistic behaviour, also act as a deterrent to creditors' vigilance and simultaneously increase the possibility of moral hazards by the debtor. The overall possibility of default is eventually increased.

6.2.4. The Strategic Use of Debt

There is evidence that the owner of the debtor company could use the debt strategically to dilute the influence of other creditors – particularly in bankruptcy. The only reason for this is the attempt to take advantage of other creditors and protect this company. Figure 6.2 summarises the schematic representation of how this debt could be used strategically. Debtor D borrows B_1 from the bank. At the same time, the owner of D sets up another company called OC. OC also borrows from the bank B for B_2. Then OC adds the infinitesimal amount of ε from another source (another bank or the owner's personal wealth) into B_2 and lend $B_2 + \varepsilon$ to D. This is to cover up the trace of the total money from the bank to D. The bank has the claim of B_1 on D and the company OC has the claim of $B_2 + \varepsilon$ on D.

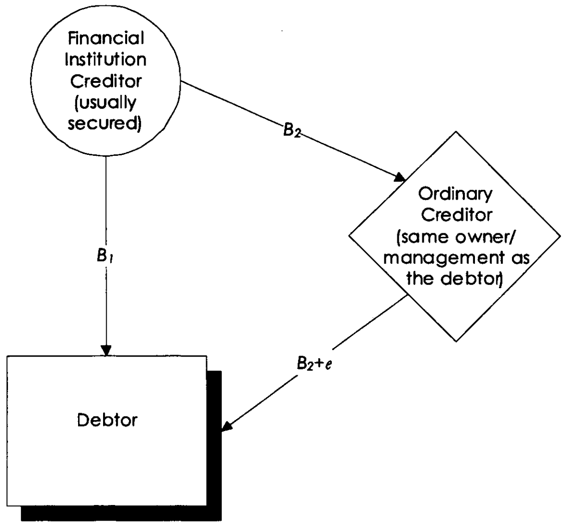

Figure 6.2. Strategic Use of Debt

This would present no problem if *D* were solvent. In the event of bankruptcy, if the bank and *OC* have been classified in different classes, *OC* could veto any action taken by the bank. For example in the reorganisation plan approval, the Law requires a majority vote in each class and all classes must give their approval. *OC* can vote in the opposite direction to the bank and the proceeding enters an impasse. In fact, the total actual claim of the bank should be B_1 + B_2 and the bank should be the one who has the right to decide the fate of *D*. This practice becomes much harder to trace if *OC* is involved in many more borrowings.

6.3. Financial Distress and Insolvency

Financial distress is not uncommon to the business world. Many external shocks may occur and force companies down to their knees. At the same time, their mismanagement may take a toll, particularly during recession. It is hard to distinguish whether distress is caused by external, internal factors, or a combination of both. However, it is true that strong internal management (efficiency) immunes the company against external shock and mismanagement exacerbates external adverse impacts.

It is normal for a company in distress to internally adjust itself to improve the situation. When the situation deteriorates and the possibility of non-payment to creditors is high, the company may decide to approach its creditors in order to renegotiate the debt contract. Collective action by creditors is needed when the debtor is unlikely to satisfy all debt claims, i.e., be insolvent. There are two main routes for solving this financial distress: a private arrangement or formal legally enforced procedures.

Two branches of solution are substituting as well as complimentary to each other. Choosing between them depends on the nature of the problem (debtor and creditors). Basically, the private rearrangement is less costly than the formal framework. Formal bankruptcy offers legally enforceable actions of every involved party; hence, it is guaranteed that whatever solution is reached in the court will be implemented unlike the private arrangement.

6.3.1. Rearrangement in the Absence of Bankruptcy: Private Workout

Private workout is a very broad term. It refers to any settlement or solution that a debtor has reached with his creditor(s) without resort to legal or formal institution and the debtor's business continues without significant interruption. With multiple creditors, the solution must receive a consensus among creditors. There is a wide range of possible solutions to the debtor's insolvency as discussed in earlier chapters. The solution to be implemented depends on the renegotiation game played by the debtor and the creditors.

Renegotiation between the debtor and the creditor may result in agreement on a new schedule for repayment: a new grace period, a new dateline, a new interest rate, or even debt forgiveness – so called *haircut.* Sometimes, in the case of disagreement, the creditor may thake out a legal lawsuit against the debtor to recoup the loan plus interest. Strategic default to a single creditor results in an ordinary debt enforcement when the debtor has intentionally breached the debt contract. For multiple defaults to most or all creditors, a bankruptcy procedure ensues.

Deciding on a private workout, the creditor must weigh up his returns from a new, renegotiated, contract against those from a legal action. She may have to relinquish the possibility of being fully paid on time, which, although the first best scenario, may no longer be relevant.

In Thai businesses where the personal relationship is crucial and legal action is much discouraged, the cost of ending the relationship is high because non-pecuniary benefits accrued from it are also high. Translated into economic terms, the personal relationship could be regarded as a long-term, on-going and regular set of transactions whereby both parties come to know each other better and better over time and transaction costs reduce. On the lending side, as the relationship goes on, the lower transaction costs allow lenders to be more certain on the probability of being repaid. On the borrowing side, borrowers enjoy less restrictions (less or no collateral and favourable interest rate) and easier access to available funds.

For instance, if the existing debt could produce future benefits for the creditor, she is more likely to reschedule it easily in favour of that future benefit. In addition, the cost of starting a completely new relationship with other potential borrowers and screening them is high in order to establish *boonkhun* to the debtor and make him *kraengjai*.

At the same time, a debtor may behave strategically by trying not to make any arrangement with his creditors, but just to default. He also makes the calculation between repayment with a new schedule or repayment under the authority's enforcement. To repay under the court's enforcement, the well-established personal connection with his creditor might be destroyed and he might have to find a new lender. This will become harder if he carries the 'bad' reputation on non-payment with him.

Therefore, disagreement on renegotiation is only likely to result from a strong disparity on the future of the debtor or on his ability to repay. Personal connections and relationships, however, help to reduce such disparity and make an agreement more plausible. The failure to reach a settlement would, in law, trigger enforcement by the legal authority. The problem arises when the debtor is insolvent and cannot satisfy all the claims against his assets. An ordinary legal enforcement would allow some creditors to be repaid in full while others may not be able to recoup their losses.

Providing every creditor is a loser, if the debtor's assets are insufficient to repay the debt, it is crucial to determine how much each creditor should bear a loss. Simultaneously, the direction of the distressed firm must be decided to order to maximise its economic value, in other words, minimise creditor losses. The effect of this circumstance is twofold. One is an *ex ante* decision by creditors on whether to lend or not to lend as well as on the size of the loan, on the interest rate charged, and on the period of lending, and the repayment method. Another decision concerns the *ex post* distribution of loss and the fate of the ailing company. No creditor should gain from the debtor's insolvency. And the distribution of loss and decisions on the debtor company should be efficient.

Asymmetric information about the firm value between the debtor and its creditors and high transaction costs among creditors aggravate the possibility of an efficient solution. At least, creditors must internalise their disagreement on their claims. In other words, decide how much the loss they bear and then act in unison. If this can be solved, decisions on the future of the firm are going to be the most efficient ones. Thus, the emphasis is now on how creditors with different claims and priorities reach a settlement among themselves.

Role of Financial Institutions

Discussed earlier and in Chapter 3, it could be deduced that Thai financial institutions are closely related. Many of them are related through the intermarriage and well-established family ties (Akira, 1996; Chulapongsathorn, 2000). Combined with the 'less-than-arm's-length' relationship between the debtor and creditors means that the number of creditors in a form of financial institution involved in an insolvency problem is fairly limited and the transaction costs among them, as well as with their debtor, should not be excessive. Therefore, the possibility of reaching a settlement is likely to be high.

The main concern, thus, should be in the settlement of the disputes with non-bank creditors, namely, trade creditors, judgement or legal enforcement creditors, tax and utilities creditors. Without the legal support, only trade creditors could adjust their trade credit to help the debtor. Other could not do so especially tort creditors or utility and tax creditors who may have to file the lawsuit against the ailing company. Helping creditors, if the agreement is reached, should help the debtor to repay these types of debt ahead of the rest before the settlement is implemented. This justifies the priority granted to these kinds of creditor in all legislation.[11] It also justifies the compromise of absolute priority; otherwise no private workout could have ever been accomplished.

From the outset, the settlement for a debtor's insolvency should be easily agreed. Creditors may also accept a solution that gives them less than their statutory claims, providing all of them agree on that solution. Intermarriage relationships help to internalise the conflict and increase the information shared between creditors as the Coase Theorem is applied. At the same time, the close connections between creditors and debtor should assist information disclosure from the latter in order to find plausible options for a solution.

There is a myriad of possible solution to insolvency, ranging from a simple rescheduling to a complete change of the managerial and financial structure of the firm. The solution will be the result of negotiation among creditors and between creditors and the debtor. A creditor will agree upon any solution if and only if it gives a net return of no less than the net return from the other alternatives. The return of private workout (R_{pw}) less the cost of private workout (C_{pw})

[11] BA 2543, Section 130; IA 1986, Section 59-60.

gives the net return of private workout ($R_{pw} - C_{pw}$). If the private workout has been tried and failed, creditors would bear the cost C_{pw}. Subsequently, when bankruptcy commences, the return of bankruptcy (either liquidation or reorganisation) (R_b) less the cost of bankruptcy (C_b) and less the sunk cost in the private workout that failed (C_{pw}) gives the net return of bankruptcy ($R_b - C_b - C_{pw}$).

The condition for the private workout to be chosen is where the net realisation in the private workout is higher (or at least equal to) the net realisation in bankruptcy [$R_{pw} - C_{pw} \geq R_b - C_b - C_{pw}$]. When this condition is held, it means creditors are at least indifferent between private workout and bankruptcy. Any surplus from any creditor could be reallocated to compensate other creditors' losses. If the Pareto improvement is achieved, i.e. no one is worse off from private workout, the solution is assured. Noting that there would definitely be some creditors who decide to sacrifice their investment (haircut) in private workout because their threat values in other regimes are virtually zero [$R_b - C_b \leq 0$], implies some of those creditors will forego their claim on the debtor in private workout; otherwise, they would be forced to do so in formal bankruptcy as no claim would be honoured.

Other creditors' claims may be honoured at the higher value under bankruptcy (as the absolute priority is in force) but they could decide to proceed with private workout if the additional gain has been outweighed by the higher cost of formal bankruptcy. Hence, as long as the cost of bankruptcy is sufficiently high [i.e., $C_b >> C_{pw}$], creditors are willing to relinquish absolute priority. On the other hand, if the cost of bankruptcy is sufficiently low [i.e., $C_b \leq C_{pw}$], this type of creditor would prefer not to put any effort into a private workout (Strömberg, 2000).

It is apparent, in a case of Thailand, that banks and other financial institutions are the core players in private workouts due to their relatively lower transaction and information costs among themselves and between them and their debtor. All creditors are rational to accept anything less than their pre-bankruptcy statutory claims; thus, the deviation from the absolute priority regime is acceptable.

Regarding the loss borne by creditors, whoever has the lower cost of taking risks should, according to the Coase Theorem (Cooter and Ulen, 1997), have take more losses and it is apparent that financial institutions are better able to bear greater risks than other types of creditor due to their ability to diversify their risks. Despite being restricted by lending to debtors with close connections or with high influences, they are still relatively more flexible at minimising risks comparing with trade creditors.[12]

Balance between Creditors: Ex Ante *and* Ex Post *Rights and Responsibilities*

In private workout, the deviation from absolute priority is common. The degree of loss taking by each creditor depends on the cost of taking addition risk or loss. Relatively, financial institution creditors are more able to absorb higher risk due to their ability to diversify the risk. Thus, they are likely to sacrifice relatively more of their claims for the benefit of all creditors (in order to reach an agreement).

Presumably, if there were no certain legal rule to honour a claim in bankruptcy, i.e. a rule is unknown to every party prior to the commencement of bankruptcy or a rule is arbitrarily selected by the court, the likelihood of settlement led by financial institutions would be higher because their net return is negative and equal to the situation where their whole investment is lost if agreement cannot be reached. Honouring absolute priority rules, the friction arises when financial institutions in Thailand's setting have relatively high bargaining power due to the fact that they are the majority of loan providers and limited in number too. In a bargain between financial institution creditors and trade creditors, it could be deduced that financial institutions can compel trade creditors to accept a particular solution in bankruptcy by threatening not to provide or restrict the loan to trade creditors. Trade creditors are at a disadvantage. Even though they are more vulnerable to insolvency risk, they also have lower priority outside bankruptcy (regardless of the debtor insolvency) and less negotiation power within bankruptcy.

There could be a series of adverse consequences from this situation. Trade creditors could limit their credit provision *ex ante* due to unfavourable protection from debtor default, inside and outside bankruptcy. It could further help banks and financial institutions to assess risk in lending to potential borrowers, as suggested by Biais and Gollier (1997), on credit application. This would in turn induce more credit rationing, more lending to closely related borrowers, influential borrowers, and own subsidiaries respectively. Hence, *ex ante* efficient companies would have difficulty in obtaining loans unless they had established a long-term reputation with creditors, or they are subsidiaries of lenders, or they have the backup of influential persons. These groups would then be more vulnerable to their own opportunistic

[12] One might argue that government should be the creditor with the lowest cost of risk bearing. Thus, the government should forgive tax and fee imposing on ailing firms. Tax is an obligation not a contract and the government should not be selective about which firm/industry should be taxed. Tax forgiveness could induce the strategic use of bankruptcy to avoid the tax payment.

behaviour by shifting towards higher risks as the cost of borrowing lowered: their *ex ante* efficiency deteriorates.

Henceforth, absolute priority somehow undermine the *ex ante* and *ex post* efficiency of private workout when the debtor is **insolvent** by providing the biased threat value for secured creditors thus allowing them to be more aggressive. Note this argument contradicts what Baird (1996) and Jackson (1982) said about the *forum shopping* problem.

6.3.2. Rearrangement in Formal Bankruptcy Proceedings

When private workout has failed, formal bankruptcy is normally commenced. Every step taken here is formal and must be supported by legal authority. The purpose of the proceeding is very simple. It consists of three main stages: i) to prove the debtor's insolvency, ii) once the insolvency has been confirmed, to determine the cause of action that maximises the debtor firm's value, by choosing between reorganisation or liquidation (either piecemeal or as a going concern), and iii) to distribute the realisation from the chosen cause of action among its creditors.

Seeking formal bankruptcy automatically implies a failure to reach an agreement in private workout. Failing to attain the solution means the perception of creditors toward the debtor's prospect is far too divergent and dispersed. Thus, they cannot reach the common concord on what is to be done for the ailing debtor company. It might be caused by divergent expectations and information regarding debtor's performance as perceived by creditors or by the specific assets that the debtor possesses and their highly varied valuation.

The two principal concerns in bankruptcy are ii) and iii) above. Theoretically, the distribution of realisation among creditors must be carried out in such a way that it induces the most efficient (or maximised) cause of action about the debtor's assets. This requires the incentive compatibility condition for creditor to participate in bankruptcy. What creditors would receive under bankruptcy must be at least equal to, or more than, what they are expected to get in an absence of bankruptcy. Moreover, the realisation should be less than, or at most equal to, what they would achieve in private workout or other settlements. This would prevent the problem of the *forum shopping* proposed by Baird (1996) and Jackson (1982). It is worth noting that the role of bankruptcy procedure is mainly to align the diverse perspective of creditors on the debtor's estate to help them realise their own claim under the circumstance (which is much different from their non-bankruptcy rights). A correct value of the debtor's estate, hence, could help to procure an efficient decision on its future. It is crucial for bankruptcy legislation to allow all other possibilities that are more efficient and more cost effective to be tried. In other words, bankruptcy legislation should induce the participating parties to attempt all plausible solutions before seeking the formal bankruptcy procedure.

Time is also crucial for the role of bankruptcy. A prolonged period of disagreement between claimants often results in disaster and depreciates the firm's value rapidly. Company turn-around is usually more viable at the very early stage of distress. A prompt and swift rescuing action is, therefore, needed to provide the firm with the best chance to achieve highest valuation. Bankruptcy, however, must be available at the proper time when private workout cannot solve the problem. Too quick or too early bankruptcy would deter the incentive for participants to seek the first best solution by themselves. Private workout would be less attractive and the first best solution might be averted. Economic efficiency is impaired. Time-consuming bankruptcy or the one that begins too late is usually unable to restore the company's value in time and recovery could become impossible. It may also rules out other possible solutions. Bankruptcy, in this instance, becomes useless and private workout attempts could be wasted without fruition.

Deviation from Absolute Priority

As discussed previously, it is observable that most of the debtor's claimants are willing to sacrifice their rights on assets in varying degree depending on their negotiation power and ability to take additional risk or loss. Cooter and Ulen (1997) suggest the one who has the lowest cost of bearing additional loss (highest ability to diversify risk) should take the highest loss. The question of bankruptcy relevant to this is "if there is a loss, who should take it?" It is obvious that claimants on the company should take it but how it is distributed remains questionable. Shareholders are well protected by the *limited liability* regime where they are responsible up to the amount they have invested, but not beyond that. Halpern, Trebilcock, and Turnbull (1980) and Noe and Smith (1997) are convinced that limited liability is the incentive for entrepreneurs to participate in new business ventures. It helps to mitigate the excessive responsibility which might be required. Their view is based on the belief that the risky business always brings about a improvement for the wellbeing.

Here comes the important question: should bankruptcy respect the *limited liability* doctrine or the *absolute priority* or both? We would argue that it should be dependent on the norm of business practices in the jurisdiction where the law operates. Note that most jurisdictions abide by both regimes **outside** bankruptcy.

Outside bankruptcy, in Anglo-American jurisdiction, especially in the United States, the management of the company is very competitive and vigorously assessed by the active institutional investors. The company may also face a takeover bid from a competitive managerial team. Honouring limited liability would then be counteracted by stringent corporate control. In the German and Japanese systems, the corporate control is performed by the main bank (e.g. *hausbank* in Germany) and companies accept monitoring by the bank in good times and intervention in bad times. Banks also hold a certain proportion of shares in German and Japanese companies too. Therefore, the Anglo-American economy should be more attached to *limited liability* because it could be neutralised by active corporate control; the German and Japanese economy should, in contrast, adhere more to the *absolute priority* rule to give the incentive to banks to control their debtor companies (Armour and Cheffins, 2002). *Limited liability* provides the incentive for monitoring by shareholders and management; while *absolute priority* provides the incentive for monitoring by creditors.

Thai companies are comparatively isolated from outside corporate control – both from creditors (banks) and shareholders/competitive management. Corporate governance in Thai firms is predominantly internal by the majority of shareholders who usually belonged to closely linked relationships, for instance, family or friends. Other shareholders are unable either to vote against the existing management or nominate the competing management. For banks, unless companies are their subsidiaries, would not engage in active control; they would entrust this to self-governance by the debtor on the basis of the trust and honour. Active control by banks indicates a suspicion and distrust that could eventually damage the personal relationship. Despite both *limited liability* and *absolute priority* being enforced, the lack of active corporate control before the advent of distress can be clearly seen.

It is, thus, relatively more difficult in Thailand, once insolvency is looming, to identify whether the distress has been caused by an insufficient corporate control that induces opportunistic managerial behaviour or by an exogenous shock beyond everyone's control. Corporate control in both Anglo-American and German-Japanese corporations is exerted at a relatively higher degree than in Thailand.

After bankruptcy commences, it can be seen that US bankruptcy legislation relatively favours the debtor. US Chapter 11 has a provision supporting the '*debtor in possession*,' where the existing directors of an insolvent firm are allowed to perform their tasks during the proceedings. This implies that *limited liability* is preferred over *absolute priority*. Many researchers have observed the deviation from the absolute priority in US Chapter 11 (for example, White (1996)). On the other hand, German-Japanese legislation is relatively kinder to the creditor. Hence the *absolute priority* is well respected at the cost of *limited liability*. Note that either limited liability or absolute priority must be consistently honoured. The Anglo-American system honours limited liability in bankruptcy as well as outside. Analogously, the German-Japanese system honours absolute priority in and outside bankruptcy. Mismatching these regimes in and outside bankruptcy will cause incentive incompatibility and reduce the effort of monitoring pushes up the overall insolvency risk.

There is, however, no clear distinction between pro-creditor or pro-debtor bankruptcy. In the UK, the Insolvency Act 1986's '**administration order**,' is equivalent to US Chapter 11, but it does not allow 'debtor-in-possession.' Once the administration is commenced, the incumbent management would automatically be replaced by the administrator, who is a qualified insolvency practitioner.[13] It also implemented in conjunction with the Company Directors Disqualification Act 1986 where the unfit director may be discharged from the company and subject to a civil punishment.[14] These show the departure from *limited liability* under bankruptcy.

For Thailand, it is more difficult to ensure honesty and diligence in self-monitoring as the benefit of doing so could be easily overcome by other pecuniary rewards from risky investment opportunities or non-pecuniary private benefits. A sudden rise in a short-term benefit may induce the company director to drift off, take more risk, and prepare to sacrifice his long-term relationship. Such corporate governing tools, based on trust and honour, are prone to *ex post* opportunistic behaviour, i.e., moral hazard. Together with the concentration in shareholding, Thai firms are subject to a very relaxed corporate governance.

Hence, there is only the creditor side left to improve the corporate control of Thai companies. However, it can be shown that if creditors carefully adjust their portfolio, they could avoid taking additional risk with an insolvent debtor. This would also imply a relatively higher ability of financial institutions to bear loss than other types of creditors. Thus, the *absolute priority* rule must be respected in bankruptcy in such a way that there is no reshuffle of or repercussion on the order of creditor priorities gained prior to insolvency. This means no creditor must receive, in bankruptcy, more than other creditors who are of higher non-bankruptcy priorities

[13] IA 1986, Section 13-20.
[14] Company Director Disqualification Act 1986, Section 6

than her. But it does not imply that creditors must receive as much as they would in ordinary default (debtor defaults but is solvent). The order of the repayment of the claim must be preserved. Otherwise, creditors who gain priority in bankruptcy would attempt to start bankruptcy proceedings too early; simultaneously, creditors who lose priority in bankruptcy would not want to participate and *vice versa.*[15]

At the same time, clauses, regulations, or laws on mismanagement by executives should be devised in order to induce the management (majority shareholders) to perform their tasks with 'due care.' Such enforcement needs not to be as extensive and elaborated as the UK's Company Director Disqualification Act 1986. But the western type of company law has not taken into the account the nature of shareholding concentration, cross-holding, and close connection shareholding. Hence, it fails to institute a mechanism for sufficient corporate control and governance. In Thai companies, voting and selection of managerial executives virtually plays no role in corporate control.

The Loss Bearing Ability of Creditors

A portfolio analysis is applied to explain the ability of creditor to maintain a certain level of risk. Instead of holding various assets, creditors have a portfolio of various debtors (or claims on them). They can maximise the return on the portfolio of mixed debts by carefully selecting debtors and projects associated with the debtors. In bankruptcy, therefore, creditors could bear additional loss as long as the priority at the time of the contract is maintained. Also, financial institution creditors are in the better position to absorb loss in the case of bankruptcy than trade and other creditors. Consequently, a Pareto improvement can be achieved in bankruptcy even if creditors need to bear a greater loss (see Appendix at the end of this Chapter).

The Trading of Non-Bankruptcy Claims by Creditors: Debt Offsetting

As creditors are capable of absorbing some losses without taking higher risks, especially financial institutions (see 4.8.2. and Appendix at the end of this chapter), they have a pivotal role in insolvency. Deadlock and disagreement are the result of dispersed creditors' anticipation on the debtor's future prospects. Reducing the number of creditors would increase the probability of an efficient outcome. In retrospect, if there were a single creditor, bankruptcy is irrelevant.

[15] The problem of *forum shopping*, suggested by Baird (1996) and Jackson (1982), would be the result of this circumstance rather than the additional loss creditors should accept in- and outside bankruptcy.

The creditor would choose the way that maximises returns (or minimises loss) as she is the one who will receive everything from that disposal.

If bankruptcy legislation, at least, does not make any creditor worse-off (comparing all alternatives **under** bankruptcy, not **between** bankruptcy and outside bankruptcy), creditors' choice on debtor disposal will be efficient because only the disposal that maximises the total value of the estate will maximise each and every creditor's claim. The pre-bankruptcy rights may be compromised but its order of priority must be retained. Nevertheless, the violation of pre-bankruptcy claims should not benefit the debtor or its management in any way; it should be redistributed among creditors according to their ability to bear loss, i.e., those who are more resistant to loss get more.

Given the nature of borrowing, institutional arrangement, and Thai business practices, we, therefore, propose the mechanism of debt offsetting to be implemented in the Thai bankruptcy legislation. This mechanism aims to overcome some drawbacks may arise if the western type of bankruptcy legislation is enforced and to exploit the fundamentals of Thai economy to solve insolvency.

The Conceptual Mechanism

The solution we are suggesting is similar to that made by Bebchuk (1988) and Aghion, Hart, and Moore (1992) conceptually but different in practice. Instead of issuing options claimed upon a debtor's asset priced according to the pre-bankruptcy priority, a mechanism to allow the trading of claims (i.e., the trade of debt) between creditors should be devised. Due to the fact that there is a very limited number of banks and financial institutions but a vast amount of trade and other classes of creditors, it is very likely that trade creditors are debtors to the financial institutions creditors themselves. Institutional creditors, hence, have a pivotal role in the mechanism (see Figure 6.3).

Figure 6.3 illustrates relational connections in terms of borrowing and lending between various creditors and a typical debtor whereby financial institutions, primarily commercial banks, are playing a pivotal role. There could be a large number of creditors who have claims on the debtor's assets. The number of financial institution (*FI*) creditors (or commercial banks), n, is significantly much lower than the other types of creditors, k for trade (*TC*) and m for unsecured creditors (*C*) ($n << k$; $n << m$). Moreover, it is highly likely that other creditors (*C*), who have claims on this very same debtor, are customers (debtors) of financial institutions. Noticeably, ultimate creditors in each insolvency case are very limited and they should be able to delivery better solution than having every single creditor make a decision.

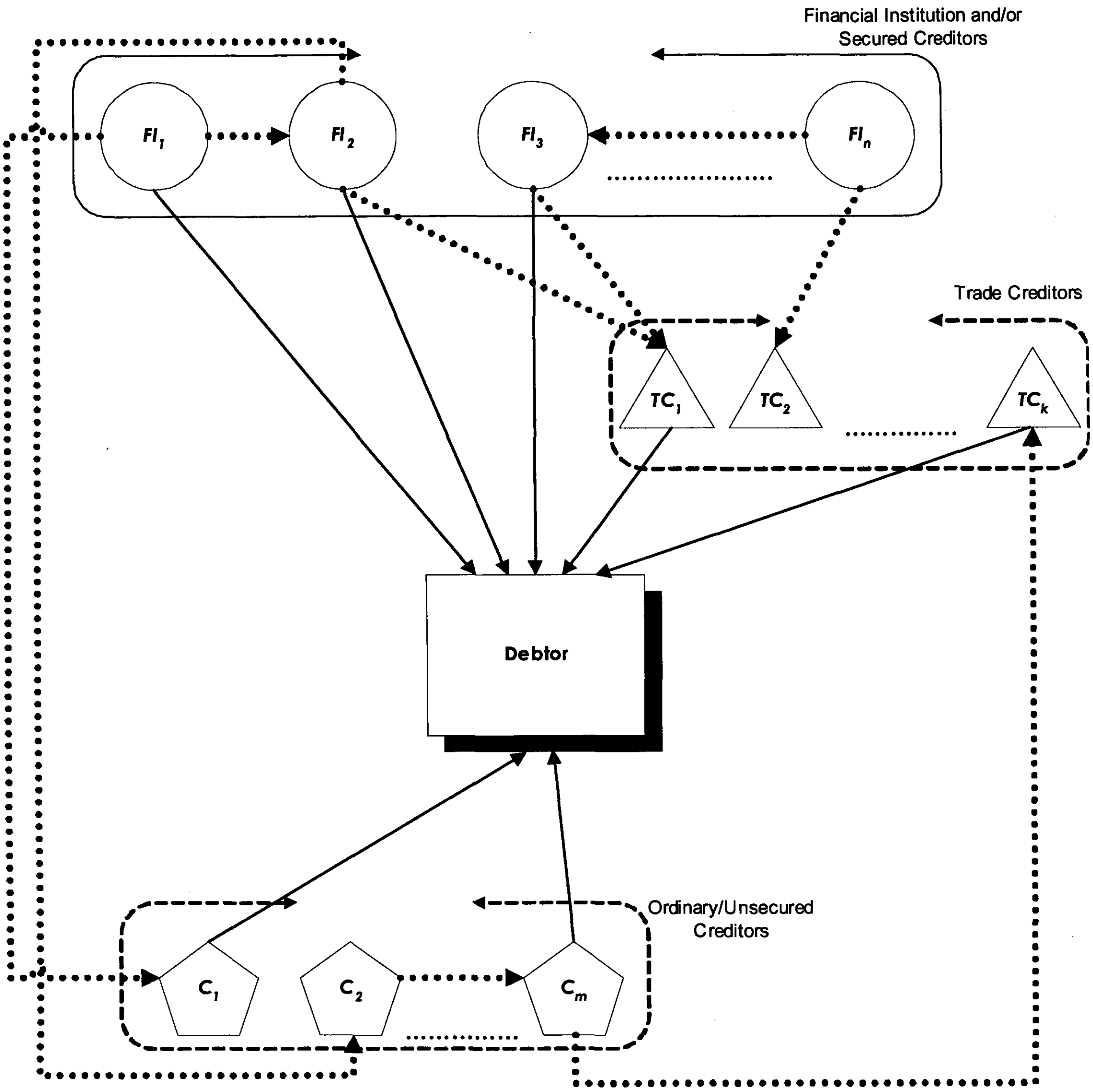

Figure 6.3. Relational Lending-Borrowing Activity of a Typical Debtor

The concept is simple: it allows for creditors to trade their claims on the debtor with claims between themselves. Assume two creditors, C_i and C_j, have the claims on the insolvent debtor D worth B_i and B_j respectively. C_i is assumed to have a claim on C_j (outside the case) worth B_x. Under this regime, C_i may decide to:

[I] sacrifice the claim on C_j (B_x) and acquire the claim that C_j has on D (B_j) [this implies she trades B_x for B_j, and finally has a claim over D equal to B_i + B_j by forgiving B_x to C_j], or

[II] sacrifice the claim on D (B_i) to acquire more claims on C_j [this implies she trades B_i for more claim on C_j which will be $B_x + B_i$ or C_j is willing to increase the indebtedness with C_i from B_x to $B_x + B_i$], or

[III] not to trade.

The choice is determined by an agreement between C_i and C_j: Choice [I] would be chosen if it gave C_i higher expected return than [II] and [III] and *vice versa* (see Figure 6.4). Similar rational is applied for other choices. If Choice [I] is chosen, C_i becomes the sole creditor to D and she is the one who chooses the deployment method that maximise her own utility. If Choice [II] is selected, it implies that C_j is the new sole creditor to D and will choose the deployment that maximise her utility. We refer to this mechanism *debt offsetting*. The interpretation is: for Choice [I], C_i is relatively certain about the future of the debtor and would like to have a power to decide about D's future. It further implies that the cost of sacrificing d_x is lower than the expected benefit C_i could earn from being able to select her preferred deployment. For choice [II], C_j is the one who is more certain about D's prospect.

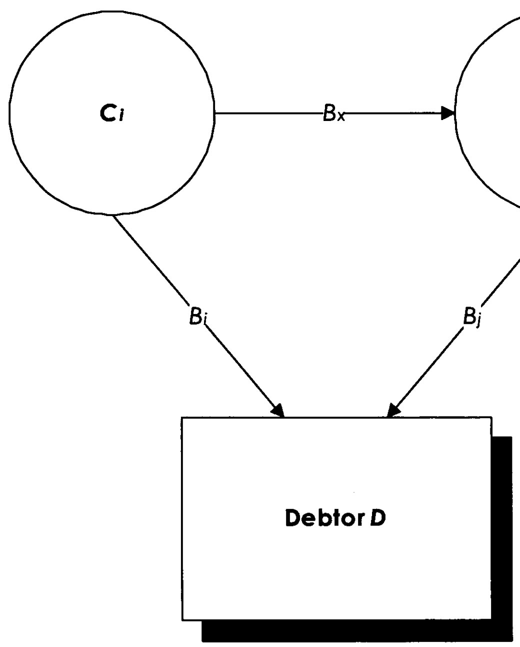

Figure 6.4. Debt Offsetting

Note that this mechanism is not intended to be a main mechanism. It is supposed to be used during renegotiation and when there is a failure to continue with reorganisation. It should be used whenever there is an impasse instead of awaiting the court to exercise its discretion on the fate of the debtor firm.[16] We have proved, in Chapter 5, that such a usage of discretionary power would do more harm than good. This would present a threat to all participants not to use the procedure strategically and to reveal their actual outlooks on the debtor.

[16] i) failure to appoint the planner, ii) failure to approve the plan, ii) failure to appoint the plan administrator, and iv) failure to complete reorganisation

How it works

Apart from the classification of creditors by the current standard (according to priorities and interest of claims), all creditors should be also classified according to their relational status (being creditor or debtor) between each other: whether one creditor is a debtor to another creditor within the same case. Financial institutions may also be debtors (or creditors) of each other. The classification would not concern the maturity of their borrowings.

Within a certain period of time specified by the law (preferably should be between the announcement of the reorganisation order and the approval of reorganisation plan), all creditors are allowed to trade their claims with each other or, to be more precise, with their banks or financial institutions. The trade is non-pecuniary. It is not for money but for balancing out debt between creditors. For instance, trade creditor *T* who has a claim of 1,000,000 *baht* on the insolvent debtor *D*, at the same time, *D* owes bank *FI* 1,000,000 *baht.* Suppose two of them disagree on how to dispose *D* in bankruptcy. They might never reach agreement because their vote is tied so this would need the resolution from the court even though this may be the most inefficient choice. Under this scheme, if *T* is also a debtor of *FI* with a debt face value of 500,000 *baht*, *FI* could buy the claim of *T* on *D* at the price of 500,000 *baht.* Now, *B* has the claim of 1,500,000 *baht* on *D*; *T* has the claim of 500,000 *baht* on *D*; and *FI* has no claim upon *T* (due to the trade). For the voting in bankruptcy, *FI* will win and will decide on the disposal of *D*. This would imply a different valuation of 500,000 *baht* between *T* and *FI* on *D*. In the example, *FI* values this claim more than *T* does, that is why she offers to buy the claim from *T* (see Figure 6.5).

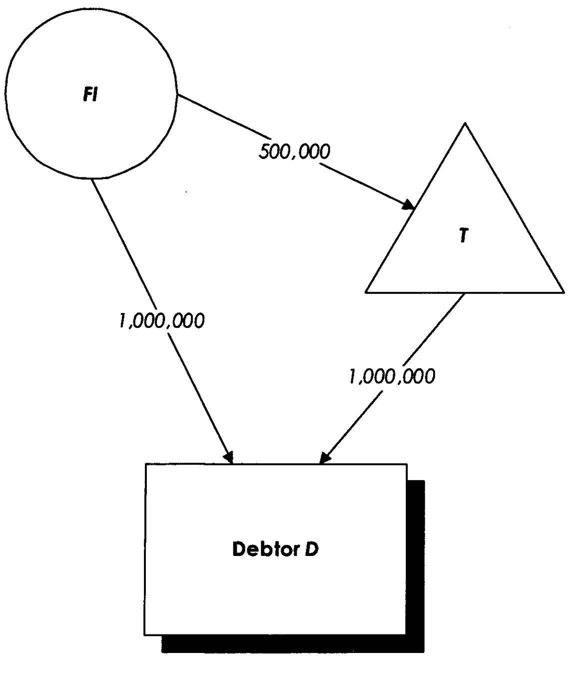

Figure 6.5. Example of Debt Offsetting

The trade may apply for owning principal, interest, or both for any two creditors. More importantly, this mechanism should be enforced by law under the authority of bankruptcy legislation.

There might be a concern about the priority of trading claims. If there are n classes of creditors, the court could assign the 'discount rate' δ_i to each class of claims to use in the offsetting in such a way that the most senior claim has δ_1=1 and subsequent classes have $\delta_2 > \delta_3 > \ldots > \delta_n$ respectively (where $0 < \delta_{i\neq 1} < 1$). If lower class creditor wants to 'buy' the claim from the next higher class creditor by forgoing the debt worth A, she would get only $\delta_i A$ ($< A$). If she wants to acquire the claim outright, she needs to forgo $(1+\delta_i)A$. If the discount rate is properly calculated, it could result in the voting being unanimous in each and every class of creditor, regardless of the outcome. We would suggest that it reflects the true proportion of each class debt to the total claim, satisfying $\delta_1 D_1 + \delta_2 D_2 + \ldots + \delta_n D_n$= total debt, where δ_1=1 and D_i is the outstanding debt of class i.

Implications

With this process, creditors are encouraged to trade their claims with others. Those creditors who believe in what they want to do with the ailing debtor would maximise their return or minimise their losses. They will try to gain their vote by purchasing claims from other creditors in order to gain voting rights and put their plan forward. They finance their purchase by giving away their claims on other creditors in the same case – no monetary transaction. Analogously, those creditors who believe their return from bankruptcy would be less than the revenue from a claim trade would sell their claims and leave the bankruptcy process. Their revenue is non-monetary but a higher degree of freedom by being released from other creditors in the same case. Eventually, the mechanism would diminish a number of creditors from the case. Some creditors will leave the case and some others will be more decisive in the case.

The effectiveness of this mechanism increases with greater difference of creditors' expectation on the debtor's prospects. If the expectation is not so divergent, there is a higher likelihood for creditors to select a similar solution and the trade under this scheme would not be very effective. This circumstance denotes that the maximisation of the debtor's asset is no longer a problem. The problem is one of distribution of such a realisation among creditors.

If there is a deadlock (possibly due to creditor opportunism), providing creditors have been allowed to trade their claims voluntarily, the court may require them to trade or balance out their debts on a compulsory basis. This would impose the significant cost for behaving opportunistically and could reduce a delay by creditors.

The suggested mechanism would help to reduce the number of creditors involved creditors. In other words, it reduces dispersion of creditors' perspective on debtor's asset value. For all transaction costs are borne by creditors, they have to weigh up the cost and benefit of pursuing a claim on the debtor's estate or accepting something else. This mechanism shows them the relative price for gaining the right to control the debtor.

Trading debt claims is not prohibited by law and it can be done fairly easily. The court need not exert any judgement upon the valuation of the debtor's estate or subjectively decide the debtor's fate without sufficient information. The intervention by the court is likely to do more harm than good. Debt contracts among creditors are easily identifiable and verifiable, even for forced trading. Voluntary claim trading is costless to the process. In addition, this trade will not affect creditor's wealth constraints since it is non-pecuniary. It may impose some extra cost on involving creditors. However, they are presumably in a close personal contact and so transaction and negotiation costs for them are relatively low. The law must then have a clause to enforce agreement on the trade of claims. It should also have a proper system to accounting for those who relinquish their claims and those who gain a claim in bankruptcy.

In the case of forced trading, nonetheless, using this mechanism would increase the number of legal documents involved drastically, especially when there is a lot of trade. The administrative costs would rise. Furthermore, forcing creditors to trade their claims may increase transaction costs significantly. This will mean the court dealing with an even larger amount of debt contracts including those between an ailing debtor and his creditors as well as those between creditors themselves. Who the bearers of these transaction and administrative costs are is worth further analysis.

The only practical complexity is to make all creditors reveal their relationship between themselves. Creditors are only required to provide proof of debt between them and the insolvent company. Requiring them to declare all borrowing and lending amongst themselves is exhaustive, costly, and time-consuming.

Without losing the effectiveness of this mechanism and imposing overly high costs on creditors, they may be allowed to proceed as usual until the classification of creditors. Usually, the law dictates that classification should be based on the nature of claim (priority and interest of creditors).[17] If creditors believe that the classification is unfair, they may protest. At this stage, if there is a protest against an improper classification, disagreeing creditors must provide proof of lending or of borrowing between themselves and other creditors within the class in dispute; our proposed mechanism commences here.

[17] BA 2543, Section 90/42 *bis*.

This is an easier approach. The law has already required that special majority voting (two thirds of total voting rights) must apply to every class of creditor.[18] This implies creditors within any class are agreed in their bankruptcy claims to a certain extent if no dispute on classification occurs; thus, they are likely to vote in the same direction. Dispute within a particular class indicates mounting disagreement which could undermine the forthcoming voting. There usually are those who want to increase their priority to match with a class of higher priority. The elimination of creditor would take place class by class. Permission to trade non-bankruptcy claims, consecutively, assists in the classification of creditors, both before and after the dispute. Before a dispute starts, creditors have a chance to negotiate privately and reach an agreement which later being endorsed by the Bankruptcy Court. This would prevent any subsequent dispute. When there is a dispute about class and it cannot be readily settled, the court could use forced trade as a tool to stop a conflict, thereby preventing a costly delay and not making the dismissed creditor worse off.

Contributions

The mechanism of debt offsetting has many advantages, compared with the existing legislation and with the Bebchuk's type (including Aghion, Hart, and Moore's variant) as follow.

i) *Non-pecuniary transaction*: Debt offsetting involves no real money. It just allows comparable debts to cancel out with each other. A particular creditor, at the end, eventually has more (less) debt on the debtor by reducing (increasing) a debt with other creditors. Its novelty is that budget constraint of creditors is irrelevant; therefore, creditors' wealth or endowment has no effect. This is beneficial when macroeconomic condition is bad and financial constraints of creditors are tightened. The Bebchuk's type mechanism requires pecuniary transaction in order to buy options which are converted from debts. Under Bebchuk's variants, lower-priority creditors need to pay quite a large sum of their wealth to buy options. In our propose scheme, they simply need to sacrifice more debt on other creditors (particularly on higher ranking ones) to obtain more debt on the debtor. Although the debt on another creditor worth A would worth less than A in this trade, this creditor needs not to actually pay out her wealth: she just forgoes the expected return on the repayment from another creditor to gain the debt on the debtor.

ii) *No conversion of claim*: This mechanism does not convert debt into equity. This will not affect the preference of creditors between different deployment methods or between inside and outside bankruptcy. It is worth noting that if they prefer to hold equity from the outset, they will invest through the stock market not lending. In addition, since reorganisation,

[18] BA 2543, Section 90/46 and 90/46 *bis*.

most of the time, requires additional loans during the process, existing creditors are usually the best sources of new loan. Conversion will put their pre-bankruptcy priorities to the very last. This could make them worse off.

iii) *No change of financial structure and legal ownership*: Subsequent to what occurs in ii), the debtor's financial structure also remain unchanged. Creditors are creditors and the debtor's shareholders and management are still lawfully own and manage the firm – even though their control rights are suppressed by the bankruptcy law. This allows the good but unfortunate management to remain being a lawful controller of the firm. In Bebchuk's type regimes, existing shareholders and management are replaced by creditors. Non-replacing nature of our scheme would attract the debtor to voluntarily and genuinely participate in bankruptcy in order to turn round. This would also reduce debtor's incentive to be *ex post* risk-taking in an attempt to unilaterally solve its distress. The threat of management replacement is crucial *ex ante* because it will induce the debtor's management to be diligent. This threat may be weaken in our mechanism but, at the end, it would be reinforced by stronger and more decisive creditors' vote.

iv) *Exploit less-than-arm's length business relationship*: Our mechanism is aware of close relationship and network of personal connections in Thai businesses. It utilises the pivotal advantages of Thai commercial banks and financial institutions whereby they are in relatively small numbers and have ability to absorb losses better than other creditors. Since the transaction cost between financial institutions (especially commercial banks) and other creditors is relatively low, the debt offsetting could be easily achieved.

v) *Reduce delay and prevent impasse*: The value of debtor's estate is declining overtime and the prompt rescuing effort is required. Prolonged or even indefinite delay due to plausible disputes in many stages may prevent successful reorganisation. Under the current law, the timeframe is flexible. This would allow anyone to use strategic delay in order to gain its position at the expense of others. Whenever a substantial delay is occurred, a predetermined timeframe has been reached, or an impasse is happened, the proposed mechanism could be implemented on a compulsory basis.

vi) *Avoid subjective discretion*: The court is relatively uninformed about debtor's business. It would be more harm than good to allow the court to exercise its discretionary power when there is no solution. We have proved that the subjective judgement would cause an adversity of the case and should be strictly avoided (see 5.4.3). Our scheme requires no court's subjective discretion. Hence, no judgemental error would ever occur; all decisions are made by respective creditors.

vii) *Undermining an incentive to collude*: The suggested mechanism could prevent the strategic use of reorganisation by the debtor and/or the collusion of debtor and some creditors (see below in 6.5.4). The possibility to trade the claims would certainly influence the expected return of creditors that could further undermine the coherence of the coalition. Assuming some creditors had formed the coalition with the debtor to pursue particular expected returns, which is better than the outcome of no collusion at the expense of non-participating creditors. Colluding creditors, with the possibility of trade, must weigh between the expected outcomes from the coalition and the one from the claim trade with others claimants. Note that the return from claims trading is relatively more apparent and its realisation is relatively shorter run than the return from reorganisation with collusion (or even without). Notwithstanding, the uncertainty of the return from reorganisation is higher while the trade of claims has no associated uncertainty at all. Consequently, it might be less attractive for joining the coalition because one could take the certain outcome from claim sales and walk away from the costly and time-consuming process. Only when participating creditors have strong beliefs on their plan that it would succeed, they would remain in the coalition. The proposed mechanism weakens the incentive to collude in reorganisation and, subsequently, reduce the possibility of poorly managed company to survive through reorganisation.

Impediments

i) *Legality*

One possible impediment in the implementation of this mechanism is about its legality. It would basically contradict the concept of 'freewill' that all participants in any contract should be willing to agree upon the terms of the contract without being forced. The voluntary trading of debt claims is justified if the rights and obligations of creditors are regarded as a kind of financial instrument which can be traded. However, in this case, the trade is not for cash or for other types of instruments but for negating the debt between creditors.

ii) *Maturity of the Debt created by Offsetting*

All debts in bankruptcy are accelerated but not external debt. Therefore, the debt outside with an earlier maturity is more certain than the one with a later maturity, hence, it is more preferable to the receiving creditor. The opposite is true for the transferring creditor. This problem could be cured by assigning another 'discount rate' to adjust a different maturity. Debt due before the implementation of a reorganisation plan could have a discount rate equal to one. Debt with later maturity could have a lower discount rate. For instance, $1 = \mu_1 > \mu_2 > \ldots > \mu_t > \mu_{t+1}$, where the maturity is ranked from 1 to $t+1$ – the earliest to the latest, respectively. The choice of the rate is arbitrary but the rule should be clearly defined in the legislation. Hence, the debt of the most senior class and earliest maturity would have the combined discount rate equal to one ($\mu_1\delta_1=1$) and the debt of class i with the maturity at time t will have a discount rate $\mu_t\delta_i$.

6.4. Problem of Claim's Priority and Claims' Valuation

The most prominent problem in bankruptcy is to distinguish between the most efficient disposal of the debtor (to liquidate or not to liquidate) and the most efficient distribution of the realisation of the selected method among creditors. It is worth re-stating that the first best solution for bankruptcy is simultaneously to achieve the followings:

i) *ex ante* not induce creditors to restrict their lending too severely, i.e., no severe credit rationing, no excessive interest rate, and not by making the loan too expensive or costly to obtain;

ii) *ex post* allocating the distress company's resources in the most efficient way, i.e., choosing the alternative (among liquidation, going concern, or reorganisation) which maximises the company's value;

iii) *ex post* distributing the creditor's losses efficiently, i.e., no creditor receives nothing and no creditor receives more than her original claim and more than other creditors who have higher priorities than her.

It is known that each goal is contradictory with each other. To achieve one, others have to be sacrificed. With reference to Thailand, it is believed that current business practices on borrowing, where the cronyism is dominant, make the effective cost of borrowing too low, taking into the account the ease of borrowing and, thereafter having poor monitoring by creditors. Therefore, creditors are supposed to bear an additional cost on borrowing/lending *ex ante*. The desirable result, on the creditors' side, is not greater credit rationing or higher interest rates, which could induce more reckless borrowing, but higher systematic screening and monitoring by creditors. Institutional and trade creditors can be very influential on efficiency. Monitoring efforts by these creditors can improve debtor efficiency significantly. However, the problem of *free rider* increases as the number of creditors grows and the incentive for monitoring declines. As discussed earlier, the personal connection also dissuades the monitoring effort by creditors. It is then crucial for legislation to encourage more monitoring in order to prevent insolvency *ex ante*. The simplest way to achieve that is to increase the cost of insolvency borne by creditors. This should cause a shift away from an absolute priority regime and may result in higher *ex ante* credit rationing if the exposure to higher insolvency costs makes potential lenders worse off. The *ex ante* benefits of risk reduction may outweigh the costs of *ex ante* credit rationing.

It is crucial to distinguish between an awarded amount of a claim in bankruptcy, i.e. how much non-bankruptcy claims would be honoured by the court, and a priority of repayment and non-pecuniary rights in bankruptcy, i.e. should the court pay respect to such priority and rights which were obtained outside bankruptcy? Hence, we suggest the priority and rights that are not related with the amount of the claim should be fully honoured and the awarded claim in bankruptcy should be less than or equal to the original claim according to the ability to suffer loss.

Priority of Claim

The priority of claims is an important issue particularly after bankruptcy has commenced. Disagreement upon this matter hinders the proceeding and causes immense delay, which further reduces the value of a debtor's assets and/or prevents a timely rescue, if there is any.

Although there are many researches reporting deviation from the pre-bankruptcy priority (White, 1996; Warren, 1987) in both private workout and formal bankruptcy, some other researchers, like Baird (1996) and Jackson (1982), argue that the disrespect of pre-bankruptcy claims and rights is leading to the problem of *forum shopping* where debtors and creditors are trying to pursue their own rights, i.e. maximise their return, in different ways depending on which is the one for them, namely, outside or inside bankruptcy.

They suggest different priorities in different legal procedures could create much uncertainty before a contract is made and also create a host of problems if the debtor is insolvent. Furthermore, they suggest the strict respect for pre-bankruptcy claims and rights is a must during bankruptcy, particularly for those secured creditors who have a security on the debtor's assets.

On the additional loss to be borne by creditors, this is not always the case, i.e., creditors are not always worse-off if their pre-bankruptcy rights are not fully regarded. Due to the ability to adjust the portfolio to minimise the risk, at least financial institutions, creditors should have a lower cost of risk avoidance compared with trade and other kinds of creditor. Therefore, according to the Coase Theorem, it is rationale for them to bear more risk than others. Loss of the debtor, consequently, should be spread and shared by creditors according to their abilities.

Nonetheless, their order of priority gained outside bankruptcy should be preserved: this means an order of repayment and non-pecuniary priorities. If not, disagreement would drastically impair the bankruptcy proceedings and lead to a prolonged dispute between creditors which would only make the matter worst. The ambiguity of different pre- and post-bankruptcy order of priority would also increase uncertainty for those who are potential lenders and deter them from engaging in the lending.

Claim Valuation

If the ordinal priority is honoured in the same way as if were outside bankruptcy but not the cardinal priority (or the amount of the claim), the next question is how the bankruptcy claim is determined. It is impossible, or extremely costly, to measure and verify the ability of creditor to bear the loss. We know for fact that financial institutions are in a better position to cope with loss as they have a wider range of customers (debtors) than other types of creditor. But the exact magnitude of such ability remains unknown.

Many devices are already incorporated in the legislation, particularly regarding secured creditors, to extract the information about their valuation. For instance, in Section 96, if the secured creditor decided to hand in her security for the benefit of all creditors, the court would fully honour the claim providing the assessment of the security by the creditor is lower than the one by the authorities (which is the official receiver in case of liquidation, or the reorganisation planner or plan administrator in the case of reorganisation). If the assessment by the creditor is higher, the claim will be repaid up to the value of the authorised assessment and the remainder will be regarded as unsecured debt with the lowest priority.

These devices are more suitable for liquidation where under-assessment by the creditor (the creditor reveals a preference that would not make her worse-off) helps to increase the total value of the insolvent estate. Meanwhile, over-assessment by the creditor (which may be caused by the opportunistic behaviour of the creditor herself) is not fully honoured in order to protect the interest of other creditors. It may be based on the piecemeal assessment (market value), which discards the possible synergy between the security in question and other assets in the firm. Also, the assessment is partly subjective to the discretion of the authority.

The suggested offsetting mechanism analysed above would help creditors to reconcile their dispute by allowing them to re-evaluate their claims in circumstances where they cannot get full repayment and the loss of their investment must be shared. It is free of any complex and costly assessment. No subjective assessment is involved. Furthermore, forced trading poses a threat for creditors to be less opportunistic and encourages them to be more active on a private workout *ex post* and monitoring *ex ante*.

We believe it is crucial that the valuation of the insolvent firm must be done by its stakeholders. Obviously, shareholders, regardless of their real, underlying valuation have failed to evaluate the value the firm correctly, otherwise they would be able to convince creditors to rescue the company in private workout or repay the debt using their private wealth (which is relatively easy to do in Thailand due to the nature of shareholding). Even if they are able to do so, it is possible that they are behaving opportunistically by taking the company into bankruptcy with the hope to revive it at the creditors' expense and then regain the control. Therefore, the role of shareholders and existing management should be void in bankruptcy. Intentionally or not, default on the debt would lead to a switch of ownership from shareholders to creditors.

Other stakeholders, as well as outsiders, may be involved in the valuation by allowing them to submit bids for the whole company before the whole process of bankruptcy commences, subject to the creditors' approval. If creditors are agreed, the company must be transferred into the bidder's possession and any realisation of assets from the sale must be distributed to all creditors.

The inclusion of this auction is useful in some ways. In reorganisation, if the planner (whoever appointed him – creditors or shareholders) proposes a plan that gives creditors less than the maximum bid, the company should be automatically sold to the winning bidder and reorganisation must consequently be terminated. This would create a threat value to control the planner to be careful and just in his planning. If the planner is backed by a certain group of creditors, he might be trying to favour his own group of creditors at the expense of others. If the planner is backed by shareholders or the existing management, he may try to arrange the plan in favour of his appointers. The threat of disposal to the winning bid would act as an incentive to align the planner's preference with creditors' preference as a whole. The provision also makes the existing management and shareholders of the debtor company aware of the possibility of losing control and thus to be cautious and truthful before filing a petition for reorganisation.

6.5. Evaluation of the Thai Bankruptcy System

Given the structure of Thai corporation and business practice as well as the lending-borrowing relationship, bankruptcy has little role to play when a company is potentially insolvent. With a close relationship between debtor and creditors, high reliance on debt financing, and limited financial institutions, the potentially insolvent company should be able to seek a proper rescue before anything goes really wrong. The insolvency problem could be solved mainly by private workout.

However, cronyism and a less-than-arm's-length business relationship with the mixture of family affairs are allowing corporate management to behave opportunistically. At the same time, this discourages the incentive to creditors to monitor. Corporate management are attracted to riskier investment than normal. Occasionally, it turns out to be profitable and creditors do not care what kind of investment the debtor was taken as long as repayment is received. It is somehow self-propagating particularly when the economy is good. The economy in downturn, on the contrary, could tighten the financial situation of such management and lead the debtor firm to the verge of insolvency. The following is a discussion about the bankruptcy system in Thailand, both private and official, legally enforced, to investigate its institutional arrangement, its function, and its achievement in solving insolvency.

6.5.1. Private Workout

Presumably, private workout should be an economically superior solution to formal bankruptcy in the Thai context because no legal expense is incurred, unstructured renegotiation is more flexible and time is saved as well as allowing the network of private connections to minimise transaction costs. Its efficiency, however, deteriorates in a recession of the overall economy and a tightening creditors' budget constraint. Creditors become less co-operative as their financial constraints are tightened. Financial institutions may be faced with a large number of their debtors on the brink of insolvency. Their ability to help decreases considerably. Nonetheless, because all creditors, especially financial institutions, are very closely linked to each other, they may be able to consolidate and offer a rescue plan to ailing companies.

Creditors are key players in the Thai bankruptcy system. Their co-operation is necessary for the success or failure of a particular insolvent company. As long as they have a similar outlook for the future of the debtor company, private workout could result in a successful solution.

Nevertheless, the sufficient condition is the truthful and honest behaviour of the debtor. If the management of the ailing firm were not assisting creditors in order to make the rescue successful, it would induce disagreement amongst creditors, particularly when the debtor is selectively trying to favour some creditors at the expense of others. Such opportunistic behaviour by the debtor management is counterproductive and causes failure in a private workout.

Henceforth, the failure of a private workout is presumably resulted from poor co-ordination between creditors and opportunistic behaviour and obstinacy of the debtor. Financial institutions are unlikely to have a problem of co-ordination due to their close relationships; but trade creditors may threaten the workout by filing a petition for debtor's default or for bankruptcy because they are relatively insignificant in terms of the amount owed. An increase in the number of creditors raises the transaction cost, which, in turn, deter private workout. Debtors are not resilient as bankruptcy can lead them to lose their companies.

Even though agreement is reached, there is no guarantee that all creditors as well as the debtor will adhere to it. The fear of somebody's deflection from the agreement discourages the effort to engage in private workout.

6.5.2. Assisted Pre-bankruptcy Negotiation or Supervised Tribunal

Apart from formal, legalised, procedures, it is possible for creditors to gather together and consolidate the effort on negotiation among themselves and between them and the debtor in a more structured way, instead of pursuing individual negotiation. One of financial institutions may take the lead to co-ordinate with other creditors, providing they know each other well enough.

Again, the transaction costs of arranging and co-ordinating creditors increase as more creditors are involved. We believe that this is not the prime reason preventing them from getting together because there are less than 70 financial institutions and around 20 commercial banks in Thailand and transaction costs should not be excessive, particularly as most of them belong to fewer than 10 business conglomerates (clans). Meanwhile, there are more than 500,000 companies registered in Thailand. What dissuades them from co-ordinating is rather a *free riding* problem because co-ordination benefits creditors as well as the debtor. Actually, only one mediator or one group of creditor is enough to lead and encourage a joint approach for their debtors to debt restructuring. However, any creditor who initiates co-ordination would bear the cost of doing so until the debtor becomes solvent again, while at the same time the rest of creditors would enjoy the benefit of the co-ordination. Unless someone acting as a mediator is paid by someone for their services (either from the debtor's estate or outside source), all creditors will remain inactive. Creditors also know that they can still definitely pursue formal bankruptcy if the private renegotiation failed. In addition, the opportunistic behaviour of creditors may prevent private arrangement to succeed.

The Bank of Thailand devised the Corporate Debt Restructuring Advisory Committee (CDRAC) since 1998 to alleviate the mounting debt problem from non-performing loans in all business sectors. The main purpose is to convince financial institutions providing loans to Thai business to joint together to assist the debt restructuring process for their debtors. The result is the unified negotiation effort by creditors. They are required to give consent on a joint creditor agreement where guidelines for creditors to negotiate with their debtors are provided. The joint agreement is made to avoid the possibility of rejection among them or preferential treatment of the debtor (Bank of Thailand, 1998).

The participating debtor then has to sign an agreement between himself and the unified group of creditors. This would allow creditors and debtor pursue with a bilateral negotiation for the restructuring plan rather than a multilateral negotiation as in private workout. Such a simplified negotiation should help them to reach a certain settlement quicker.

Unfortunately, the participating creditors under CDRAC are only financial institutions since they are under direct supervision of the Bank of Thailand. Other creditors, including trade creditors, are not qualified to join a bilateral negotiation under CDRAC. Creditors outside CDRAC are still able to file a lawsuit against the debtor, if they believe that their rights and claims will be impaired from any settlement under CDRAC. The higher the proportion of debt held by non-financial-institution creditors the higher the probability of CDRAC failure. In such a case, any CDRAC attempt would seem to be a waste of time and resources because a very same process will have to be repeated in a formal bankruptcy anyway, unless there was a special clause to enforce agreement from CDRAC without an extensive hearing in bankruptcy.

Nevertheless, joint creditor agreement and creditor-debtor agreement cannot be enforced under legislation. They are simply contracts that bind parties by good faith. Creditors and debtors are assembled together because of their objective to deliver a timely rescue to the businesses in distress. Again, the CDRAC initiative is very prone to collapse if someone in- and/or outside the agreement launches legal action against the debtor.

Evidently, the success rate of CDRAC initiatives is very high. Approximately 80 per cent of companies in distress had been successfully restructured by the end of 2001.[19] This empirical finding confirms our hypotheses about the behaviour of creditors and debtors: i) companies in Thailand are highly reliant on debt financing; ii) there are close relationships in Thai businesses – personal and business linkages are intertwined; iii) there is a high potential for reaching a settlement.

It could be also deduced that companies which failed in CDRAC suffered from i) disassociation among creditors, potentially by trade creditors and other non-financial institution creditors, possibly due to the high proportion of creditors outside CDRAC and/or opportunism of creditors, ii) haggling and opportunistic behaviour by the debtors' management, or iii) widespread concern about the debtor's future prospect, or the combination of them.

One crucial fact about negotiation under CDRAC is proof for debtor's insolvency is not required. This could make the transition between two processes difficult if bankruptcy is later needed. We discuss how organised tribunal and formal bankruptcy are interrelated and how it could be exploited to benefit the whole bankruptcy system in 6.5.4.

6.5.3. Formal Bankruptcy

When all other attempts to solve insolvency have failed, the company will be faced with formal bankruptcy. After the first amendment in 1998, reorganisation was added to the procedure.[20] However, liquidation and reorganisation were effectively separated. Although they are in the same legislation, the entry to and exit from the procedures are independent. A petition for reorganisation is not the same for liquidation. Similarly, release from reorganisation is different from release from liquidation. More importantly, the failure of reorganisation does not automatically trigger liquidation. It depends on the discretionary judgement of the court.[21] The management of the debtor would resume operations and creditors would need to file another petition for liquidation.

[19] The data from the Department of Commercial Registration, Ministry of Commerce revealed that there were approximately 592,000 registered companies at the end of 2001. Bank of Thailand's CDRAC announced, for the same period, that it has successfully restructured 476,137 firms. Hence, the success rate is approximately 80.43 per cent if we presume all firms were in distress.

[20] BA 2543 Section 90/1 – 90/90.

[21] BA 2543 Section 90/48 (during plan approval), Section 90/58 (Court's disagreement with the approved plan), Section 90/68 (failure to appoint a new plan administrator), Section 90/52 (Court's refusal to appoint the new plan administrator), and Section 90/70 *bis* (Court sees liquidation must be ensued).

Before 1998, Thai bankruptcy law had no clause for reorganisation; every insolvent company had to be liquidated. This implies the strict, harsh, and management-replacing nature of the Thai bankruptcy system. Nevertheless, the incentive for self-governance was not always sufficient because often the debtor's incumbent management intrinsically believed the problem could be solved easily by personal contacts.

Therefore, the introduction of reorganisation into the bankruptcy procedure could eventually further dilute the *ex ante* incentive for good self-governance of the debtors' management because there would be a higher possibility for regaining corporate control. But, from the efficiency point of view, the inclusion of reorganisation should assist and improve the *ex post* efficiency of debtors' asset disposal especially if it is worth continuing the business rather than pursuing liquidation.

Unfortunately, it is apparent that the split between liquidation and reorganisation could reduce considerably the threat of losing the company control borne by the debtor's management. At least a substantial delay can provide significant benefit for incumbent management. Despite the fact that liquidation and reorganisation requires the proof of debtor's insolvency, there is no economic rationale to have a separated line of enquiry. Liquidation and reorganisation are just different deployment of debtor's asset. Bankruptcy procedures should, once the debtor is insolvent, dictate either reorganisation or liquidation. When the earlier one has failed, the latter must be instantaneously ensues.

Moreover, it was deduced previously that commencement of bankruptcy is the result of extreme disagreement among creditors as well as between creditors and debtor. Providing financial institutional creditors are co-operative (as seen by the success rate of CDRAC), the core problem lies between other creditors and the debtor. The evidence confirms our conjecture: approximately 41.30 per cent of companies applying for formal reorganisation have already reached an agreement under CDRAC.[22]

6.5.4. Relationship and Separation between CDRAC and Formal Bankruptcy

It is crucial for us to consider how two regimes are related. They are solving the same problem under different settings. Since CDRAC must be done before bankruptcy starts, it can provide some information that benefit bankruptcy. Circumstances surrounding CDRAC

[22] Our sample includes 166 companies in a formal bankruptcy procedure seeking reorganisation. 64 of them had assented upon the agreement in CDRAC successfully.

renegotiation convey information about creditors as well as the debtor that could facilitate the progress of formal bankruptcy.

How They Are Related

Creditors who are not financial institutions were left out from the CDRAC initiative because they are not legally subject to supervision by the Bank of Thailand.[23] From their perspective, non-CDRAC creditors[24] could certainly take legal action if they were not convinced that the CDRAC agreement would not harm them. If, however, there are only a few non-CDRAC creditors, it is easy for creditors in CDRAC to convince non-financial institution creditors not to do so, particularly when they are debtors of these banks. CDRAC creditors may persuade non-CDRAC creditors by continue to repay their debts in full, as if the debtor were solvent. Alternatively, when non-CDRAC creditors are also debtors of the banks (CDRAC creditors), banks can indirectly threaten them not to take any legal action against the debtor – for instance, by tightening conditions for non-CDRAC creditors to obtain future loans, by limiting credit limit, or by giving partial services.

In retrospect, the CDRAC agreement, when it was reached, was based on the fact that all involved creditors are fully aware of the risks of legal action triggered by non-CDRAC creditors at any time. They are also aware of possible agreement breakdown when one of them deflects from the agreement and pursues formal legal action. Subsequently, these imply that

[I] they are sufficiently confident they can convince other creditors not to do so, i.e., by paying trade creditors for exiting unpaid debts; and

[II] they sufficiently trust each other for no deception to occur because, somehow a cartel is formed which will effectively punish deception.

Behavioural Aspect of Creditors and Debtor

CDRAC Creditors

Statement [I] above confirms an ability of financial institution creditors to absorb additional loss when they embark on a rescue and deviation from absolute priority is acceptable. Statement [II] indicates the close relationship and trustworthiness among financial institutions themselves. Because they are engaged in a long term and recursive relationship and they are few

[23] The Bank of Thailand, Thailand's central bank, is an institution that oversees and controls financial institutions. It, therefore, can closely monitor the debt restructuring progress according to agreement.

[24] Non-CDRAC creditors are non-financial institution creditors.

in number, deflecting from an agreement is not profitable in the long run. Short-run deflection may be tempting but not worthwhile in the long run.

On the contrary, financial institution creditors' perceived risk of legal action, which might be triggered by outside creditors, is diminished due to the reduced severity of bankruptcy after reorganisation has been introduced – i.e., changing from 'liquidation only' to 'reorganisation or liquidation,' or 'reorganisation-and-then-liquidation (if reorganisation is failed).' Because of this, creditors qualified for CDRAC may strategically use the process for their own benefit at the expense of outside creditors. This would amount to real *forum shopping* whereby financial institutions can choose between negotiating in CDRAC and in formal bankruptcy to maximise their returns. Their ability to choose between two regimes may be *ex post* efficient but it *ex ante* affects the preference of non-CDRAC creditors.

Debtor

It is unlikely for the debtor to use CDRAC strategically because formal bankruptcy, either reorganisation or liquidation, can be commenced at anytime by a creditor who does not agree with CDRAC. However, the separation between CDRAC and formal bankruptcy creates an incentive for the debtor to be more aggressive in any CDRAC negotiation. The debtor may try to raise its stake in CDRAC at the expense of creditors knowing that there is still another chance to renegotiate in bankruptcy. To achieve the agreement in CDRAC will be more difficult.

Collusion in CDRAC

Despite the fact that the debtor has no incentive to delay by engaging in CDRAC, he could collude with CDRAC creditors. Collusion is a preferential treatment to CDRAC creditors at the cost of non-CDRAC creditors. Collusion is not easily sustained and many conditions need to be fulfilled. First, collusion must be implemented given the hindsight of reorganisation provision. Second, colluding creditors (from CDRAC) must have a similar type of interest or the debt must be of the same nature in order to be categorised in the same class under the law. Most of the time, financial institutions are classified as both secured and non-secured creditors; this deters collusion to a certain extent.

However, the classification of creditor class is very subjective and flexible. If CDRAC creditors are grouped in the same class under reorganisation, the collusion becomes apparent. Then, colluding creditors can vote for a preferred reorganisation plan which may impose an excessive cost on non-colluding creditors, e.g. creditors outside CDRAC (for instance, they may vote for what they had already agreed in CDRAC which did not take into the account non-

CDRAC claims). Evidently, in many cases, the petition for reorganisation is filed together by CDRAC creditors and the debtor.[25] Sceptically, this could indicate collusion.

Non-CDRAC Creditors

Creditors outside CDRAC would resort to bankruptcy if Statement [I] above is not credible. Trade creditors are presumed to be co-operative under CDRAC and may well prefer to remain outside bankruptcy because they do not want to loose their customers within the same industry. They would remain so unless the agreement is preferential to inside creditors or treats them unfairly.

Informational Content of CDRAC Agreement

It is clear that the outcome from CDRAC carries essential information about the behaviour of all participants. Since non-financial institution creditors have no role to play, they cannot initiate nor have a voice in CDRAC. Thus, we can rule out them having unscrupulous intention on the debtor's assets. The outcome of CDRAC has no effect on their preference and behaviour. What is crucial is whether or not the debtor defaults. With default, no matter what the CDRAC agreement is, non-CDRAC creditors have to protect themselves by resorting to an appropriate legal entitlement (bankruptcy or ordinary enforcement). Without default, and no influence from, the CDRAC proposal, they would continue to do business with the debtor (although they might be more cautious about his solvency).

Success in CDRAC could show either collusion between the debtor and financial institution creditors or a *bona fide* agreement by both to resolve the potential insolvency. As long as the debtor is still solvent, there is no need to distinguish between these two possibilities. However, it is certain that if the latter is valid, the chance of filing for bankruptcy becomes significantly reduced. The reason is that creditors outside CDRAC must be sufficiently convinced that the agreement would not be detrimental to their interests. This implies that the agreement must not be a plan to 'default' on non-CDRAC creditors. Otherwise, the default would, in turn, trigger legal action against the debtor and the CDRAC agreement would have to be terminated. Alternatively speaking, outside creditors will be convinced and not launching the legal action if and only if the debtor and financial institution creditors agree to repay their debt in full or other agreeable amount. Knowing this in advance, if the CDRAC agreement is reached from the very beginning, it can be a sign of having collusion.

[25] From our sample, 16 cases out of 55 that succeeded in CDRAC have their petitions filed together by creditors and debtor.

Therefore, the petition for bankruptcy (either liquidation or reorganisation) by the firm that has reached the solution in CDRAC indicates dishonest intention, regardless of the petitioner. The petition seeking reorganisation filed by CDRAC creditors together with the debtor is very likely to result from collusion as does a petition made by non-CDRAC creditors. A *bona fide* debtor's turn-round effort would result in i) a prompt petition for reorganisation, without struggling in CDRAC, if leading creditors (presumably financial institutional ones) and the debtor are not certain they can honour remaining claims of other creditors outside CDRAC; or ii) a CDRAC negotiation and agreement without any petition for reorganisation if they are certain that all repayment to outside creditors can be done.

Embracing CDRAC Agreement in Reorganisation

Providing the behaviour of creditors and debtor prior to the commencement of bankruptcy carries useful information, bankruptcy procedures should embrace such informative indications and use them to improve efficiency. Henceforth, the proper bankruptcy procedure should be conditional on the success or failure in CDRAC.

A debtor that is successful in CDRAC should be treated cautiously in bankruptcy. It is essential to synchronise two regimes in order to achieve most efficient outcome. Otherwise, one should be scrapped. What we would suggest is: once the insolvency has been proved, the CDRAC agreement should be ratified by the bankruptcy court with the provision that the CDRAC involved parties must treat non-CDRAC creditors as if no insolvency has ever occurred throughout the process (non-CDRAC creditors receive full repayment). Processes after hearing up until the approval of reorganisation plan will be omitted. The CDRAC agreement will become a lawful reorganisation plan. All rights and responsibilities are enforced under the bankruptcy law. Note that this will not make non-CDRAC worse off since they are fully shielded against insolvency of the debtor. This is to compel creditors in CDRAC and the debtor to make full repayment to non-CDRAC creditors (if the debtor has already default) or, at least, to continue existing debt contracts with other non-CDRAC creditors as if the debtor were solvent (if the debtor has not yet default) under formal legal recognition (not the exact procedure as reorganisation) (see Figure 6.6). The reason of doing so is to eradicate an incentive to use CDRAC strategically as well as to avoid collusion between the debtor and some creditors. Additionally, it synchronises two schemes to avoid unnecessary delay and redundancy as well as to prevent possible *forum shopping*.

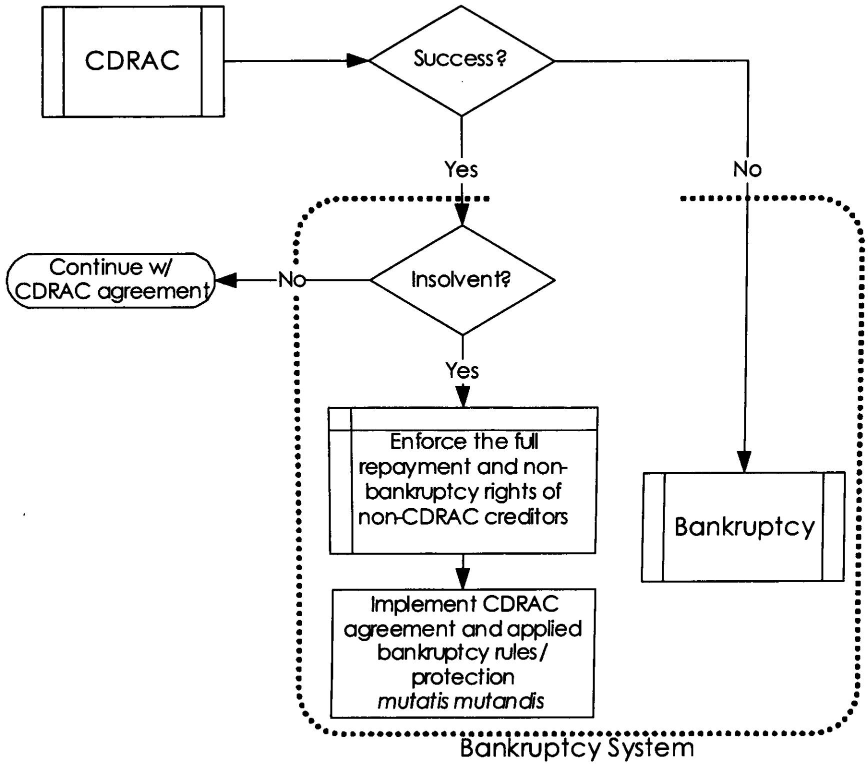

Figure 6.6. Schematic Representation for Incorporation of CDRAC into Bankruptcy System

Compelling CDRAC creditors and the debtor to honour remaining creditors may encompass a technical problem since bankruptcy has an acceleration clause for all claims. Under bankruptcy, all claimants must be identified and the process should manage the proper bankruptcy claims. Implementing a CDRAC agreement in bankruptcy requires special provisions. The court should first prove the debtor's insolvency. Once it is proved he is insolvent, the agreement under CDRAC should be implemented promptly. Automatically, all other remaining creditors should continue to perform according to contracts they have with the debtor as if he were solvent. They are also required to register with the court their original contracts and the amount of debt. Meanwhile, the creditors under CDRAC and the debtor must honour all outside creditors' claims. This would approximate to the UK Administrative Receivership.[26]

Alternatively, as long as the value of the non-CDRAC creditors' claims are not too large, the offsetting mechanism suggested earlier should allow them to conduct a simple bargaining between financial institution creditors and non-CDRAC creditors, helping them to reach the

[26] UK Administrative Receivership is a procedure led by the '*floating charge*' holders. The holders appointed the receiver (not the official receiver) to effect a turnaround of the debtor company. There is no protection for non-appointing creditors (non '*floating charge*' holders). In this proposal, we believe that, if the CDRAC creditors and the debtor are forced to fully respect the remaining creditors, the incentive to collude would be reduced and the agreement in CDRAC will be a result of *bona fide* negotiation.

agreement faster. In addition, the suggested method allows the CDRAC agreement to be easily enforced in bankruptcy because it eliminates insignificant creditors. More importantly, it is possible for CDRAC creditors to trade all other creditors away and proceed with a CDRAC agreement under court supervision. Subsequently, haggling and delays due to the creditors' dispute becomes less severe and the prospective future of the debtor, as seen by its creditors, is more aligned and less dispersed. The proposed mechanism, however, cannot guarantee that the number of creditors will be reduced to the point where the CDRAC agreement could be certainly followed.

Reorganisation

Although there are substantial cases of reorganisation with prior CDRAC successes, the majority remain without. They might join CDRAC but fail or do not participate at all. The petition for reorganisation by different claimants (it could be filed by creditors, the debtor, or both together) carries different information and implications regarding the nature of each case. Each combination renders different but crucial information, which also leads to different implications. Such information is useful for the legislation amendment to improve efficiency.

The failure in CDRAC indicates either an insoluble conflict among financial institution creditors or the debtor's recalcitrant. The former is where bankruptcy is needed most while in the latter it is not. Not joining CDRAC could imply *bona fide* intention by all parties to start a proper reorganisation without wasting time on other workouts or a debtor's attempt to evade legal action by his creditors by seeking protection from bankruptcy. Table 6.1 below summaries all these possibilities.

a) *Creditors*

The petition by a creditor or a group of creditors shows a good sign. It signals the underlying belief of the petitioning creditor(s) that the debtor is worth more alive than dead. Although it also carries information about strong conflicts among creditors (that is why they could not reach the agreement in CDRAC), somehow the petitioning creditor believes the non-CDRAC creditors will be convinced to keep the debtor company operating.

A creditor conflict is vital for this type of petition. Regardless of the involvement with CDRAC especially the petitioner is a financial institution, it is possible that there is a strong dispute with other creditors. Hence, a straight petition is evident; otherwise, finding a solution in CDRAC or private workout must be attempted first (of course, this could fail).

Table 6.1. Possibilities of Participants' Intention to file for Reorganisation

Petitioner	CDRAC Involvement	
	No agreement under CDRAC	*No involvement with CDRAC*
Creditor or a group of creditors	[I] Strong conflict with other creditors (non-petitioning) or debtor dishonesty during the negotiation.	[II] Awareness of non-resolvable conflict between creditors which could prevent settlement in CDRAC. Possibly *bona fide*. No debtor participation. It is possible that the debtor is dishonest.
Debtor	[III] Protect himself and the company's asset from non-bankruptcy lawsuits.	[IV] ← (more suspicious than [III])
Together	[V] Possible collusion between petitioning creditors and the debtor. Their plan probably make the remaining creditors significantly worse-off in CDRAC.	[VI] Probably *bona fide* application with the foreseen difficulties to reach an agreement outside bankruptcy. Too divergent expectation of creditors. The debtor is willing to reorganise.

A petition filed without resort to CDRAC could be also caused by a non-financial institution creditor who is concerned about unfair treatment by an agreement under CDRAC. Therefore, reorganisation is the only option the creditor could pursue to protect her rights and claims.

An absence of the debtor's role in the petition could imply dishonest behaviour to avoid being legally charged and/or an attempt to turn-round the company without the creditors' assistance.[27] It imposes considerable cost on creditors as well as on the economy as a whole. The debtor's management may attempt to invest in an extremely high risk project (or even gambling) in the hope of a tremendous return which could save the company from insolvency and other legal charges.

In this circumstance, reorganisation is needed most. Although there may be no signal from the debtor, there may be an indication of creditors' belief that reorganisation may yield, at least, more than liquidation. Most importantly, intense disagreement between creditors rules out the chance to reach settlement by private workout.

[27] Creditors' assistance may dilute managerial control and the power of the existing executives, close monitoring, and disgraceful 'face loss' for the debtor. These are discouraging and become incentives for the debtor to solve her problem by herself.

We believe the proposed offsetting mechanism can alleviate the conflict. In the event of a breakdown in the process, the forced trading of claims would get rid of 'noisy' creditors who have a relatively small proportion of the claim but remain decisive. Its effectiveness should be significant as long as the debtor company receives its financial services principally from the commercial banks.

b) *The Debtor*

The application for reorganisation made by the debtor is very unlikely to be genuine and unlikely to need a formal procedure. Naturally, the debtor will prefer to do everything to avoid bankruptcy because bankruptcy forces him onto the verge of losing control of the company's assets (i.e. if reorganisation fails). However, the clear separation between liquidation and reorganisation causes the reduction of the threat of losing corporate control imposed on the debtor. This creates an incorrect incentive for the debtor to prematurely nominate himself for reorganisation.

The behaviour of the debtor is very sensitive to institutional and legal structure, particularly in financial distress. The debtor will do everything possible to turn-round the company, including engaging in high risk investments and using legal provisions for its benefit. Therefore, a straight petition by the debtor may indicate the strategic use of reorganisation. If the debtor acts in good faith, he will normally discuss with his creditors beforehand about his financial distress and other alternatives to turn around. Until all other attempts have failed, reorganisation should be the last resort. It is more likely for the case to pass through private workout or CDRAC. Therefore, the petition should be acknowledged by creditors. Hence, it is filed by creditors and debtor together.

Even though this type of petition is unscrupulous, no special treatment should be made because it would distort the debtor's preference to lie about his intentions. For instance, if a more strict and severe procedure imposed on a petition filed solely by the debtor could encourage him to avoid filing a petition and try to seek coalescence with one or more creditors. In general, coalescing with creditors is difficult, particularly for the debtor who has no creditor to file the petition with at the beginning. Such a difficulty might lead to preferential treatment because the debtor must offer something (regarding the claim) to some of the creditors in exchange for having their names on the petition. In the extreme case, this might lead to even greater risk-taking behaviour in an attempt to turn the company round.

On the contrary, the law and the court should retain the clause allowing the debtor to file the petition in order to reveal the real intention for seeking reorganisation. Nevertheless, the court must take special care in monitor the case as it progresses.

c) *Filing a Joint Petition*

For the debtor and creditor(s) filing a joint petition for reorganisation there may be interesting implications. It is assumed that there is some degree of collusion between the debtor and 'some' creditors; otherwise, they would have proceeded with private workout or CDRAC. Empirically, petitioners (the creditors and debtor) always argue that reorganisation is emphatically needed to ensure conformity with all the other creditors.

Bankruptcy is needed in Cases [I], [IV], and [VI] (see Table 6.1) It can be presumed that these cases reflect the belief that reorganisation is the efficient choice. Others suspect a deceitful use of reorganisation. Debtors' petitions are likely to be an untruthful act considering the fact that Thai businesses are closely related and the relationship between the debtor and his creditors is largely long run.

Since the settlement in private workout or CDRAC should be the first-best outcome for all creditors, as long as the bankruptcy cost is sufficiently high, there is no incentive for any of the parties to deviate. As long as all they are generally attempting to turn-round the ailing debtor company, every creditor will follow the settlement, unless there is something to alter their preference. Creditors are unable to alter because the settlement offers them the minimum loss from the debtor's estate. The only player who could influence the game is the debtor. The debtor might be able to give some creditors preferential treatment in exchange for the higher possibility of not losing control of the company. Consequently, such preferential treatment would reduce the loss to an agreed creditor at the expense of the others. This could give rise to collusion between the debtor and some creditors. The debtor must choose to approach creditors carefully otherwise the collusion would be detected and a formal procedure would follow. Outside reorganisation, the collusion could be limited to a small number of creditors to avoid the risk of being detected. In reorganisation, colluding creditors can form a class of creditor and become the pivotal part in the process.[28]

This argument is applicable to the prompt case (directly seeking reorganisation) as well as the case which has gone through CDRAC (either success or fail). The worst-case scenario must be the case where agreement in CDRAC has been reached but the application for reorganisation is still made. In contrast, the scenario where the application is made with good faith is the one that already failed under CDRAC because it is apparent that, to a certain extent, the conflict is too severe and that negotiation in private and/or under CDRAC is unable to achieve the solution. While the latter needs a prompt procedure to preserve the company's

[28] The Law requires the classification of creditors based on the nature of their claim and all approval in reorganisation must have the majority vote from each and every class of creditors and no disapproval from any class.

value, other cases are subject to more scrutiny as they might use reorganisation for strategic purposes.

Liquidation

Liquidation is the procedure where the existence of the debtor company will be ended. All assets would be disposed of and all realisations would be distributed among creditors according to their claims and the prescribed bankruptcy rules. Liquidation is the fundamental process of bankruptcy and is applicable to both the individual and the company.

a) *Debtor*

Liquidation is, definitely, the last choice for the debtor. A debtor will do anything trying to avoid liquidation. With only liquidation, even on the verge of insolvency, the debtor management may invest in a high risk investment in order to capture an upside return. Although it is *ex ante* efficient, it would be *ex post* inefficient because the debtor has no other alternative. As a result, there would be more risk-taking behaviour. The debtor has nothing more to lose from such action, but creditors would suffer more loss if insolvency actually happened. Additionally, *ex post* inefficiency arises when the company might be worth more alive than dead but liquidation would terminate the company existence, the disposed company assets would be inefficiently utilised.

Such an attempt would be less likely if reorganisation is possible because the debtor would be less desperate in distress. Inclusion of a reorganisation procedure into bankruptcy would significantly improve *ex post* efficiency as the debtor would be less destructive by being less attracted to high risk when he is still solvent. Also, reorganisation could improve *ex post* efficiency by allowing the company assets to be realised at the highest valuation.

However, the choice of bankruptcy procedures allows the debtor to bargain with his creditors. The downside of reorganisation is *ex ante* inefficiency on the debtor's risk-taking behaviour. Reorganisation could shift the risk-taking preference from 'gambling' in a distress period to 'gambling' in a non-distress period, because the overall threat of losing the company is reduced and taking additional risk might give more benefit to the management. The final effect is rather ambiguous for it depends on how reorganisation encourages more risk during the non-distress time and discourages it in distress time.

Analogously, *ex post* efficiency would also be adversely affected from the introduction of reorganisation. The procedure might allow the inefficient company (which should be liquidated) to continue through reorganisation. It is worth noting that, if the Law requires the automatic launch of liquidation after failure of reorganisation, there would be an efficient company (that should be reorganised) liquidated. The threat of being erroneously liquidated by the bankruptcy process would compensate for the attractiveness of risk-taking opportunity in non-distress time. In contrast, if the Law takes liquidation as a separate process (discharge from reorganisation due to its failure would return all parties to their *status quo*), there would be no liquidation of the company that could be reorganised. Nevertheless, the tendency of risk-taking behaviour of the debtor in a non-distress period remains. It also gives a distorted and biased incentive toward reorganisation (discussed in Chapter 5). Again, the ultimate effect is ambiguous, depending on how much the error of bankruptcy would be by allowing efficient companies to be liquidated and by allowing inefficient companies to be reorganised.

Nevertheless, the trade-off between *ex post* and *ex ante* efficiency is apparent here as well as the interaction between incentives before and after distress. The introduction of reorganisation might allow bad companies to survive through the process. This would in turn encourage other companies (with no problem yet) to operate inefficiently because they would know that they have an opportunity to get away with bad management. With liquidation and reorganisation separated, there is more chance for inefficient firms to survive as liquidation becomes less possible and, hence, the threat is reduced. Noticeably, *ex post* efficiency is impaired because too many companies survive including the inefficient ones. As a result, *ex ante* efficiency could be further weakened by enhancing even more the attractiveness of risk-taking during the non-distress period.

If liquidation and reorganisation are unified into a single bankruptcy and the failure of reorganisation triggers the commencement of winding up, the incentive for the debtor changes. *Ex post* efficiency is again impaired but from the opposite source. Too many companies might be wound up if they fail from reorganisation, even they are potentially recoverable. However, such a threat of being unjustly liquidated would counteract the attractiveness of risk-taking and improve *ex ante* efficiency.

Apparently, the bankruptcy system with integrated liquidation-reorganisation is *Pareto* superior to the one with separate liquidation and reorganisation. It is also a Pareto improvement to the liquidation-only regime. *Ex post* inefficiency of liquidating an efficient firm in a 'liquidation only' regime remains but it may be alleviated due to reorganisation. *Ex ante* efficiency might be weaker than the liquidation only system. Considering the case of Thailand, prior to the inclusion of reorganisation, the tendency of preferring high risk already existed amongst Thai companies. The most plausible explanation is a 'too harsh' procedure (liquidation only) could induce very high risk-taking behaviour by the incumbent management at a time of distress for they would know that the company could be dismantled (Kahneman and Tversky, 1979) – instead of a careful turnaround.

b) *Creditors*

The view of creditors on liquidation could be different. Some creditors prefer liquidation and others do not. Secured creditors have a tendency to prefer liquidation, particularly when the security value is constant or declining over time. On the other hand, creditors who prefer reorganisation are those without securities: unsecured creditors, trade creditors, and creditors with securities of low and unstable value. They presumably would get nothing in liquidation.

We would argue that this is relevant only when the relationship between debtor and creditors is considered as a one-off contract. In the eye of the law, every debt contract is one-off. However, in practice, such a contract could be recursive and part of a long-term relationship between lender and borrower. When one debt contract is terminated, it does not mean that both parties just walk away; it is highly possible that they may enter another contract, providing the transaction cost of finding a potential lender or screening a potential borrower is sufficiently high. This is particularly true in the context of Thai business.

With reference to Thai business practice, most creditors will have established a long-term relationship with their debtors. Such relationships might be business, family, or a combination of both as discussed earlier. Therefore, it is very unlikely for a particular lending-borrowing relationship to be one-off. Subsequently, the behaviour of creditors on liquidation cannot be over simplified.

Creditors who prefer liquidation should be those with securities who do not have a long-term relationship.[29] Most of long-term creditors, subsequently, would incline toward reorganisation. Many of them hold the securities whose its value is much below the face value of the loan granted to the debtor.

Regarding the efficiency of the bankruptcy system, liquidation included, our suggested mechanism of debt offsetting should play a role in minimising *ex post* inefficiency in preventing efficient companies from being liquidated unnecessarily and reducing the number of inefficient firms getting away with reorganisation. Offsetting allows the trading of claims, and even forces creditors to trade in the event of deadlock, which would, consequently, delegate decisions about the future of the debtor into fewer hands (of creditors). Hence, the dispersed creditors' beliefs on the future of debtor, which may prevent reorganisation, would be reduced. It could also help to reduce the incentive of collusion between the debtor and some creditors.

[29] Obviously, in the Thai context, the security may no longer be relevant after the relationship has existed for some time. Only when they do not know each other, could security or collateral be helpful and carry information on the debtor's trustworthiness towards creditors.

Connection between Personal and Corporate Bankruptcy

From the beginning, our analysis has been restricted to corporate insolvency without considering the role of personal bankruptcy. However, as companies in Thailand have a high ownership concentration, the owner or founder is usually the one who retains sole or major control over the firm (directly or indirectly). It may be deduced that the owner would be rather 'possessive' of his company, i.e. become highly emotional at the threat of losing his company, unlike his western counterparts. One piece of evidence is that it is common practice in Thailand for the owner of a business to use his personal wealth to guarantee or secure a loan from creditor(s). This should give the incentive to manage the firm efficiently. If the company fails and enters bankruptcy, the owner as a guarantor may be declared bankrupt by personal bankruptcy.

Unfortunately, this mechanism has been recently altered. After another amendment in 1999, the owner or manager of insolvent company who has been declared bankrupt due to a debt guarantee can request the court to release him from his bankruptcy after 5 years.[30] This provision dilutes the incentive for the owner manager to exert sufficient effort to run his company efficiently if such effort is costly. It also imposes more cost on creditors and undermines the reliability of personal relationships. This will result in a more sceptical loan assessment. *Ex ante* efficiency is further deteriorated.

Another indirect implication from this amendment is that Thai business persons are influencing on the law making process of the government to a certain extent, reinforcing our hypothesis about the *patron-client* relationship (see Figure 6.1.).

6.6. External Intervention and Integrity of the Bankruptcy System

The smooth and continuous functionality of the bankruptcy system is desirable. If possible, it should be operated in isolation, away from all external influences, following the rules of law and evidences. In reality, it is very difficult, if not impossible, for the bankruptcy system to be in such environment for those in authority must be related with non-authorised people somehow. So, there are mainly two possible interventions that could affect bankruptcy procedures: influential persons and government.

[30] BA 2543 Section 68 and 71.

Influential Persons

Influential persons (*puu me ittipol*) refer to those who are highly respected by a majority of Thai people. In the context of 6.2.3, they are those who make a majority of Thais feel '*kraengjai*.' Under the notation of *patron-client* relationship, these people are of a *patron* class. They are not the same as Italian *Mafia* or Japanese *Yakusa.* Some of them might be very similar; some others may be miles different and have done nothing illegal or harmful to anyone. They became influential by their birth status[31] (being related with royalty or born in nobility), their charisma, their rank and duty (authority or power), or by their behaviour (helping others). This structure is applicable to all aspects of Thai life and not confined to the business practice. All Thais are exposed to this extensive network of connections and Thai reciprocity. As discussed earlier in Chapter 3, companies, as a practice, appoint influential persons to be members of the board or even the chairman.

The debtor company with influential persons as its executives is believed to be capable of affecting the decisions in the bankruptcy procedure. They can establish private talks with creditors to make a deal outside bankruptcy (i.e., with a non-pecuniary side payment). They can press the creditors to vote for the reorganisation plan, for instance. Moreover, influential persons might be able to compel authorised personnel in the bankruptcy process to give them preferential treatment. In very extreme cases, such influential persons might be able to force the government to act according to their wishes. We presume these companies with influential persons can obtain a favour in reorganisation more easily than others.

Government Intervention

Since the implementation of a revised Bankruptcy Act in 1998 and 1999 to include the procedure for reorganisation, the bankruptcy system has been operating relatively independently and free from political or business pressure. Although there were amendments, the establishment of new institutions to help the system function, and some movement for further amendments. None of these apparent changes has altered the functionality of the system.

However, there are some major companies which could not proceed with reorganisation smoothly. It has been observed that the delays have been caused by the haggling problem

[31] Thais believe that those who were born in royalty or in noble families have done many good things in the past (previous life). That is why they have been reincarnated in a good place for their current lives.

caused by the incumbent management and owner. The government recently decided to intervene and resolve the problem by using public funds to bail out the company whilst restricting the claims of creditors, particularly foreign ones. The government defended its action by mentioning that "Thai companies must be owned by Thais, not foreigners," which is not relevant to the context of bankruptcy at all. There is further evidence that unveils the close personal linkage between the owner of one debtor firm and the Prime Minister (Bangkok Post, *various issues*; Prachachart Turakit, *various issues*).

The swift action of the government caused considerable repercussion on the bankruptcy regime. Creditors were most affected, particularly foreign ones. Most of the players, however, are becoming more active but outside the bankruptcy rules. The pressure has now moved onto the government itself and many players have tried to influence government action in the way they want but without any prescribed rule.

Such intervention would send the bankruptcy system into disarray because it would give the wrong signal to the debtor. The government has now signalled it would intervene to help the debtor if there is no progress. The debtor would, therefore, prefer to clash with creditors and delay the whole process. Debtor would be more aggressive, less co-operative, and less concerned about the long-term relationship with creditors. By and large, government intervention in this manner drastically shifts the preference of the debtor, from being co-operative to being non-cooperative.

Creditors are the obvious casualties of this intervention. They can foresee the huge losses looming. Consequently, an *ex post* loss would cause creditors to be more restrictive on lending, impose more credit rationing, and exacerbate the relationship with their debtors as well as emasculating the establishment of relationships with potential debtors in the future. As the information cost of borrowing-lending relationship is expensive, prospects for the credit market are worsening as the less-than-arm's-length relationship in Thai context – acting as a tool to reduce the transaction cost –deteriorates.

It is crucial for the bankruptcy system to have stability and integrity in order to operate efficiently. This kind of government intervention just simply undermines the authority and the incentive scheme the Law provides. Moreover, taking into account the anticipation of debtors and creditors, once the government has done this – even only once – they could expect the government to do this again, sooner or later, when the situation is really bad, sooner or later, until the government lets at least one company to fail. Non-intervention is the best policy for the government. Amendments of legislation or procedures are adequate and preferable. Such changes must be universal and applied to every case, not just a particular company.

6.7. Bankruptcy Law Harmonisation and Standardisation: Possibilities and Limitations for Thailand

Apart from an amendment to include reorganisation, Thailand's bankruptcy system also aims to make an international effort for bankruptcy law harmonisation led by UNCITRAL (United Nations Commission on International Trade Law) as appeared in UNCITRAL Model Law on Cross-Border Insolvency with Guide to Enactment (UNCITRAL, 1997; Business Reorganisation Office, 2003). In addition, there is a comparable effort by the World Bank to achieve similar standardisation of cross-border bankruptcy under World Bank Insolvency Initiative (World Bank, 2002). According to both sources – with their extensive documentations, their objectives are compatible and the models of their 'ideal bankruptcy law' have incorporated many economic efficiency concepts, particularly to maximise the value of debtor's estate, to dispose of it at the highest valuation (through liquidation, reorganisation, or other disposals), and to redistribute realisation to creditors in the most efficient way. Harmonisation would definitely reduce legal impediments on international borrowing and dispute settlement when insolvency has occurred. It allows the international flow of funds to the highest valuation without being deterred by complexity of legal differences across countries. Higher economic efficiency could be the result.

Characteristics of lending-borrowing activities vary across the globe depending on different institutional frameworks and environments, especially property rights protection and business conduct. In the absence of bankruptcy law, subsequently, economic agents respond to the insolvency problem differently. Moreover, since the real causes of insolvency are wide-ranging, there will be a specific cause of insolvency in a certain jurisdiction which differs from others. Hence, even under a same rule of insolvency procedures, these agents would unquestionably react to enforcement differently. Although goals and concern of harmonisation and standardisation with respect to economic efficiency are welcome and desirable, it is worth noting that there is no such thing as a 'silver bullet' in the form of a single comprehensive bankruptcy law that could solve all relevant problems of insolvency for every single economy. What is vital is the means to achieve those goals. Nothing, apparently, can guarantee that a single model of standard legislation will prove universally effective. Striking the proper balance between several objectives is not an easy task because an underlying insolvency problem varies from country to country (Stiglitz, 2001). Thus, bankruptcy legislation shall be specific to the economy, not universal.

With reference to Thailand, from the outset, we can see that lending-borrowing behaviour is significantly different from other economies. The decision to lend relies heavily on personal relationships and networks of personal contacts rather than on credit assessment. If there was any legal requirement enforcing or encouraging the use of credit assessment, the practice would likely be wasteful and ineffective because all parties will just do it to comply with the law but fundamentally keep to their old practices. Monitoring during the course of borrowing is rare and passive since it is an honour system based on trust and reciprocity resulting in debtor self-discipline, despite the fact that it is also very prone to opportunistic shirking. Any legal encouragement of active monitoring and/or discouragement of self-disciplinary effort through personal contacts would undermine the positive benefits of such personal trust. Debtors would shift their preference away from self-restraining to being more opportunistic. This would later cause a rise in monitoring costs borne by creditors which would further adversely affect creditors' *ex ante* behaviour on lending. A proper balance between active and passive monitoring is necessary and it could vary across economies depending on the relative strength of the monitoring practice.

When default has occurred, normally the debtor would try to renegotiate with his creditors through the network of contacts. If the law intervenes too early, their possibility of reaching an agreement without resorting to the law is reduced. Too late an intervention would be disastrous as well since infinite renegotiation would leave little value to be rescued. Analogously, if the law offers either debtors or creditors relatively more attractive outcomes than they would get in private workout, the incentive for private workout would be lessened and *vice versa.*

The balance of an appropriate intervention of bankruptcy law and the balance of pre- and post-bankruptcy returns are crucial. Again, this depends on financial structure of firms, the concentration and distribution of creditors – their types and the nature of their claims, the relative bargaining power of all claimants – and the cultural attitudes to solve financial distress, which are all vary across firm and economy. For an economy with low activity of private workout/high reliance on formal bankruptcy, a relatively earlier commencement of bankruptcy would be beneficial. If claimants were allowed to prolong negotiations, an adverse consequence may ensue as a firm may be left with no value to be rescued. On the contrary, for an economy with relatively high numbers of private workouts, a relatively sooner resort to bankruptcy is detrimental. Claimants would no longer have an incentive to do informal renegotiation which may prevent an opportunity to attain a better outcome than the one from formal bankruptcy. A company with only few large creditors is more likely to settle with private agreement than a company with many small creditors or with few large creditors and many small creditors where formal bankruptcy is more desirable. A similar argument is applicable to the redistribution of realised value to all creditors.

Therefore, it is obvious that the idea of single universal bankruptcy law is not practical and, consequently, would do more harm than good. A universal, harmonised bankruptcy law could distort *ex ante* and *ex post* incentives to achieve efficiency in some economies. Instead legislation must be tailored to suit the institutional environment of an economy it is operating in. Since the responses of economic agents on a particular stimulus differ from one economy or jurisdiction to another, the outcome of legal enforcement may be desirable in one economy but unfavourable in another. Unfavourable side effects may far outweigh the benefits from having cross-border compatible legislation. This argument also implies that legislation should be constantly reviewed and updated as necessary to reflect the underlying economic fundamentals. The basic concept of efficient bankruptcy legislation, however, remains valid and applicable.

Mentioning an economy or jurisdiction does not imply actual borders between countries but it does refer to the fundamentally different business practices particularly on borrowing. A single bankruptcy law may be effectively used by more than one country as long as they are having similar economic fundamentals and economic agents are more or less identical in their behaviours. Countries with similar business practices may adopt a very similar or identical bankruptcy law because the implementation of the law would be compatible. Member states under economic co-operation or integration with similar characteristics of business practices could implement a harmonised insolvency law. In an extreme case, if all economies in the world were converging, under globalisation, on their business practices and having indistinguishable characteristics in every aspect of borrowing activities, a universal insolvency law could be fully implemented without any side effect discussed above.

What crucial is how debtors, creditors, and all other claimants of firm respond to the problem of insolvency. Their responses depend on how they are doing their business – in other words, how they lend and borrow from the very outset before the debt contract is agreed to the end of their debt contracts as well as the recurrence of similar contracts. As long as they are behaving differently across the world, tailor-made bankruptcy legislation is superior to a universal one.

6.8. Concluding Remarks

This chapter examines the behavioural aspect of creditors and debtor involves in insolvency under different institutional settlements. We discover that it is essential to understand the underlying fundamentals of an economy, particularly on how borrowing is conducted and how insolvency is solved without bankruptcy legislation, before designing proper legislation. Different ways of borrowing implies different legal treatment in order to achieve economic efficiency.

It is clear from the beginning that the Thai business practice is a kind of institution which both supplements and substitutes the market mechanism in various business transactions. Borrowing is also influenced by this practice where the personal, less-than-arm's-length, relationship involved. We could consider personal connection as the tool to reduce the transaction cost of engaging into lending and borrowing, similar to the use of security or collateral.

However, its effectiveness is limited. As a company is growing in size and transaction volume and the change in managerial framework, an incentive to prevent the debtor management to behave opportunistically is reducing. At the same time, it reduces incentive for creditors to monitor due to personal trust and contradiction between personal etiquettes and business practices (i.e. monitoring implies impolite treatment – it is justified for monitoring in a business context but not in a personal relation). As a result, the actual cost of risk-taking is virtually suppressed and preferences of debtor management/executives were shifted toward higher risk.

Higher risk implies higher return; it also implies the higher probability of insolvency, if there is no sufficient precaution. *Ex ante* discouragement for excessive risk-taking in order to avoid insolvency is important. Thai businesses have incentives to do so in a form of personal dignity: reputation, trust, and honesty of a long-term relationship. This is very prone to opportunistic behaviour of all parties involved. It is somehow highly dependent on the personal virtue and could not be easily verified, measured, and influenced by any outside institution.

Although with proper precaution, financial distress cannot be avoided with certainty. Any company could be on the verge of insolvency at some point in time. The source of distress could be internal, external, or the combination of both. Internal inefficiency is only source that must be minimised to improve economic efficiency while external shock should be alleviated in order to restore the company competence. Unfortunately, it is costly, if not possible, to identify the actual cause of distress.

Financial distress leads to the problem of default – unpaid debt. Subsequently, it leads to renegotiation of the debt contract: whether or not creditors would allow the ailing company to continue with its business under new, negotiated terms of borrowing. Private renegotiation would succeed if creditors are convinced that the debtor is potentially recoverable. Many factors influence the possibility of recovery.

Renegotiation is generally costly. It involves increasing transaction and negotiation costs that exponentially increase with the number of creditors. High transaction cost lessens the probability of reaching settlement. Economic efficiency would be impaired when a good company failed and when a bad company is survived.

In Thailand's context and arrangement, we realise that private negotiation is not suffering from such rapid increasing transaction cost. Hence, this should be the most efficient way to be employed to solve the insolvency problem. Extensive personal linkages, networks, and families' relationships suppress a rise in transaction costs and allow creditors and the debtor to reach agreement much easier than the Western business practices. Formal forums are relatively unnecessary and not economical, unless there is the deadlock. Many formal and legal arrangements, bankruptcy included, have been invented to resolve the problem of insolvency when private workout does not function well. Evidently, in Thailand, the use of formal bankruptcy is rare.

In the past, Thai bankruptcy law had only the clause for liquidation (an insolvent company must be terminated). After 1998, the amendment included the provision for reorganisation (an insolvent company can be rescued) but there is a separation between liquidation and reorganisation whereby the release from reorganisation does not automatically trigger liquidation.

From the outset, inclusion of reorganisation increases potential improvement of economic efficiency by allowing alternative deployment of insolvent company's assets. Essentially, it does also have an impact on creditors' preferences, as well as the debtor's, before and after insolvency occurred. The debtor becomes less co-operative after insolvency has occurred. There is, in addition, higher possibility for inefficient companies to be rescued at the expense of creditors and the whole economy. It has the effect on non-distress debtors' preference towards risk – debtors are becoming more risk-taking. These are most damaging consequences on economic inefficiency arising from reorganisation.

An optimal bankruptcy procedure, in practice, can hardly be achieved. It is required to have an appropriate balance between *ex ante* and *ex post* efficiency that usually not coincided. A step closer to one type of efficiency is always attained at the expense of another. The degree of appropriateness is dependent on the nature of business in that jurisdiction too – *ex ante* and *ex post* opportunistic behaviours of every agent. Furthermore, the bankruptcy law must be suitable with business practices of economic agents where it would be implemented.

Based on the fact that Thai businesses are having less-than-arm's-length relationships that built on the extensive network of connections, and limited number of commercial banks, which is the core of borrowing-lending activity, we believe the debt-offsetting mechanism suggested in this Chapter could be useful and appropriate with circumstances in Thailand. Its procedure is similar to Bebchuk's (1988) in the concept but different in practice. It allows the trading of debt claims amongst claimants. Instead of using the debt-equity conversion, which may involve a complicated and disputable formulae, and the trading of equity (converted from debt) (see Chapter 4 for more detail), our proposed mechanism reduces possible disputes that may occur during the conversion and does not cause the reluctance of creditors' choice between debt and equity. The conversion of debt into equity will dilute relationships amongst creditors particularly any creditor who, at the same time, is a debtor to another creditor. In addition, creditors may be reluctant to hold equity instead of debt since they prefers debt to equity at the time they made a decision to lend. The mechanism focuses on the pivotal role of financial institutions for the trading of debt because of the limited number of financial institutions and linkages among them. This would allow, to some degrees, more correct (less diverse) decision on the choice of the procedure. Because of highly intertwining interests among creditors and some creditors owe others (mainly financial institutions) some money, the trading of debt claims would eliminate small creditors from the bankruptcy procedure and only large creditors would make the decision about the debtor's fortune. This mechanism, instead of being used voluntarily for a certain, limited period of time, could be implement on a compulsory basis if there is an impasse. It could act as an additional threat for those creditors who are opportunistic and not co-operate with others.

The most desirable solution for insolvency is the one with lowest cost, shortest time, and lowest inefficiency – *ex post* and *ex ante*. With the reference to Thai business context, private workout is the most promising process to reach the solution. However, the excessive transaction cost may inhibit such possibility and thus other procedures are needed. Formal bankruptcy should be the last resort and should not be used unnecessarily and opportunistically by involved parties because that would undermine economic efficiency. Despite the fact that usage of bankruptcy is rare and majority of financial distress is resolved privately, it does not imply that bankruptcy legislation is not relevant nor it should be removed. It is needed in order to impose threats and reserve values on all claimants allowing them to see what they would finally get if private workout fails.

An attempt to standardise or harmonise bankruptcy laws across countries or an adaptation of bankruptcy law from other countries could reduce economic efficiency. The bankruptcy law in each country must be tailored to correctly respond to its economic fundamentals, particularly how lending-borrowing relationship functions as well as behaviours of creditors and debtors under different financial circumstances. Creditors and debtors may behave differently in lending-borrowing relationships especially when they are trying to resolve financial distress or debtors' insolvency. Thus, imposing the same law to two different jurisdictions may yield different outcomes. It is essential to understand the underlying business reality before designing an optimal bankruptcy law of each country. However, if several countries that share similarity in their business practices, the adaptation of one country's legislation or the harmonisation of their bankruptcy laws will have insignificant effect on economic efficiency.

Appendix to Chapter 6
Creditor's Ability to Absorb Risk

This appendix examines the ability of creditor to absorb the debtor's insolvency risk by using the simple portfolio theory. It is achieved by introducing the new potential debtor asking for the certain amount of loan. Forcing the creditor to maintain the same level of risk, the determinants of ability of absorb the risk are analysed.

The simple portfolio P containing two assets, A and B, would have the return and risk as follow.

$$r_p = \alpha r_a + (1-\alpha)r_b, \tag{6.1}$$

where r_p is the return of the portfolio,
r_a, r_b are the return of the asset A and B respectively,
a, $(1-a)$ are the proportion of A and B respectively;

$$\sigma_p = \sqrt{\alpha^2\sigma_a^2 + (1-\alpha)^2\sigma_b^2 + 2\alpha(1-\alpha)\operatorname{cov}(r_a, r_b)}, \tag{6.2}$$

where σ_p is the standard deviation of the portfolio's return,
σ_a^2, σ_b^2 are the standard deviation of A's and B's return respectively
$\operatorname{cov}(r_a, r_b)$ is the covariance between A and B.

Assume the lender has the portfolio of various investments, loans of various borrowers included, D. For the portfolio D, it associates with the return R_d and the risk (or standard deviation) σ_d. Further assume that D comprise of α portion of risk-free asset (with a return of r_f and no risk) and $(1-\alpha)$ portion of risky assets, including loans and other instruments (with a return of r_r and risk of σ_r). The return and risk of D could be illustrated below.

$$r_d = \alpha r_f + (1-\alpha)r_r, \tag{6.3}$$

$$\sigma_d = \sqrt{a^2\sigma_f^2 + (1-\alpha)^2\sigma_r^2 + 2\alpha(1-\alpha)\operatorname{cov}(r_f, r_r)}. \tag{6.4}$$

Since the risk-free asset has no risk, we obtain

$$\sigma_d = \sqrt{(1-\alpha)^2\sigma_r^2 + 2\alpha(1-\alpha)\operatorname{cov}(r_f, r_r)}. \tag{6.5}$$

Suppose there is an opportunity to lend to a particular borrower for an amount of I with the return r_i and the risk σ_i, the lender would consider this potential and would lend if the new loan would make the overall, new adjusted, portfolio to have higher return without increasing risk, lower risk without lowering return, or the combination that make the lender indifferent according to her preference.

The lender have to decide how could the loan of amount I be prepared. The lender usually holds the risky (other loan included) and risk-free assets. Let m_1 is the amount from the risk-free asset and m_2 is the amount from the risky asset: $m_1+m_2 = I$. To simplify, let the total portfolio of the lender equal to 1 and then $I \leq 1$ (see Figure 6.7). In the case where the requirement of I is much higher than the available fund from a single lender, we could consider this decision as the consolidated lender led by a certain financial institution.

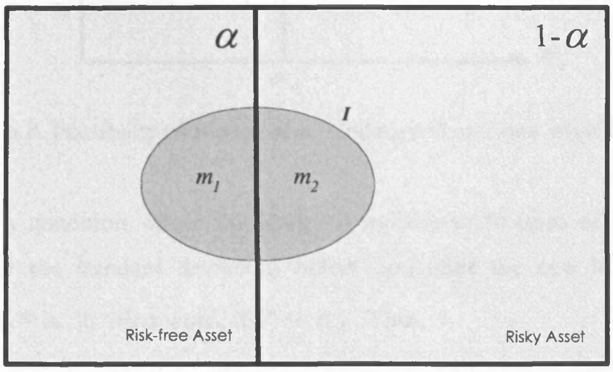

Figure 6.7. Creditor's Portfolio and the Potential Loan

A newly adjusted portfolio N would have two adjustments: one is for the risky asset portion; another one is for the risk-free portion.

$$r_n = (\alpha - m_1)r_f + (1 - \alpha + m_1)r_d', \tag{6.6}$$

$$\sigma_n = \sqrt{(\alpha - m_1)^2 \sigma_f^2 + (1 - \alpha + m_1)^2 \sigma_{d'}^2 + 2\alpha(1 - \alpha + m_1)\operatorname{cov}(r_f, r_d')}, \tag{6.7}$$

where

$$r_d' = (m_1 + m_2)r_i + (1 - \alpha - m_2)r_d, \tag{6.8}$$

$$\sigma_d' = \sqrt{(m_1 + m_2)^2 \sigma_i^2 + (1 - \alpha - m_2)^2 \sigma_d^2 + 2(m_1 + m_2)(1 - \alpha - m_2)\operatorname{cov}(r_i, r_d)}. \tag{6.9}$$

The new, adjusted, portfolio would retain the total amount of 1, comprising $a - m_1$ as a risk free asset and $1 - \alpha + m_1$ (=$1 - \alpha - m_2 + m_1+m_2$) as a risky asset. The return would be $r_n = (\alpha - m_1)r_f + (1 - \alpha + m_1)r_r$.

Considering the return, this newly adjusted portfolio could have higher or lower return depending on the return of the additional loan and the way the lender adjusted the whole portfolio. Figure 6.8 illustrates the possibility of the return under our setting. We would discard the consideration on the return because, if the borrower were insolvent, the lender would have suffered the loss to a certain degree anyway. We concentrate our analysis to the risk of a new portfolio.

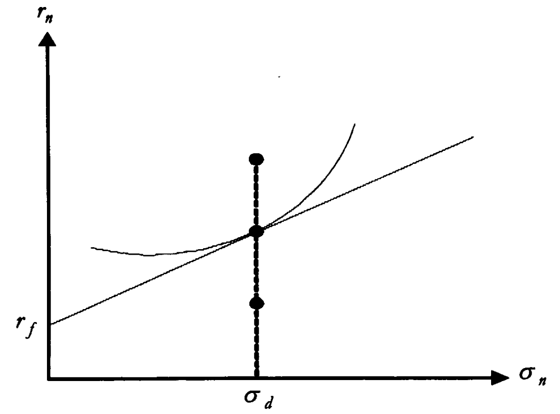

Figure 6.8. Possibility of Return after lending a New Loan while the Risk is Fixed

Next we find a condition where the lender is indifferent in term of risk if the new loan is granted. If the risk (or the standard deviation) before and after the new loan I is added remains unchanged, it requires $\sigma_d = \sigma_n$. In other word, (6.7) = σ_d. Thus,

$$\sigma_d^2 = (1-\alpha+m_1)^2\sigma_{d'}^2 + 2\alpha(1-\alpha+m_1)\mathrm{cov}(r_f, r_d'), \qquad (6.10)$$

since $\sigma_f = 0$.

After the algebraic rearrangement,

$$\sigma_{d'}^2 = \frac{\sigma_d^2}{(1-\alpha+m_1)^2} - 2(\alpha-m_1)\mathrm{cov}(r_f, r_d'). \qquad (6.11)$$

When replace $\sigma_{d'}^2$ with (6.9)[2], we obtain

$$(m_1+m_2)^2\sigma_i^2 + (1-\alpha-m_2)^2\sigma_d^2 + 2(m_1+m_2)(1-\alpha-m_2)\mathrm{cov}(r_i, r_d) = (6.11).$$

As $m_1+m_2 = I$, we can substitute m_2 with $I - m_1$. We could then express m_1 in term of m_2 and I as follow.

$$m_1 = \frac{\left\{\sigma_d^2/(1-\alpha+I+m_2)^2\right\} - I^2\sigma_i^2 - 2(\alpha-m_2)\mathrm{cov}(r_f, r_d)}{2I\cdot\mathrm{cov}(r_i, r_d) + (1-\alpha-m_2)\sigma_d^2} - 1 + \alpha + I. \qquad (6.12)$$

In (6.12), m_1 could be either positive or negative. The implication of positive m_1 is straightforward and $0 \leq m_1 \leq a$, it is the amount from the risk-free asset. For the negative m_1, it implies the adjustment has realised the risky-asset of value more than I and put the remaining of the realisation into the risk-free asset (i.e., holding more risk-free asset).

(6.12) could also express in term of m_1 and I by substituting $m_1 = I - m_2$.

An implication of m_2 is analogous to m_1. The positive m_2 must be confined within the range $0 \leq m_2 \leq 1 - \alpha$. Meanwhile, the negative m_2 dictates that the adjustment has been done by selling the risk-free asset of more than I and then acquiring some additional risky asset (apart from I). Noting that if it is negative m_2, we need to concern about the risk of this additional asset, which would affects the overall risk of portfolio. It would complicate our analysis. Thus, we restrict our concern on positive m_1 and m_2.

Next, we evaluate the situation where m_1 is at its limit. Firstly, we presume that m_1 is zero, subsequently, the investment I must be financed solely by m_2. Thus,

$$m_2 = 1 - \alpha - \left[\frac{\sigma_d^2/(1-\alpha+2I)^2 - I^2\sigma_i^2 - 2(\alpha - I)\operatorname{cov}(r_f, r_d)}{2I \cdot \operatorname{cov}(r_i, r_d) + (1-\alpha-I)\sigma_d^2} \right]. \tag{6.13}$$

On the opposite, if the whole finance is from risk-free asset, i.e., $m_2 = 0$, $m_1 = I$, m_1 would be given by

$$m_1 = \frac{\left\{\sigma_d^2/(1-\alpha+I)^2\right\} - I^2\sigma_i^2 - 2\alpha\operatorname{cov}(r_f, r_d)}{2I \cdot \operatorname{cov}(r_i, r_d) + (1-\alpha)\sigma_d^2} - 1 + \alpha + I. \tag{6.14}$$

Therefore, it could be deduced that the lender could lend an additional loan of I without incurring any extra risk. Subsequently, if the borrower were insolvent, the lender's risk would not be affected. Disregarding the return (which could be indifferent, higher, or lower), this has the implication that the lender could absorb a certain degree of loss in the case where the lender is insolvent. However, it does not imply that the loss made the lender indifferent; she is definitely worse-off.

Notably, the size of the loan that would have no effect on the overall risk, or in our context, the degree of absorption of loss, varies from one creditor to another. The factors which determine how good the absorption are i) I, ii) α, iii) σ_d, iv) σ_i, iv) cov(r_f, r_d), and v) cov(r_i, r_d).

The requesting loan I is obviously a key factor. The larger the I, the less absorption of loss, because it constitutes a larger proportion of the lender's wealth. In other words, the less importance of an insolvent borrower in relation to the lender's wealth means it is less costly for the creditor to avoid such a risk.

α indicates the proportion of risk-free asset prior to the decision to lend I. The higher proportion of risk-free asset implies the higher absorption of insolvency loss. The lender, in other words, has the larger buffer to readjust her portfolio to maximise the return given the risk level.

The risk of the existing portfolio as well as the risk of the new loan would affect the degree of absorption. The greater the risk, the lower the ability to absorb insolvency loss.

Provisionally, we presume that the covariance between the risk-free rate of return and the return on Portfolio D - $\text{cov}(r_f, r_d)$ - is positive.[32] The higher this covariance, the lower the ability to absorb insolvency loss. This is because the difference between the return of the new loan and the return on risk-free rate would be lower and the new loan, as a result, is less attractive. Alternatively, given the risk of a new loan, its contribution on the return on the overall portfolio is less promising.

In the case of the covariance between the new loan I and the existing portfolio - $\text{cov}(r_i, r_d)$, it may have the value ranging between –1 and 1 (i.e. $-1<\text{cov}(r_i, r_d)<1$). The more positive covariance with the existing portfolio indicates the lower the ability to absorb the insolvency loss because the movement of the return of this loan is in the same direction in relation with the existing portfolio. This means when the return of the new loan change, it will change in the same direction as the return on the existing portfolio.

On the contrary, the negative covariance would allow the lender to diversify the risk in relation to the existing portfolio more easily, as this loan would change in the opposite direction to the portfolio. Hence, the more negative of the new loan, the more the ability of insolvency loss absorption. This proves that the lender or the creditor has a certain capacity to absorb the loss from insolvency of her borrower or debtor without affecting the overall risk of her portfolio. It is also apparent that such the absorption is varied from one creditor to another depending on the factors mentioned above. Furthermore, this implies the deviation from absolute priority regime is justified as long as the order of claims and repayment are not reshuffled. In other words, creditors are able to receive the repayment from bankruptcy which is less than from what non-bankruptcy proceeding offers as long as it does not change the order of repayment and the seniority of claims in relation to other creditors.

According to various types of creditor examined previously, it is worth noting the financial institutions have more ability to absorb higher insolvency losses. They have a larger base of asset, possess large proportion of risk-free asset, and ability to select new investment to maximise the return to their portfolio. Financial institutions are in a better position compare to trade creditors in term of choosing the good investment opportunity. They could find the appropriate investment with appropriate $\text{cov}(r_i, r_d)$ because they can lend to various borrowers from different industries. Meanwhile trade creditors could rarely find the negative $\text{cov}(r_i, r_d)$ because most of trade creditors' customers (debtors) are belong to the same industry which make the movement of their returns align within the same direction (positive covariance). Moreover, trade creditors have not so many choices anyway upon the choice of customer. They can just either grant a trade credit or not but cannot be as selective as financial institutions.

In addition, the covariance between a risk-free return and a return on portfolio prior to the decision of lending I should be lower because financial institutions are specialised in risk diversification and, hence, their portfolio should be less related with the return on risk-free assets.

[32] The positive covariance between the risk-free rate and any portfolio indicates by CAPM.

Chapter 7
Empirical Analysis on the Efficiency of Thai Bankruptcy Law

This chapter aims to investigate empirically the performance of current Thai bankruptcy legislation and procedures. At the beginning, the ruling devised by legislation and employed by the Central Bankruptcy Court is analysed. Later the efficiency of bankruptcy law in Thailand is evaluated by finding decisive factors affecting the success or failure of ailing firms in reorganisation. This chapter is organised as follows. Section 7.1 discusses how econometric analysis can help to investigate the efficiency of the Law empirically. Section 7.2 explains the selection of statistical methodology employed in this chapter, followed by a discussion of the data used in the study which includes the source and nature of the data in Section 7.3. Section 7.4 reveals the empirical decision rules of the Central Bankruptcy Court which determine the acceptance of ailing firms into rehabilitation, while Section 7.5 further characterises accepted companies using the panel data. Section 7.7 identifies the factors influencing the reorganisation plan approval by the creditors' meeting. Section 7.8 evaluates the characteristics of the firm that has been successfully reorganised (in other words, it discloses the characteristics of firms that failed). The chapter concludes with a discussion of the empirical findings in the light of the concept of economic efficiency.

7.1. Objectives for the Empirical Analysis

Most empirical research in bankruptcy can be classified into two main groups: one is about the prediction of bankruptcy – whether the company would be insolvent at a certain point of time (Altman, 1968; Beaver, 1966; Deakin, 1972; Dorsey, Edmister, and Johnson, 1995; Edmister, 1972; Frydman, Altman, and Kao, 1985; Ohlson, 1980; Shumway, 2001; Zavgren, 1983; Zmijewski, 1984); the other is about the cost of bankruptcy – the return or loss creditors in bankruptcy proceeding receive (Altman, 1984; Warner, 1977; White, 1983 and 1996; Weiss, 1980).

This research, however, investigates the performance of the legal procedure of bankruptcy by characterising what kind of company would survive through each step of the procedure. In other words, we are trying to determine the ability of the law to screen a pool of distressed firms seeking rescue from reorganisation. The ideal situation is one in which the law could differentiate between efficient and inefficient companies and then allow the efficient ones to be reorganised while liquidating the inefficient. So far, there is no empirical research attempting such an examination. Only Asquith, Gertner, and Scharfstein's (1994) study comes close but this just identifies the firm's characteristics that influence the choice between out-of-court settlement and formal bankruptcy by financially distressed firms.

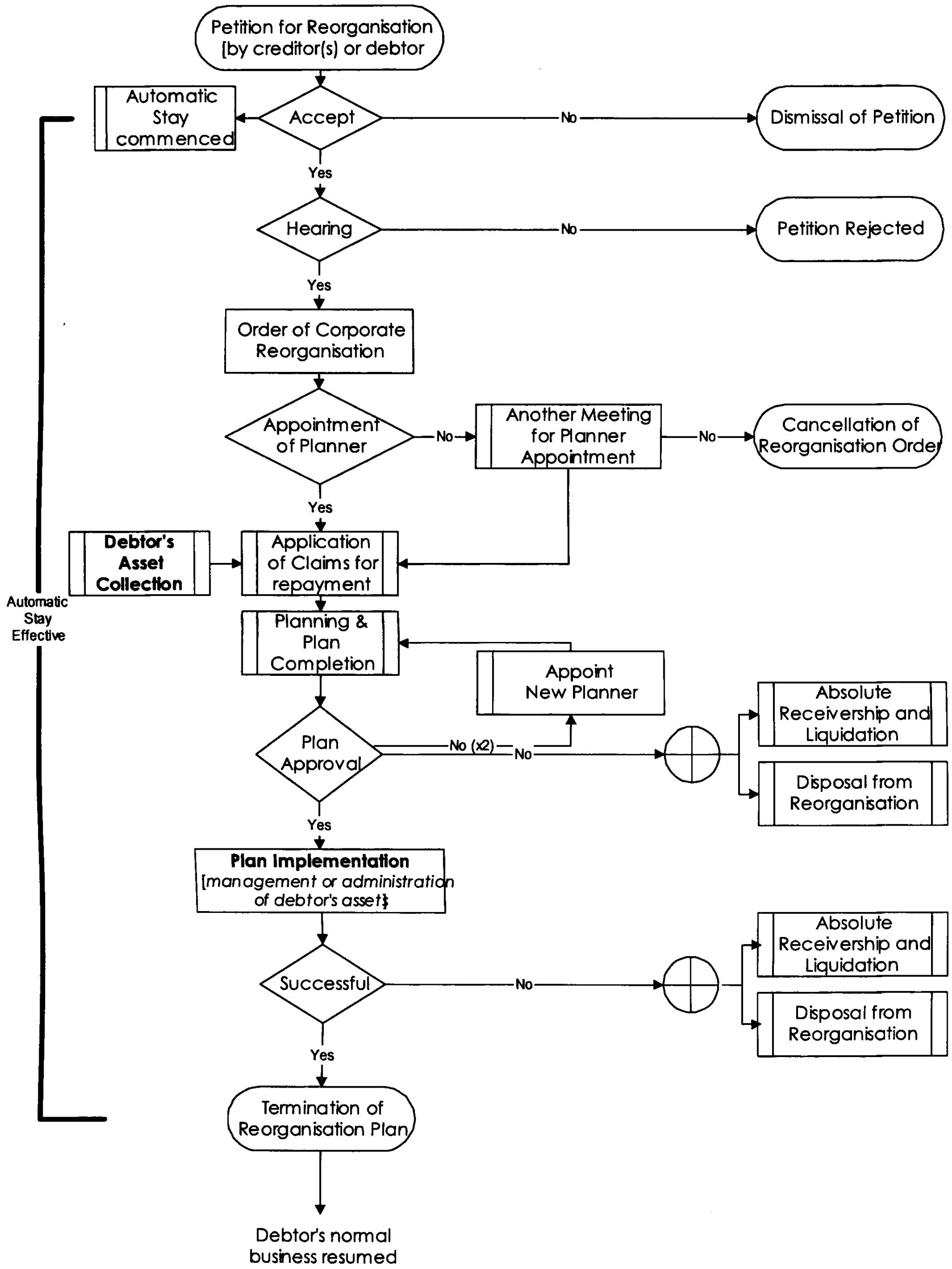

Figure 7.1. Conceptual Framework of Reorganisation under Bankruptcy Act

(same as Figure 5.2)

Figure 7.1 represents the conceptual procedure of bankruptcy under the enforcement of the Thai Bankruptcy Act (after the amendment to include reorganisation provisions). However, this procedure can be simplified into three major screening points (see Figure 7.2):

i) the acceptance of an application for reorganisation by the court;

ii) the approval of a reorganisation plan by creditors; and

iii) the success (or failure) of reorganisation.

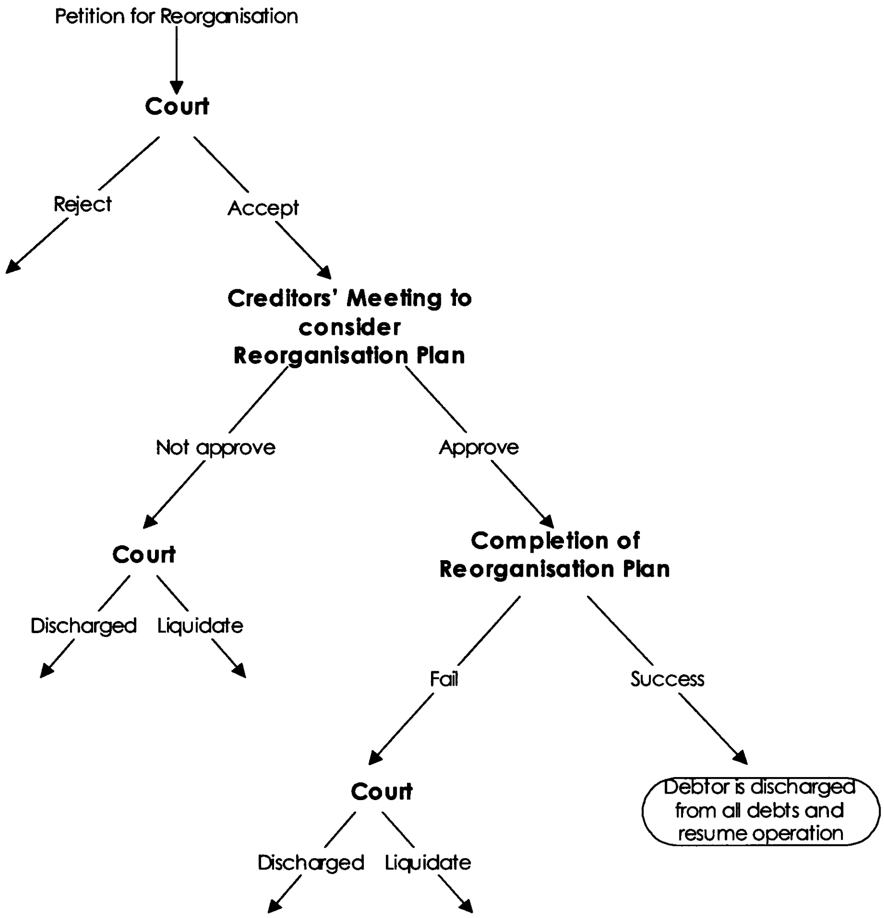

Figure 7.2. A Simplified Reorganisation Process

At each step, the characteristics of a company provide the crucial information to evaluate the performance of the law itself. If the law allows the bad or inefficient company to survive, it implies that it is not efficient. Such a finding may assist the lawmakers to amend the law in order to promote economic efficiency. Additionally, if inefficient companies are surviving due to defects in the law, more and more company' managements will exert less effort to maintain and promote efficiency because such effort is costly.

7.2. Methodology

7.2.1. Brief Review of Methodologies for an Empirical Study of Bankruptcy

The methodologies employed in empirical researches of bankruptcy mentioned earlier are varied, particularly on the prediction of bankruptcy. The methodologies used are discriminant analysis, hazard models, recursive partitioning, and artificial neural network systems. Although adopting different prediction methods, researchers all use the information provided by various financial ratios. It is generally accepted that financial ratios convey useful information about the intrinsic status of a company which could be used to predict the failure of the firm. Pioneering work by Altman (1968) using multiple discriminant analysis (MDA) was the first to use various financial ratios to predict the likelihood of bankruptcy. It paved the way for more advanced methodologies but the central focus has remained on financial ratios.

However, causes of insolvency involve complex processes and are difficult to be objectively determined. Financial ratios are the conveyors of such information for the detection of future insolvency. In other words, they are an early warning system indicating the mounting risk of bankruptcy. Because there was no prior theory specifying explanatory variables of corporate insolvency, Altman (1968) employed the multiple discriminant analysis (MDA) to identify the best possible set of financial ratios to give the most accurate prediction of bankruptcy.

Since then, there have been numerous studies with the same aim using different methodologies. By and large, it turns out that the set of financial ratios estimated by Altman (1968) remains a useful predictor for bankruptcy regardless of the statistical or empirical techniques employed. Even in the recent works of Frydman, Altman, and Kao (1985), Dorsey, Edmister, and Johnson (1995) and Shumway (2001) that use the *recursive partitioning algorithm* (RPA), the *artificial neural network* and the *hazard model* respectively, the comparable set of financial ratios is still found to be a good predictor. Hence, the differences in statistical techniques are primarily for improving accuracy of prediction. There has been no other attempt to introduce a different set of explanatory variables.

Asquith, Gertner, and Scharfstein (1994) tried to identify the firm characteristics that influence the decision to solve the financial distress between bankruptcy and non-bankruptcy alternative by using a simple probit model. Their work also used a comparable set of explanatory variables with the theoretical support of Jensen (1989) which claims that a distressed company with high leverage and good performance will tend to seek the non-bankruptcy solution.

7.2.2. Selected Methodology

After a review of alternative methodologies, we opted to use the econometrics of *discrete response* or *discrete choice models* using panel data in this empirical analysis. Firstly, it serves the purpose of the study to characterise companies through each step of the law involving the decision making by the court and/or creditors. Apart from the research by Asquith, Gertner, and Scharfstein (1994) who used a probit model, all studies use techniques that are not concerned with an analysis of decision-making but by distinguishing bankrupt companies from the rest. Secondly, our aim is not to find the best predictor for a certain outcome from the process but the characteristics or specific information of companies at each stage. Since a similar set of independent variables has been shown to have sufficient explanatory power to distinguish bankruptcy firms from others, we believe this similar set of variables should also be applied in our analysis. Thirdly, an economic interpretation of results from some techniques is not possible. For example, a discrimant score (Z-score) from multiple discriminant analysis which has been adjusted by the contribution of each discriminant factor. An interpretation cannot be made in the same way as coefficients from a regression. Similarly, a weight in each node of the recursive partitioning algorithm (Frydman, Altman, and Kao, 1985) or a so-called *knowledge* in an artificial neuron and weights of a neural network that connecting the input layer to the hidden layer and onwards to the output layer (Dorsey, Edmister, and Johnson, 1995) could not be interpreted directly as regression coefficients. Although these methods are proved to be highly accurate, their accuracy achieved at the cost of straightforward interpretation. Finally, in discriminant analysis, for instance, the information of a company has been simplified and assumed to be constant. But the performance of the firm changes overtime and to incorporate both time variant variables (firm performance) and company specific variables, panel data are chosen.

Technically, the hazard model proposed by Shumway (2001) is very similar to our selected method but it requires a hazard function to be estimated prior to the estimation rather than presume the underlying parametric form, for example, as a logistic distribution for a logit model or as a normal distribution for a probit model. Given the limited size of our sample (discussed in the following section), there may be insufficient observation to estimate a reliable hazard function for our analysis since the hazard function has a non-linear likelihood function and time-varying covariates.

Due to the sequential nature of the bankruptcy process, there are more contending econometric methods to be considered, including variants of the double-hurdle model, sequential-response models and a nested logit model. It is worth noting that a majority of applications using such models are based on a single economic agent or decision maker (Maddala, 1983; Jones, 1989 and Moffatt, 2003 for double-hurdle models). It is generally, for all discrete choice models, to assume the response to be an outcome of an individual decision-maker or group of individuals with similar preferences (Bierlaire, 1997).

However, with the Thai bankruptcy procedure, the process involves more than one decision-maker (see Figure 7.2 above). At the petition stage, the debtor, the creditor (or the group of), and a coalition of the first two can decide to file the petition for reorganisation. Acceptance into reorganisation, in the meantime, is decided by the court, while approval of the reorganisation plan is made by creditors. The final outcome of reorganisation is a result of the plan administrator's effort and the random state of nature. Although a decision at any stage must be subsequent to an outcome of a prior one, the decision maker can have no influence on the previous stage and the decision of others at the previous stage has no influence on the decision-making at this stage because the decision-makers at both stages are different.

If, however, the procedure is modified in such a way that only one claimant is allowed to make the decision – i.e. only creditor(s) can file for the petition and can approve the reorganisation plan and the court abstains from exercising its subjective discriminatory power when the petition is considered but follows predetermined rules, all models mentioned above are applicable. Since the existing procedure involves more than one individual (or group of), we decided to focus on each stage of decision rather than the whole process.

A General Description of Logit, Probit, and Multinomial Logit Models

Starting with the linear regression model, the expectation of a random dependent variable y, $E(y)$, has the systematic relationship, determined by the unknown parameter, β, with the combination of its explanatory variables, x, which can be denoted as:

$$E(y) = \beta'x. \tag{7.1}$$

If y is regarded as a probability, y could be expressed as:

$$\Pr(y = 1) = F(\beta'x) = E(y \mid x). \tag{7.2}$$

For a linear probability model,

$$\Pr(y=1) = F(\beta'x) = \beta'x. \tag{7.3}$$

For a logistic distribution, we obtain the logit model,

$$\Pr(y=1) = \frac{e^{\beta' x}}{1+e^{\beta' x}}. \tag{7.4}$$

And for the cumulative normal distribution function, the probit function is:

$$\Pr(y=1) = \int_{-\infty}^{\beta' x} \frac{1}{2\pi} e^{\frac{-u^2}{2}} du = \Phi(\beta' x) \tag{7.5}$$

Logit and Probit estimations are used to estimate econometric models which have a binary dependent variable. The two models share an almost identical approach except for their underlying probability distribution functions or the link function described above. A parameter estimate of a logit model is approximately 1.6 times of the estimate of a probit model (Liao, 1994; Hsiao, 1996).

In a binary response model, the dependent variable can take only two possible values, generally zero or one; for example, the firm is accepted into reorganisation (1) or is rejected (0). Ordinary least square (OLS) estimation, which is a very simple and popular method, suffers from the deficiency that it cannot restrict the value of the dependent variable to zero or one (Maddala, 1983; Hsiao, 1996). With such a restriction, the maximum likelihood (ML) method is employed instead.

For the multinomial logit model, there are more than two discrete possible values, say J possibilities. The underlying link function becomes

$$\Pr(y=j|x) = e^{(\beta_j' x)} / \left[1+\sum_{h=1}^{J} e^{(\beta_h' x)}\right] \tag{7.6}$$

The partial effects for this model, for continuous x_b, is described as

$$\frac{\partial \Pr(y=j/x)}{\partial x_k} = \Pr(y=j/x)\left\{\beta_{jk} - \left[\sum_{h=1}^{J} \beta_{hk} e^{\beta_h' x}\right] / g(x,\beta)\right\}, \tag{7.7}$$

where β_{hk} is the k^{th} element of β_h and $g(x, \beta) = 1 + \sum_{h=1}^{J} e^{\beta_h' x}$.

It is arguable that the multinomial logit model should be applied to the whole analysis in this chapter. As the decision made at each step of the procedure is presumably generated by a different process, it is more logical to have separated probit or logit model at each point. However, at the last stage where there are more than two possibilities of a company's state in reorganisation, the multinomial logit model is applied.

Logit and Probit Models with Panel Data

When each observation includes more than one time period, we have panel data. Using panel data increases information specific to the individual firm and shows how characteristics change over time. It also captures randomly occurring events that might affect the dependent variable. With panel data, there are two competing models: a fixed-effect and a random-effect model. A fixed-effect model implies *time-invariant* explanatory variables would better explain the variation in the dependent variable; analogously, a random-effect model implies *time-varying* explanatory variables could better explain the variation in the dependent variable.

Considering the residual of a normal regression consisting of two components: one is time varying, the other is not, $u_{it} = \mu_i + v_{ir}$. The random-effect and fixed-effect binary response models with panel data are described as:

$$\Pr(y = 1) = F(\beta' x + \mu_i + v_{it}), \qquad (7.8)$$

$$\Pr(y = 1) = F(\beta' x + \mu_i). \qquad (7.9)$$

Note that when $v_{it} = 0$ the random-effect model becomes the fixed-effect model, i.e., the fixed-effect one could explain $\Pr(y = 1)$ better. In other words, the random-effect model is rejected. Once the random-effect model is rejected, the fixed-effect model can be estimated in the same way as the ordinary binary response model without panel data (Batalgi, 1995; Wooldridge, 2002). There is a certain criterion from using the Hausman-type test to evaluate these two models (Batalgi, 1995) and the choice is made according to which one has the relatively higher explanatory power of the dependent variable.

The Interpretation of Coefficient Estimates

Unlike linear regression, estimated coefficients cannot directly be interpreted as a change in an overall probability with respect to a unit change in an explanatory variable because probit and logit models are non-linear and subject to normal and logistic distributions respectively. The common measure used to describe the change in the probability is the *marginal effect* on the conditional probability. Marginal effects of both models are:-

Probit: $$\frac{\partial \Pr(y = 1 \mid x; \beta)}{\partial x_j} = \phi(\beta' x)\beta_j,$$

Logit: $$\frac{\partial \Pr(y = 1 \mid x; \beta)}{\partial x_j} = \frac{\exp(\beta' x)}{[1 + \exp(\beta' x)]^2}\beta_j,$$

where x_j is the j^{th} explanatory variable and β_j is the associated coefficient estimated from the regression.

It is worth noting that these marginal effects are dependent on the value of x when they are evaluated – i.e., using different x yields a different marginal effect. Consequently, marginal effects cannot be directly comparable. Moreover, different econometric packages use different methods to calculate marginal effects (Arulampalam, 1998). For instance, LIMDEP evaluates marginal effects at the mean of x using all observations. Anderson and Newell (2003) propose a simple normalisation of marginal effect allowing us to measure and compare marginal effects more effectively. We adopt the Anderson-Newell simplification of marginal effects instead of using default results provided by LIMDEP. For these dummy explanatory variables, we calculate the marginal effect when the dummy is 1 and 0 – this means, other things being equal, a probability change due to the change of the value of a dummy variable from 0 to 1.

For the multinomial logit model, the interpretation is not straightforward (Wooldridge, 2002; Schmidheiny, 2004). The marginal effect of any explanatory (independent) variable on a particular possible choice depends not only on its estimated coefficient but also on the mean of all other alternative coefficients (see Equation 7.7) that yield no general interpretation. Hence, it is, unlike probit and logit models, easier to look at the coefficient estimate as the log-odds ratio whereby the positive [negative] coefficient corresponding to a particular alternative implies that the relative probability of choosing that alternative increases [decreases] relative to the probability of choosing the reference category (Schmidheiny, 2004).

Since, there are three stages of the procedure to investigate (as mentioned earlier):

i) the acceptance of application for reorganisation by the court,

ii) the approval of reorganisation plan by creditors, and

iii) the success (or failure) of reorganisation.

It is supposed that the underlying determination of outcome at each stage is generated by different processes due to the nature of the decision makers and information available at the time a decision is made. Therefore, each stage of the procedure can be estimated by its own regression. For instance, acceptance into reorganisation is a decision made by the court while the appointment of the planner and plan approval are decided by creditors but the former one is made when there is no information about the plan. However, we discard the appointment of the planner from our analysis due to the bias toward the incumbent management of the debtor as examined in Chapter 5.

Thus, the dependent variables are defined as follows:

i) acceptance or rejection of the petition – if the court accepts the petition, this variable is 1, otherwise 0,

ii) approval of the reorganisation plan – if creditors approve the proposed or amended plan, this variable is 1, otherwise 0, and

iii) success of reorganisation – if the firm emerges from the procedure, this variable is 1, otherwise 0.

The estimation of the panel data is conducted using the software called LIMDEP Version 7.0. The logit model, unfortunately, cannot be estimated due to the restriction of LIMDEP itself. Since our sample contains high proportion of dependent variables with value 1 (y=1), LIMDEP requires "for every RHS [right hand side] variable, x, the minimum x for which y is 1 must be less than the maximum x for which y is 0, and the minimum x for which y is 0 must be less than the maximum x for which y is 1," otherwise it will cause a breakdown in the estimation.

7.3. Data

7.3.1. Choice of Data and Independent Variables

Because previous research on bankruptcy has produced the consistent finding that financial ratios are useful for predicting bankruptcy, it is reasonable to suppose that these ratios should be sufficiently informative to be used in this chapter to identify specific characteristics of distressed companies going through the procedure. Our analysis uses these financial ratios as independent variables. Due to the possibility of serial correlation between ratios by their construction, not every ratio can be used in the regression at the same time. Table 7.1 summarise the list of financial ratios used in various studies about bankruptcy (see Appendix for detail of these ratios).

To derive all the financial ratios described above, it is necessary to obtain financial information for each company in the sample. Such information could be found in the company's annual report and the relevant organisation that keeps the record of the company.

Moreover, as all firms are in the bankruptcy procedure, information related with the proceeding should be considered to enhance the estimation. Chapter 6 showed that there is an informational content conveyed by the behaviour of involving parties during the proceeding – from the petition until the release from reorganisation or liquidation. This type of information can also be employed as independent variables in an empirical study. For example, the petitioner [debtor, creditor(s), or both], the attempt on non-bankruptcy workout prior to the petition, previous legal lawsuit against the debtor, previous court judgement against the debtor, previous application for reorganisation, number, type, and claim of creditors, the nomination of reorganisation planner, the classification of creditors, and the proposed action to be taken to resolve the insolvency declared in the petition.

Table 7.1. Summary of Financial Ratios used by Previous Empirical Studies

Ratio	Empirical Studies										
	Altman (1968)	AGS (1994)	Beaver (1966)	Deakin (1972)	DEJ (1995)	Edmister (1972)	FAK (1985)	Ohlson (1980)	Shumway (2001)	Zavgren (1983)	MEZ (1984)
Cash Flow/ Total Assets				•			•			•	
Cash/ Total Sales				•	•		•			•	
Cash Flow/ Total Debt			•	•	•		•	•			
Current Assets/ Current Liabilities			•	•	•		•	•	•		•
Current Assets/ Total Assets				•	•		•				
Current Assets/ Total Sales				•	•		•				
EBITDA/ Total Assets	•	•			•		•		•		
Retained Earnings/ Total Assets	•				•		•		•		
Net Income/ Total Assets			•	•	•		•	•	•		•
Total Debt/ Total Assets		•	•	•	•		•		•		•
Total Sales/ Total Assets	•				•		•		•		
Working Capital/ Total Sales				•	•		•				
Working Capital/ Total Assets	•		•	•	•		•	•	•		
Quick Assets/ Total Assets				•	•		•				
Quick Assets/ Current Liabilities				•	•	•	•			•	
Quick Assets/ Total Sales				•	•		•				
Equity Market Value/ Total Capitalisation							•				
ln(total assets)					•		•				
ln(interest) or ln(interest+15)					•		•				
Cash/ Current Liabilities						•					
Current Liabilities/ Equity						•					
Inventory/ Sales						•					
Equity/ Sales						•					
Equity Market Value/ Total Debt	•								•		
Income/ Total Capitalisation											
Cash Balance/ Interest Expense		•									
(Interest Expense – EBITDA)/ Interest Expense at t=0		•									
Secured Debt/ Total Debt		•									
Cash/ Total Asset					•						
Shareholder Equity/ (Total Assets – Current Liabilities)					•						

Note: Abbreviations in the heading refer to the followings: AGS (1994) – Asquith, Gertner, and Scharfstein (1994); DEJ (1995) – Dorsey, Edmister, Johnson (1995); FAK (1985) – Frydman, Altman, and Kao (1985); MEZ (1984) – Zmijewski (1984).

Lastly, additional variables that the analysis in Chapter 2, 3, and 6 suggest to have an influence on the proceeding are added. These include the dummy variables for i) if the incumbent management is comprised of 'influential' persons, ii) number of related companies also seeking reorganisation, and iii) receiving investment privilege from the government. Nevertheless, it is publicly known that the enactment of the new Bankruptcy Act is to prevent the business failure and unemployment (as announced in Royal Gazette; Wisitsora-at, 1998; Asaporn, 1998). This is deemed to be a misunderstanding of the real purpose of bankruptcy law. To identify these misperceptions, more variables are added to capture the misperceived bias within the system, including the number of employees and size related variable (i.e., the bigger the company to fail, the more resulting unemployment).

7.3.2. Sources of Data

The data for the analysis, then, has to be firm-level data. There are two primary sources. For the financial accounting data, the Department of Commercial Registration, Ministry of Commerce requires every single company in the country to submit an annual financial report in the form of a balance sheet and a profit-and-loss statement. The availability of data is tremendous. Records are kept from the time when a company was first registered. Thus, the data have very large a very long time span. Extensive researches about Thai firms and conglomerates (Akira, 1996; Bualek, 2002; and Chulapongsathorn, 2000) have all relied on data from this source.

For information about the legal proceeding, the Central Bankruptcy Court keeps the record of court documents which are produced at each court summons. It is required by law that all material presented to the court must be recorded. Therefore, from when the petition is filed until the release from reorganisation or liquidation, detailed documentation exists.

For the remaining information, secondary sources are used. Akira (1996), Bualek (2002), and Chulapongsathorn (2000) compiled extensive information in depth on Thai companies including the schematic representation of networks and entourages. 'Yibpan' (2002a and 2002b) also provide an overview of Thai business conglomerates and the simplified connections between them. Thanapornpan (1998) reveals the nature and deficiency of the financial system in Thailand. Pongpaichit and Baker (1995) and Muscat (1994) set the scene for an overview and development of the Thai economy with reference to the usual specific attributes.

7.3.3. Sample and Data Collection

According to the Business Rehabilitation Office (BRO) at the Department of Legal Execution, Ministry of Justice, there are approximately 200 companies seeking reorganisation. The BRO provides a complete list of every company and the preliminary data. This makes possible data collection at the two main sources mentioned above. Data collection was made during November 1999 and January 2000 and the updates were made during January and February 2001 on the same sample set.

To avoid sampling bias and to increase the precision of the estimation, the whole population is selected (correct at the time of data collection). There are some companies that had already filed a petition for reorganisation but their cases are still in the process of hearing – no acceptance or rejection is given yet. These companies are excluded from the sample. There are some firms which have filed a petition more than once; they are treated as different firms as new information might affect the decision. The sample size is 166 companies.

The 166 firms are in different stages of proceeding. Hence, the number of observations in each regression for each stage will be different. Obviously, the number of observations is reduced as we progress through the procedure. All 166 companies had filed for reorganisation. Out of this 166, 154 companies have been granted reorganisation orders. Hence, 154 companies are the sample for the estimation on plan approval. Of these, 115 companies have had their reorganisation plan approved and this is the sample for the last estimation. At the time of data collection, only 4 companies have finally emerged from reorganisation.

Data from both sources, the Department of Commercial Registration and the Central Bankruptcy Court, are in hardcopy. A fee must be paid to get access to the records and a further fee is applied for photocopying selected records. No data are recorded in an electronic form that could be directly used.

For the data at the Department of Commercial Registration, all non-current records are archived in microfiche. Photocopies can be made from the microfiche but the specific pages of documents must be declared. Collecting the data from the past requires viewing the microfiche before the pages can be selected.

The data at the Central Bankruptcy Court is in hardcopy. It is organised on a case basis and then arranged in chronological order as the proceedings develop. A similar access method is applied. However, with special permission, the Central Bankruptcy Court granted the right to access the electronic imaging of all documents without requiring a fee. Although electronic imaging is available, it is necessary to read through all documents to extract the information in the documents. The imaging could not be directly transformed for use in a computer.

Finally, to construct the panel data, the data of each company were collected from the period 1995 until 2000 in order to cover the information before the economic crisis in 1997. In addition, from 1995 onwards, a new format of reporting was implemented which makes the comparison between the earlier period and the recent period more difficult. However, due to the fact that not every company submits a financial report on a regular basis, even though required to by law, the records of some companies cover less than 5 years. Hence, our sample is unbalanced panel data of 905 observations – belonging to 193 individual petitions made by 166 companies. The unbalanced panel data is kept because, as Hsiao (1990) suggests, making the panel balance may mean forgoing some information belonging to discarded individuals.

7.4. Acceptance into Reorganisation

In this section, we are interested in the determinants that influence the court's decision-making upon the petition for reorganisation and the difference in firm characteristics between those which are accepted and those which are not. Two options are available to the court, either to grant protection and issue a reorganisation order (i.e., accepted into reorganisation) or refuse the petition.[1] The Act requires the court to grant a reorganisation order if the debtor has qualifications complying with Section 90/3: i) the debtor is insolvent either with a single creditor or multiple creditors and an outstanding debt of not less than 10 million *baht* and ii) there are reasonable grounds and a good prospect for the debtor to be reorganised.[2]

At the time of application, the Act requires the petitioner to supply the following information: i) proof and status of insolvency, ii) proof of indebtedness to a single or multiple creditor with the sum of no less than 10 million *baht*, iii) reasonable grounds and prospect that the debtor can be reorganised, and iv) the nominated planner's name and qualifications.[3]

[1] BA 2541, Section 90/10.
[2] BA 2541, Section 90/3.
[3] BA 2541, Section 90/6.

It is worth noting that Section 90/3 allows a subjective judgement to be made on what is 'reasonable ground' and 'good prospect,' although an objective determination of insolvency is relatively easier to achieve.

Descriptive statistics of variables used in this regression are given in Table 7.2.

Table 7.2. Descriptive Statistics of Variables used to estimate the Probability of Acceptance into Reorganisation

Variables	**Mean**	**Standard Deviation**	**Minimum**	**Maximum**
Acceptance of Petition by Court	0.857	0.350	0.000	1.000
Number of Creditors	143.223	407.308	1.000	3676.000
Outstanding Debt	5.111×10^{9}	1.251×10^{10}	2870.810	1.522×10^{11}
Number of Employee	338.973	733.435	20.000	5049.000
Proportion of Debt owed by Financial Institutions to the Outstanding Debt	0.193	0.032	0.000	0.773
Proportion of Debt owed by Trade Creditors To the Outstanding Debt	0.030	0.006	0.000	0.182
Interest Expense – EBITDA	-1.050×10^{9}	5.169×10^{9}	-6.691×10^{10}	5.408×10^{9}
Working Capital (Current Asset–Current Liability)/*Total Asset*	-1.075	3.360	-49.974	6.012
Observations	905			

7.4.1. Econometric Model

The binary response model is formulated in such a way that it has the dependent variable as the outcome of the Court's decision, either to accept into reorganisation (1) or to refuse the petition (0). The probability of the Court accepting the petition and issuing a reorganisation order is assumed to be explained by the vector of firm specific explanatory variables.

$$ACCEPT_i = \Phi(\alpha' a_{it} + \mu_i + v_{it}), \qquad (7.10)$$

where $ACCEPT_i$: the probability of the the firm i is accepted into reorganisation,
α : the vector of unknown parameters to be estimated,
a_{it}: the vector of explanatory variables of firm i and time t,
μ_i: the time-invariant specific residue to firm i, $\mu_i \sim$ IID $(0, \sigma_\mu^2)$,
v_{it}: the time-variant specific residue to firm i at time t, $v_{it} \sim$ IID $(0, \sigma_v^2)$.

When $(\alpha' a_{it} + \mu_i + v_{it})$ exceeds a certain threshold, i.e., $\Phi(\alpha' a_{it} + \mu_i + v_{it}) \geq 0$, $ACCEPT_i$ will take the value of 1; otherwise, $ACCEPT_i$ is zero. In other words, there should be some certain factors influencing the decision of the court on granting the reorganisation order. When these factors are met, the court will give the order; otherwise, the court will refuse the petition. Moreover, if v_{it} is 0, the fixed-effect panel data model outperforms the random-effect, i.e., the random-effect model is rejected.

7.4.2. Explanatory Variables

The set of explanatory variables used in this model is based on the information required by law when a petition for reorganisation is filed. Primarily, it is about the indebtedness and the status of the debtor. Financial ratios that could predict bankruptcy are used in the estimation as well.

The severity of the indebtedness or insolvency should have an influence on the court's decision: if the level of insolvency (i.e., how much the total debt exceeds the total asset) is higher, the higher is the probability of the court accepting the company into reorganisation *ceteris paribus*. Moreover, the number of creditors should also increase the probability of acceptance because of higher transaction/renegotiation costs that hinder the non-bankruptcy solution. According to the analysis in Chapter 6, if the proportion of financial institution creditors is high, it should be more likely for the debtor to be restructured outside bankruptcy. On the other hand, if the proportion of trade creditors is large, it is more likely for the debtor to seek reorganisation because trade creditors have a lower ability to offer the debtor any help in recovering from the distress (apart from the increase in the trade credit size and the collection period).

The misconception of the bankruptcy role by the public is part of the research's concern (see 7.4.1). The number of employees is included to see if the misunderstanding that reorganisation would preserve employment is present – i.e. a positive effect is expected. It is also possible that the requirement in (1) above is misinterpreted, and we can compare levels of insolvency and outstanding debt in the analysis.

Other explanatory variables are selected from those accepted as having an influence on the possibility of bankruptcy. Asquith, Gertner, and Scharfstein (1994) use the variable '(Interest Expense-EBITDA)/Interest Expense' at the time of petition filing to measure the proportion of a company income stream that is earmarked for interest payment. It is expected that this ratio should have a positive effect on the probability of acceptance because a larger interest burden on a company makes it difficult to restructure outside bankruptcy. The variable 'Working Capital (Current Asset – Current Liability)/Total Asset' is a measure of the net liquid assets of the firm relative to its total capitalisation. In other words, it indicates the proportion of 'free' assets for the company to use whichever are not subject to a current obligation to repay. Altman (1966) states that a firm experiencing continuous operating losses would have this ratio low. It also signifies relatively lower short-term debt. It should have a negative effect on the probability of acceptance.

7.4.3. Estimation Results

Table 7.3 show the regression result obtained from the fixed-effect probit model using unbalanced panel data of 905 observations. The estimation reveals that the fixed-effect model outperforms the random-effect model. Hence, the random-effect model is rejected.

The coefficient of the number of creditors is positive and significant as expected. This implies that the probability of being accepted into reorganisation rises as the number of creditors increases. According to its marginal effect, every 100 increase in the number of creditors, on average, increases the probability of acceptance by 0.043. This implies that the court is aware of the renegotiation problem among large numbers of creditors preventing non-bankruptcy settlement.

The level of insolvency (Total Asset – Total Debt) and its relative magnitude to total assets (Insolvency/Total Asset), however, yield insignificant coefficients, while the outstanding debt gives a positive and significant coefficient. This confirms our *a priori* concern about the misinterpretation of the law and the misunderstanding of the role of bankruptcy by the court. The number of employees represents employment and its estimated coefficient is positive and significant implying the misconception by the law to preserve employment. Every 100 increase in employees, the probability of being accepted into reorganisation is increased by approximately 0.005.

Since many companies default well before the petition, the ratio suggested by Asquith, Gertner, and Scharfstein (1994) could not be calculated. Instead, a simple variable (Interest Expense – EBITDA) is used. The coefficient of this variable is negative and significant. If it has a negative value, it means the interest expenses are less than earning; the positive value implies the opposite – interest expenses exceed earnings. This should be considered as the more serious case and the need for bankruptcy is greater. However, more 'free' earning may lead to conflicts between creditors trying to prevent a non-bankruptcy solution. Eventually, reorganisation must be sought. The coefficient of the proportion of working capital to total assets is negative and significant as expected. Those companies with this ratio high will be more likely to achieve a non-bankruptcy settlement because of the relatively small proportion of debt that will due in the near future. A unit increment in this variable reduces the probability of acceptance by 0.027.

Table 7.3. Coefficient Estimates for the Probability of Acceptance into Reorganisation

Explanatory Variable		**Coefficient**
Number of Creditors		1.071×10^{-3}**
		(5.416)
		[4.273×10^{-4}]
Outstanding Debt		5.374×10^{-11}**
		(5.499)
		[2.144×10^{-11}]
Number of Employees		1.291×10^{-4}
		(1.615)
		[5.153×10^{-5}]
Proportion of Debt owed by Financial Institutions to the Outstanding Debt		0.467**
		(2.444)
		[0.167]
Proportion of Debt owed by Trade Creditors To the Outstanding Debt		2.701**
		(15.896)
		[2.841×10^{-2}]
Interest Expense – EBITDA		-9.469×10^{-11}*
		(-1.831)
		[-3.778×10^{-11}]
Working Capital (Current Asset – Current Liability)/Total Asset		-6.817×10^{-2}*
		(-4.407)
		[-2.700×10^{-2}]
Number of Observations	905	
Log-likelihood Value	-428.1563	
Significance Level	0.0000	
Pseudo R^2	0.5857	

Note: *t-statistics* in parentheses;
Marginal effects in square brackets (calculated using Anderson-Newell simplification);
* denotes a significance of 95 per cent or higher;
** denotes a significance of higher than 99 per cent.

The coefficient of the proportion of debt owned by trade creditors to the total debt is positive and significant. Comparing a firm solely with a trade creditor and one without any trade creditor, the one with 100 per cent trade credit has a higher probability of acceptance by 0.028 than the one without a trade creditor. This agrees with what was conjectured. On the other hand, the sign of the coefficient of the proportion of debt owned by financial institutions is positive and significant, contradictory to expectation. If a firm owes its debt solely to financial institutions, its probability of acceptance is 0.167 higher than a firm with no financial institutional creditor.

The relative importance of financial institution creditors is apparent. One possible explanation is that the court deems the large proportion of debt owed by financial institutions as a 'reasonable ground for reorganisation.' Since the law does not provide an objective measurement for the 'reasonable ground for reorganisation,' the court may simply believe financial institutions are the key players who can make reorganisation possible.

7.5. Approval of the Reorganisation Plan

Before reorganisation can be commenced, the reorganisation must be approved by creditors[4] and then certified by the court.[5] This section investigates the characteristics of companies that have their reorganisation plan approved. Theoretically, a creditor would vote for the plan if and only if the plan confers no less than what she would get in liquidation and certainly more than what she would get outside bankruptcy; otherwise, she would vote against the plan. By deduction, the approval of a reorganisation plan shows that at least none of the creditors are worse off[6] compared to all other available methods to provide repayment. This further implies the fundamentals of the company must be sufficiently good in order to generate a sufficient surplus to be shared amongst creditors in reorganisation. Alternatively, the fundamentals of the company must provide a sufficient surplus to minimise creditors' losses. Thus, the approval of the plan is the outcome of negotiation between the debtor and creditors.

Note that the appointment of a planner has been omitted. This is due to the fact the Act is biased in favour of the incumbent management of the debtor whereby the debtor-nominated planner would be appointed unless creditors of more than two-thirds of the outstanding debt vote against **and** propose their planner.[7] Therefore, for creditors to refuse the appointment of the debtor's planner, the creditor-appointed planner must be backed by two-thirds of the total vote already. This would result in the automatic approval of the plan (which also requires two-third of the total claimable debt).

Table 7.4 shows the descriptive statistics of variables used in the regression in this stage.

[4] BA 2542, Part 7, Section 90/42 – Section 90/55

[5] BA 2542, Part 8, Section 90/56 – Section 90/58.

[6] BA 2542, Section 90/58 (3): the Act requires the court to ensure that creditors are not worse off than from liquidation.

[7] BA 2541, Section 90/17.

Table 7.4. Descriptive Statistics of Variables used to estimate the Probability of Plan Approval

Variables	Mean	Standard Deviation	Minimum	Maximum
Plan Approval	0.812	0.391	0.000	1.000
Number of Creditors	161.0123	443.144	3.000	3676.000
(Total Liability – Total Asset)/Total Asset	-1.134	4.878	-71.516	0.999
Interest Expense – EBITDA	-1.236×10^{9}	5.710×10^{9}	-6.691×10^{10}	5.408×10^{10}
Proportion of Non-operating Expense to Operating Expense	0.219	0.231	0.000	0.999
Logarithm of Interest Expense	17.820	4.169	0.000	23.297
Logarithm of Total Asset	21.077	1.539	14.090	25.875
Influential *Person in the Company's Board*	0.571	0.495	0.000	1.000
Settlement in Non-Bankruptcy Negotiation (CDRAC Programme)	0.398	0.490	0.000	1.000
File the Petition more than once	0.124	0.350	0.000	2.000
Observations			734	

7.5.1. Econometric Model

In this section, the binary response model of probit is used, similar to Section 7.4. The dependent variable is the approval of the reorganisation plan. It should have a value equal to one (1) when the reorganisation plan for a particular company is approved; otherwise it would be zero (0). The model estimates the probability of plan approval as a function of the vector of explanatory variables:

$$APPROVAL_i = \Phi(\gamma' w_{it} + \mu_i + v_{it}), \qquad (7.11)$$

where $APPROVAL_i$: the probability of approval of firm i's reorganisation plan,
γ: the vector of unknown parameters to be estimated,
w_{it}: the vector of explanatory variables of firm i at time t,
μ_i: the time-invariant specific residue of firm i, $\mu_i \sim$ IID $(0, \sigma_\mu^2)$,
v_{it}: the time-variant specific residue of firm i at time t, $v_{it} \sim$ IID $(0, \sigma_v^2)$.

The vector of explanatory variable w_{it} influence creditors' agreement (or disagreement) to the reorganisation. It is believed that, if the company in question meets a particular unknown criterion, creditors will be convinced the plan would make them at least not worse off. Then they would approve the plan. In other words, this section tries to find out what kind of company receives more chance of a 'go ahead' from creditors. For the choice between the fixed-effect and random-effect panel data model, if v_{it} is 0, the fixed-effect model prevails.

7.5.2. Explanatory Variables

At this stage, creditors are those who make the decision. They need to assess the likelihood of repayment as well as its magnitude if reorganisation takes place. If they can get more elsewhere, they will vote against the plan. If they can get more, or not less than from elsewhere, in reorganisation, they will vote for the plan.

First of all, the number of creditors remains a crucial determinant of any process in bankruptcy. It reflects the extent of information, transaction, and negotiation costs. Fewer creditors involved would make repercussions on the debtor's firm and the drafting of a reorganisation plan less complex. Information regarding the debtor's business would be relatively easier to realise among creditors. The coefficient on the number of creditors is expected to be negative.

The level of insolvency should be significant in this step despite being insignificant under the decision of the court. It is measured as (Total Liability – Total Asset)/Total Asset to eliminate the effect of company size. A higher degree of insolvency implies less possibility of value to be rescued. Thus, it acts as a disincentive for claimants on agreeing to a plan. Its coefficient is expected to be negative.

Next the concern is on how the company generates its income and spends. More earnings should increase the chance of approval, *ceteris paribus*. Analogously, lower expenses (costs), particularly those not related to the core business, should increase the probability of plan approval, *ceteris paribus*. Two variables are considered. (Interest Expense – EBITDA) is used, similar to the previous model in Section 7.4. The lower value of this variable means a higher 'free' income stream since a part of it must be set aside to satisfy the debt obligation even during reorganisation. Hence, a negative coefficient is expected. Another variable is the proportion of non-operating expenses to operating expenses. A higher ratio implies a higher level of inefficiency. In other words, the company wastes too much money on matters that generate no income. Since the Act favours the incumbent management, it is more difficult for the company to be reorganised, given everything else is constant. A negative coefficient is expected.

Frydman, Altman, and Kao (1985) and Dorsey, Edmister, and Johnson (1995) suggest two variables for predicting bankruptcy: the logarithm of interest expense and the logarithm of total asset. A larger interest expense indicates the scale of indebtedness of the company. We believe that it represents the scale of indebtedness better than total debt because of the dynamic nature of the interest rate and many companies in the sample have interest exceeding principals. More indebtedness, thus, hinders the possibility of reorganisation, other things being equal. A negative coefficient for this variable is expected. On the other hand, the size of total assets should indicate the potential for revival and, therefore, induce creditors to approve the plan. The coefficient for this variable is expected to be positive.

Dummy variables are also introduced to capture the specific characteristics discussed in the last chapter. The dummy variable will have a value of 1 if the company has the so-called 'influential' person in its board (see Appendix). It is presumed these influential persons should be able to convince creditors indirectly through their connection and/or *patron-client* relationship. A positive coefficient is anticipated. Next is the dummy variable where the debtor has reached agreement under the CDRAC regime before applying for reorganisation. It is straightforward that any company which can reach a settlement outside bankruptcy should get be able to settle in bankruptcy too. The cost for renegotiation outside bankruptcy is less. Again, a positive coefficient is assumed. Noting the effects of these two variables should be useful for overcoming insolvency outside bankruptcy. The incumbent management of the debtor with such characteristics should be able to settle for a non-bankruptcy solution. A last dummy variable is for the company that has filed a petition more than once. The coefficient is anticipated to be negative due to the fact that other alternatives must be more viable for creditors, providing the company has somehow previously failed to continue with reorganisation.

7.5.3. Estimation Results

The estimation using the probit model with panel data containing 734 observations produces the results as shown in Table 7.5. Again, the random-effect model is rejected and Table 7.5 provides the coefficient estimates of the fixed-effect model.

As predicted, the signs and significances of most explanatory variables are consistent with *a priori* expectation. The number of creditors undermines the probability of plan approval if the information, transaction, and renegotiation costs as well as the divergent expectation on the debtor's prospects are relatively high. According to the marginal effect, on average, every 100 increase in creditors reduces the probability of plan approval by 0.031. The level of insolvency and the logarithm of interest expense reflect the relative size of loss and the severity of indebtedness respectively. The marginal effect of insolvency suggests every 0.1 unit increase in the insolvency level causes the approval probability to decline by an average of 0.003. Meanwhile, the marginal effect of the logarithm of interest expense is 0.018 implying that every *baht* increase in this expense reduces the probability of plan approval by 0.002 per cent. The proportion of non-operating expense to operating expense has a negative impact on the possibility of approval too. Every 0.1 increment of the proportion of non-operating to operating expenses decreases the probability of approval by 0.024. In other words, if a firm has non-operating expense as large as its operating expenses, the probability of approval is 0.242 less than a firm without non-operating expenses.

The probability of plan approval increases when there are more earnings that are not obligated to the debt repayment. This represents the surplus that could be redistributed to all claimants; hence, the likelihood of making no one worse off is higher increases the possibility of plan approval. The coefficient on (Interest Expense – EBITDA) is negative and significant as expected. The coefficient on total assets has a positive sign and is significant as larger assets would give a greater chance of turn-round; at least some non-core assets could be sold off. Every ten million *baht* increase in this variable (more repayment obligation in relation to income) causes a reduction in the approval probability by 0.001.

Three dummy variables are positive and significant. It is worth noting the role of the influential person on the debtor's board and on success in a CDRAC programme. The marginal effect of the influential person dummy is 0.621 indicating that, for two identical companies, the one with an influential person on its board or as its shareholder has 62.10 per cent more chance of getting approval than one without. Similarly, the marginal effect for the CDRAC dummy of 0.742 suggests that, for two identical firms, the one with success under CDRAC has a 74.20 per cent greater likelihood of getting its plan approved than one without. These two variables indicate the higher possibility of achieving non-bankruptcy settlement. Of course, they would have similar impacts on bankruptcy but seeking reorganisation may give a clue for something. It could be other hindrances that make non-bankruptcy settlement infeasible or there is collaboration between the debtor and some creditors to use reorganisation strategically (this has been analysed in Chapter 6).

However, the coefficient of the dummy indicating the debtor has filed the petition more than once turns out to be positive and significant, contradictory to *a priori* expectation. Its marginal effect indicates that every time a firm files for reorganisation it increases the probability of approval by 0.219. One way to interpret this is to consider the non-bankruptcy renegotiation. If the debtor files for reorganisation before and has been expelled from reorganisation, for whatever reason, it is quite likely that non-bankruptcy renegotiation was attempted afterward and has ended up with no solution. Thus, every claimant agrees to seek a formal procedure again. This time they are more likely to vote for the plan because they realise that other options are not available or lead to an impasse. This reveals the inefficiency of the Thai bankruptcy system that allows parties to haggle for too long. It would be better, other things being constant, to commence reorganisation for this kind of company from the beginning, providing it will eventually come back to the process.

Table 7.5. Coefficient Estimates for the Probability of Plan Approval

Explanatory Variable	**Coefficient**
Number of Creditors	-7.686×10^{-4}**
	(-4.302)
	[-3.066×10^{-4}]
(Total Liability – Total Asset)/Total Asset	-6.430×10^{-2}*
	(-2.519)
	[-2.560×10^{-2}]
Interest Expense – EBITDA	-2.376×10^{-10}**
	(-2.757)
	[-9.480×10^{-11}]
Proportion of Non-operating Expense to Operating Expense	-0.977**
	(-3.548)
	[-0.242]
Logarithm of Interest Expense	-4.570×10^{-2}*
	(15.896)
	[-1.815×10^{-2}]
Logarithm of Total Asset	5.676×10^{-2}**
	(3.098)
	[2.251×10^{-2}]
Influential *Person in the Company's Board*	0.791**
	(5.939)
	{0.621}
Settlement in Non-Bankruptcy Negotiation (CDRAC Programme)	0.907**
	(6.253)
	{0.742}
File the Petition more than once	0.701**
	(3.339)
	[0.219]

Number of Observations	734
Log-likelihood Value	-272.0430
Significance Level	0.0000
Pseudo R^2	0.2332

Note: *t-statistics* in parentheses;
Marginal effects in square brackets (calculated using Anderson-Newell simplification);
Marginal effects of dummy explanatory variables in brackets (calculated when the dummy is 1);
* denotes a significance of 95 per cent or higher;
** denotes a significance of higher than 99 per cent.

7.6. Successful Reorganisation

The last stage of reorganisation is the success or failure of the process. In this section, the characteristics of companies successfully emerging from reorganisation are analysed. Since the individual firm has its own reorganisation plan, then plans across firms could be considerably different. The analysis, hence, is restricted to publicly known financial information. It is believed that if bankruptcy can be detected from the outset by a careful analysis of financial information, the probability of successful reorganisation may also be discernable for an examination of the comparable set of information.

In theory, a firm emerging from reorganisation after suffering from liquidity constraints should be one that is efficient or potentially efficient if a proper restructuring is made. Other inefficient firms should not be reorganised and must be liquidated. However, the Act does not really attempt to screen the efficient from the inefficient. Whether reorganisation has been successful or not, the incumbent management of the debtor will resume office and all rights of shareholders will be restored to the *status quo*.[8] The court has the discretionary power to exercise its judgement when the agreed length of time allocated to plan implementation is reached but the reorganisation is not yet complete. If it sees fit, an extension may be granted. If not, the court still has the choice between issuing an order of absolute receivership (starts liquidation) and the cancellation of reorganisation (resume debtor's *status quo*).[9] The effect of this structure has been discussed earlier in Chapter 5 and 6.

There are only a handful of companies emerging from reorganisation. The majority of companies are still in the process of plan implementation.[10] Therefore, at this stage, there are three main groups of companies: i) firms emerging from reorganisation, ii) firms during reorganisation, and iii) firms which fail following reorganisation. Essentially, the empirical analysis in this section is to find the appropriate set of explanatory variables that classify the pool of companies into these three groups. Table 7.6 provides the descriptive statistics of variables used in both estimations.

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[8] BA 2541, Section 90/74 and 90/75.

[9] BA 2541, Section 90/70.

[10] Since the law came into effect in 1998, only companies that filed petitions by the end of 1998 would have their plans implemented with a reorganisation period of 5 years.

Table 7.6. Descriptive Statistics of Variables used to estimate the Probability of Success in Reorganisation

Variables	Mean	Standard Deviation	Minimum	Maximum
Successfully Reorganised [in Probit]	2.349×10^{-2}	0.152	0.000	1.000
Status in Reorganisation [in Multinomial Logit]	0.998	0.221	0.000	2.000
Number of Creditors	109.983	232.812	3.000	1619.000
(Operating Revenue – Operating Expense)/Number of Creditors	-1.369×10^{7}	2.197×10^{8}	-4.928×10^{9}	7.545×10^{8}
Debt belonging to Financial Institutions – Debt belonging to Trade Creditors	7.067×10^{8}	3.913×10^{9}	-1.344×10^{10}	5.669×10^{10}
Interest Expense – EBITDA	-1.444×10^{9}	6.311×10^{9}	-6.691×10^{10}	5.408×10^{9}
Working Capital (Current Asset – Current Liability)/Total Asset	-1.191	3.824	-43.974	6.012
Operating Expense/Total Asset	0.768	3.179	0.000	62.765
Operating Revenue/Number of Employees	2.939×10^{7}	8.243×10^{7}	0.000	7.726×10^{8}
Total Asset/Number of Employees	9.413×10^{7}	2.003×10^{8}	5.770×10^{4}	1.727×10^{9}
Observations			596	

7.6.1. Econometric Model

The first task is to identify the characteristics of successful companies emerging from reorganisation. Although there are some companies which will eventually emerge from reorganisation, it is still useful to characterise those which have already succeeded. The probit model of binary response with an unbalanced panel is used. There are two competing models: the random-effect and the fixed-effect models. If the time-varying residue, v_{it}, is zero, the fixed-effect model has relatively more explanatory power than the random-effect one. The dependent variable is the probability of successful reorganisation bearing a value of one (1) if the firm revived; otherwise zero (0). The model estimates the probability of success in reorganisation as a function of the vector of explanatory variables:

$$SUCCESS_i = \Phi(\xi' z_{it} + \mu_i + v_{it}), \qquad (7.12)$$

where $SUCCESS_i$: the probability of success in reorganisation,
ξ: the vector of unknown parameters to be estimated,
z_{it}: the vector of explanatory variables of firm i at time t,
μ_i: the time-invariant specific residue of firm i, $\mu_i \sim$ IID $(0, \sigma_\mu^2)$,
v_{it}: the time-variant specific residue of firm i at time t, $v_{it} \sim$ IID $(0, \sigma_v^2)$.

Note that this model has one drawback. It regards all potentially recoverable companies as non-successful. The results will establish too-strict characteristics of successful companies. Actually, there are three states of companies mentioned earlier. The more appropriate model is the multinomial logit model. However, estimating the multinomial logit model requires the insignificant random-effect model using a panel data. Consequently, the model in (7.10) is primarily estimated to discover whether the random-effect model is rejected. If the random-effect model is rejected, we proceed with the multinomial logit model to establish the characteristics of firms in various states. The dependent variable is the state of company in reorganisation. It is zero (0) for companies which fail from reorganisation, one (1) for companies implementing a reorganisation plan, and two (2) for companies emerging from reorganisation. The state of firms in reorganisation is a function of the characteristic vector of explanatory variables:

$$STATE_i = e^{(\zeta_j' s_i)} / \left[1 + \sum_{h=1}^{J} e^{(\zeta_h' s_i)} \right], \qquad (7.13)$$

where $STATE_i$: the state of firm i in reorganisation, $j = 0$ if failed, $j = 1$ if still in reorganisation, $j = 2$ if succeed,
ζ: the coefficient vector relating explanatory variables and the probability,
s_i: the vector of explanatory variables of firm i.

7.6.2. Explanatory Variables

The main interest of the analysis remains focused on the number of creditors as a representation of information, transaction, and renegotiation costs as well as divergent expectations; even though at the very last stage of reorganisation, the creditors' role is still significant. Creditors have a monitoring role during the implementation of a reorganisation plan.[11] The coefficient on the number of creditors is anticipated to be negative. Still related with creditors, we consider the income stream of the firm that could be shared among its creditors. It is believed that, if each creditor is entitled to a larger share of the debtor's income stream, they will be more active on plan implementation. The ratio of (Operating Revenue – Operating Expense)/Number of Creditors is introduced to indicate this. It is expected to have a negative impact on the probability of success, *ceteris paribus*. Lastly, the relative negotiation power between the two groups of creditors, namely the financial institutions and trade creditors, is considered. Since financial institutions are in a better position to assist the reorganisation process, the higher proportion of debt belonging to financial institutions implies an easier and successful reorganisation. The difference of debt belonging to financial institutions and debt belonging to

[11] BA 2541, Section 90/63 (plan amendment) and Section 90/67 (disqualification of plan administrator).

trade creditors is used to represent this. Because some companies having no trade creditors the proportion of the two types of creditors will have a zero denominator. The coefficient of this variable is expected to be positive.

The performance of the company is crucial to the success or failure of reorganisation. (Interest Expense – EBITDA) is still used in this model and so is (Working Capital/Total Asset). The first one is the income which is free from debt obligation if it is negative (earning – interest payment) or the overburden debt if it is positive. The lower this value would allow the company to reinvest it according to the plan. Thus, the negative coefficient can be anticipated. The second one is a measure of relative liquid asset to total capitalisation (discussed in 7.4.2). Its coefficient should be positive.

Some additional variables related to efficiency are added. The proportion of operating expense to total assets represents the size of the firm's total cost. The higher the cost, the more difficult will be reorganisation. Thus, the probability of success is reduced. A negative coefficient is expected. The employees' share of earning (Operating Revenue/Number of Employees) indicates labour productivity to a certain extent. The higher this value the higher should be the probability of a successful reorganisation; hence a positive coefficient is expected. Finally, the employees' share of total asset (Total Asset/Number of Employees) reflects the asset specificity of the firm. If the company has a relatively high asset, it means its employees must have a certain level of competence to work with such an asset. Consequently, the higher asset specificity of the company's employees should improve the probability of a successful reorganisation. A positive coefficient is, hence, expected.

7.6.3. Estimation Results

Table 7.7 exhibits the results from the probit model with an unbalanced panel of 596 observations. Since the random-effect model is rejected, we could proceed with the multinomial logit model using the same data and explanatory variables to characterise three possible classifications of firms. Table 7.8 shows the characteristics of companies remaining in reorganisation and companies emerging from reorganisation successfully. Table 7.9 represents the marginal effects of the multinomial logit estimation.

Table 7.7. Coefficient Estimates for the Probability of Success in Reorganisation

Explanatory Variable		**Coefficient**
Number of Creditors		-0.158**
		(-6.227)
		[-1.804×10^{-2}]
(Operating Revenue – Operating Expense)/Number of Creditors		-9.441×10^{-9}**
		(-7.434)
		[-3.767×10^{-9}]
Debt belonging to Financial Institutions – Debt belonging to Trade Creditors		6.784×10^{-10}*
		(2.186)
		[2.707×10^{-10}]
Interest Expense – EBITDA		-1.619×10^{-10}**
		(-3.992)
		[-6.460×10^{-11}]
Working Capital (Current Asset – Current Liability)/Total Asset		1.956**
		(4.592)
		[0.115]
Operating Expense/Total Asset		-2.774**
		(-8.534)
		[-2.427×10^{-2}]
Operating Revenue/Number of Employees		5.366×10^{-8}**
		(7.127)
		[2.141×10^{-8}]
Total Asset/Number of Employees		-2.447×10^{-8}**
		(-6.769)
		[-9.764×10^{-9}]
Number of Observations	596	
Log-likelihood Value	-38.1454	
Significance Level	0.0000	
Pseudo R^2	0.4251	

Note: *t-statistics* in parentheses;
Marginal effects in square brackets (calculated using Anderson-Newell simplification);
* denotes a significance of 95 per cent or higher;
** denotes a significance of higher than 99 per cent.

From Table 7.7, all coefficient estimates correspond to *a priori* expectations, except the total asset/number of employees, which turns out to be negative and significant. For the reverse sign of Total Asset/Number of Employees, one way of explaining it is to note that asset specificity increases the defiance of the debtor during bargaining. In general, other things being equal, the firm with high asset specificity would have a greater chance to be reorganised because the likelihood of proceeding from liquidation is very low as well as being difficult for creditors to appoint an alternative competent management to run the debtor's company. The rescue value of the company is presumed to be high. Once the debtor and the incumbent management realise this fact, their aggression during renegotiation may increase and prevent a settlement from being reached, hence, the lower probability of success. According to the marginal effect, for every one million increase of total asset per head, the probability of success is reduced by 0.09.

It is worth noting that the relative bargaining power of financial institutions is significant. The higher bargaining power of these institutions leads to the higher probability of a successful reorganisation. This confirms the findings in Chapter 6 that financial institutions are crucial in reorganisation since they have a greater ability to absorb losses as well as having a larger pool of loanable funds compare to trade creditors. The marginal effect of the difference between debt owing to financial institutions and trade creditors suggests that every ten million increase in this difference raises the probability of success by approximately 0.003.

The coefficient of a number of creditors is negative and significant reinforcing the presence of high transaction costs; as does the free net available income per creditor. These two variables counteract each other. Other things being equal, the increase in the number of creditors lowers the probability of successful reorganisation. Simultaneously, (operating revenue – operating expense)/number of creditors decreases due to the increase in the number of creditors which further increases the probability of success. The marginal effect of a number of creditors advises that every additional creditor reduces the probability of success by 0.018. While the marginal effect of (operating revenue – operating expense)/number of creditors suggests every one million increase in this variable decreases the probability of success by approximately 0.004. It is worth noting how significant the number of creditors is to the success of reorganisation.

The effects of (Interest Expense – EBITDA), Working Capital/Total Asset, and Operating Expense/Total Asset are obvious and straightforward as previously discussed. Efficient companies should have negative value for the first variable, positive and high value for the second, and positive and low value for the third respectively. Their marginal effects can be interpreted as followed. For every 100 million increase in the difference of interest expense and earning, the probability of success declines by 0.006. A 0.1 increase in the ratio of working capital over total asset raises the probability of success by approximately 0.012. Meanwhile, the 0.1 increase in the ratio of operating expense over total asset reduces the probability by 0.002.

Lastly, the operating revenue/number of employees could be interpreted as labour productivity. The higher this value the higher is productivity. Therefore, the probability of a successful reorganisation should be higher. Its marginal effect indicates that the probability of success increases by 0.021 for every one million increase in this ratio. In addition, a cross-company comparison could be made. If two companies earn similar operating revenue, this ratio could represent their relative employment level. A company with a higher ratio would have lower employment. This suggests that, for a comparable level of operating revenue, the company with lower employment would have the higher probability of success. Since employees are among claimants with the highest priority in bankruptcy (whether reorganisation or liquidation), it could be deduced that more employees may cause the plan administrator to set aside more expenses to satisfy wages and salaries. Subsequently, this would leave the plan administrator with a relatively lower remainder to use in the plan and reduce the probability of success.

Because these results are too restrictive, the multinomial logit model is used to estimate the similar set of variables. Table 7.8 reveals the estimates of this model. The base case is the company which has failed from reorganisation ($SUCCESS_i = 0$). Two alternative states are presented: when the company remains in the reorganisation process ($SUCCESS_i = 1$) and when the company has successfully reorganised ($SUCCESS_i = 2$). Coefficient estimates for the first column are the log-odds between the failed company and the company remaining in reorganisation. Analogously, coefficient estimates for the second column are the log-odds between the failed company and the company emerging from reorganisation.

The results confirm the findings from the probit model with an unbalanced panel discussed earlier. An increase in the number of creditors reduces the probability of success and so does the (operating revenue – operating expense)/number of creditors. Increases in working capital/total asset and operating revenue/number of employees increase the probability of success. (Interest Expense – EBITDA) and total asset/number of employees are significant at less than a conventional level. Their signs, however, are still consistent.

Considering the log-odds between companies remaining in reorganisation and those who have failed produces some interesting implications. The positive coefficient suggests that, when the number of creditors increases, the log-odds between remaining in reorganisation and failure increases by 0.003 but the log-odds between success and failure decreases by 0.222. This means a firm having more creditors would have a higher probability of remaining in reorganisation than of failing. Although the coefficient is not significant at the conventional level, it could be interpreted that, along with the coefficient in the successful case, the lower number of creditors will have lower transaction costs and, thus, lead to more precise decisions by creditors about the deployment method. If they see that the company must be reorganised, the probability of success is high. If they see the company must be liquidated, the probability of failure is then high. At the earlier stage of bankruptcy, however, all claimants may not have sufficient knowledge about the debtor's enterprise. But once the procedure has been commenced, at a certain point in time, creditors might realise that liquidation is the better way of deployment, hence the failure of reorganisation. Companies remaining in reorganisation, *ceteris paribus*, have a relatively greater divergent creditors' expectation than those which have failed from reorganisation and successfully re-emerged from reorganisation. That is why they still cannot agree on the appropriate deployment method.

Table 7.8. Coefficient Estimates for the Characteristics of Companies in Reorganisation Using the Multinomial Logit Model

Explanatory Variable	**Coefficient**	
	Remaining in Reorganisation	*Successfully Reorganised*
Number of Creditors	3.358×10^{-3} (1.670)	-0.222** (-3.743)
(Operating Revenue – Operating Expense)/ Number of Creditors	1.546×10^{-9} (0.259)	-1.832×10^{-8}** (-2.741)
Debt belonging to Financial Institutions – Debt belonging to Trade Creditors	1.106×10^{-10} (0.660)	1.564×10^{-9}** (3.163)
Interest Expense – EBITDA	-9.258×10^{-10} (-1.610)	-1.026×10^{-9} (-1.753)
Working Capital (Current Asset – Current Liability)/ Total Asset	-1.099** (-2.905)	2.713** (2.959)
Operating Expense/Total Asset	4.248** (6.470)	-1.533 (-1.460)
Operating Revenue/Number of Employees	-8.546×10^{-8}** (-5.621)	4.294×10^{-8}** (2.063)
Total Asset/Number of Employees	4.141×10^{-8}** (5.053)	-1.816×10^{-8} (-1.878)

Number of Observations	596
Log-likelihood Value	-119.8703
Significance Level	0.0036

Note: *t-statistics* in parentheses;
* denotes a significance of 95 per cent or higher;
** denotes a significance of higher than 99 per cent.

Table 7.9. Coefficient Estimates for the Partial Derivatives of Probability of the State of Reorganisation with respect to the Vector of Characteristics of Companies in Reorganisation Using the Multinomial Logit Model

Explanatory Variables	**Coefficient of Partial Derivatives**		
	Failed to be Reorganised	*Remaining in Reorganisation*	*Successfully Reorganised*
Number of Creditors	-1.499×10^{-6} (-0.940)	1.499×10^{-6} (0.940)	-3.255×10^{-16} (-0.145)
(Operating Revenue – Operating Expense)/ Number of Creditors	-6.901×10^{-13} (-0.248)	6.901×10^{-13} (0.248)	-2.868×10^{-23} (-0.142)
Debt belonged to Financial Institutions – Debt belonged to Trade Creditors	-4.940×10^{-14} (-0.676)	4.940×10^{-14} (0.676)	2.098×10^{-24} (0.145)
Interest Expense – EBITDA	4.134×10^{-13} (1.563)	-4.134×10^{-13} (-1.563)	-1.459×10^{-25} (-0.148)
Working Capital/Total Asset	4.907×10^{-4} (1.272)	-4.907×10^{-4} (-1.272)	5.501×10^{-15} (0.142)
Operating Expense/Total Asset	-1.897×10^{-3} (-1.172)	1.897×10^{-3} (1.172)	-8.342×10^{-15} (-0.142)
Operating Revenue/Number of Employees	3.816×10^{-11} (1.363)	-3.816×10^{-11} (-1.363)	1.853×10^{-22} (0.142)
Total Asset/Number of Employees	-1.849×10^{-11} (-1.262)	1.849×10^{-11} (1.262)	-8.595×10^{-23} (-0.142)

Note: *t-statistics* in parentheses;
* denotes a significance of 95 per cent or higher;
** denotes a significance of higher than 99 per cent.

The signs of the coefficients on working capital/total asset, operating expense/total asset, operating revenue/number of employees, and total asset/number of employees conflict with our conjectures. A higher working capital/total asset would decrease the log-odds between remaining in reorganisation and failure by 1.099; while the log-odds between success and failure would increase by 2.713. Higher operating expense/total asset would increase the log-odds between remaining in reorganisation and failure by 4.248 but decrease the log-odds between success and failure by 1.533. Moreover, a higher operating revenue/number of employees would reduce the log-odds between remaining in reorganisation and failure by 8.546×10^{-8} but increase the log-odds between success and failure by 4.294×10^{-8}. These ratios directly reflect the performance of the company.

A possible explanation for having signs which conflict with our *a priori* expectation is that companies remaining in reorganisation are in an ambiguous state – uncertain whether to re-emerge or to be liquidated. A relatively low working capital/total asset, high operating expense/total, and low operating revenue/number of employees indicate the relatively low efficiency of a particular company. However, these ratios could be improved during reorganisation, providing the reorganisation plan is properly devised. If these ratios are relatively high, low, and high respectively, it implies that there is relatively less room for improvement. Therefore, reorganisation may not be worthwhile and other solutions will be sought. Be reminded that the failure from reorganisation does not imply liquidation under enforcement of the Bankruptcy Act.

An increase in total asset/number of employees would increase the log-odds between remaining in reorganisation and failure by 4.141×10^{-8} implying what was earlier expected in the normal probit model. This shows that higher asset specificity increases the probability of remaining in the process. Because it is difficult for creditors to realise the assets of debtors with high specificity by liquidation, those debtors are more likely to be in reorganisation. However, the increase in the debtor's bargaining recalcitrance could have prevented the accomplishment of reorganisation. That is why the negative coefficients for this variable are obtained in the probit model (see Table 7.7) and in the scenario of successful reorganisation whereby an increase of asset specificity reduces the log-odds between success and failure by 1.816×10^{-8} (see Table 7.8). This empirical verifies the inclination of a debtor to be aggressive in renegotiation. Kahneman and Tversky (1979) and Tversky and Kahneman (1991) reveal that, in the event of loss, risk preference could be different from gains, i.e., the same amount of loss affects preference more than the same amount of gain. Since insolvency is the situation where the debtor is likely to lose, attitudes towards risk may change. Reinforcing the discussion on asset specificity, the debtor's or its incumbent management's behaviour during renegotiation would be more aggressive and less co-operative.

7.7. Concluding Remarks

This chapter investigates the performance of the Bankruptcy Act by using econometric methodology to characterise companies in each stage of the reorganisation procedure. In some aspects, the Act performs as the concept of economic efficiency would suggest. However, in many circumstances, its inefficiency prevails. Much empirical evidence emerges from this analysis to substantiate previous analyses in preceding chapters.

One of the most important concerns in this chapter is the number of creditors because it is directly related with information, transaction, and bargaining costs. More creditors escalate these costs exponentially. These costs prevent private workouts from being achieved. That is why bankruptcy is needed.

Our second concern is the role of the financial institutions. In the last chapter, the they were supposed to play a crucial role in insolvency – in- and outside bankruptcy. Evidently, they are assumed to have too small role and, based on their abilities to absorb risk, bear relatively too little risk in reorganisation under the current legal framework. In addition, their relative bargaining power is high, particularly *vis-à-vis* trade creditors.

Our next concern is the misunderstanding of bankruptcy's role by the relevant authorities. The evidence in this Chapter reveals our premonition about the misplacement of bankruptcy. Preserving employment is better achieved by improving firms' efficiency than using bankruptcy law. Furthermore, the influence of influential persons inside debtor companies is apparent and confirms the significance of personal relationships in the Thai business reality.

Here are some points worth being recapitulated.

Creditors

The number of creditors plays a significant role throughout the reorganisation process. Each and every regression gives a significant coefficient estimate. For acceptance into reorganisation, the coefficient is positive indicating the court is aware of the mounting transaction costs as creditors increase. Meanwhile, in the plan approval and the success of reorganisation, the coefficient estimates are negative implying that lower transaction costs will increase the probability of plan approval and success. Moreover, there is evidence that the competition between creditors for the debtor's free income stream is exist. It is one of the decisive factors affecting the success of reorganisation.

However, good bankruptcy law should be able to align the divergent expectations of creditors to form a mutually agreeable perception on a debtor. Ideally, the best bankruptcy law should select between success and failure of reorganisation on economic efficiency only, not on the number of creditors. Thus, the significance of this variable should decline as the debtor moves along the reorganisation process. The same argument applies to the conflict over the debtor's income.

Misunderstanding of the Actual Role of Bankruptcy

There is substantiated empirical evidence for a misunderstanding of the real role of bankruptcy and reorganisation under the Bankruptcy Act itself and the Central Bankruptcy Court which is authorised to implement this Law. First there is the preservation of employment. Bankruptcy is not a tool to preserve employment; it is a tool to maximise a company's value and distribute such value to all claimants in the event of insolvency. The evidence shows the positive impact of high employment on the probability of being accepted into reorganisation. This testifies the wrong perception embedded in the Law and the court.

In addition, it is evident that the acceptance of distressed firms into reorganisation is based on the size of the debt, instead of on the size of insolvency or on the relative size of insolvency. Firms with more employees are also more likely to be accepted.

Discouragement of Private Workout and Strategic Use of Bankruptcy

Good bankruptcy procedure should allow the debtor and his creditors to seek a solution privately unless transaction costs are too prohibitive to prevent such a solution being achieved. On the plan approval, evidence reveals some variables that should help the debtor to reach a settlement outside bankruptcy are statistically significant. Dummy variables for the debtor having an 'influential' person on the board and having settled on the CDRAC scheme are positive and significant. It is true that these variables could be significant regardless of the regime – inside or outside bankruptcy. But it is disputable that these companies could have been successfully restructured by private workout instead of by reorganisation, particularly, companies that have reached an agreement under the CDRAC regime.

As discussed in Chapter 6, it is likely that reorganisation is used strategically by the debtor, some creditors, or an alliance of the debtor and some creditors at the expense of other creditors. If a debtor firm reached an agreement in CDRAC to continue the business, it needs to pay all non-financial institution creditors for its principals and/or interest as if it were solvent. This implies that financial institution creditors have to lend their money to the debtor to pay for these obligations in order to continue the restructuring outside bankruptcy. Non-financial institution creditors are outside the CDRAC, therefore, they have the right to press a lawsuit against the debtor in the case of default. Once the debtor firm is in bankruptcy, they cannot do this because the debtor gains the protection of the automatic stay clause and, subsequently, financial institution creditors need not help the debtor meet the obligations with the non-CDRAC creditors. This situation proves that reorganisation has been strategically exploited to a certain extent.

By allowing companies that should be restructured privately outside bankruptcy to enter reorganisation easily, the Act can increase the chance of unnecessary further delay and lengthy renegotiation, which would not only adversely affect the potential recoverable value of the debtor's company but reduce the co-operative effort as well.

The positive and significant coefficient of the dummy variable indicating previous attempts at reorganisation is further evidence of the inefficiency of the law. Somehow the company, which has been dismissed from reorganisation earlier, can come back to the system with a greater probability of plan approval. It implies that the company must have tried all other available methods outside bankruptcy and was unsuccessful. All of its claimants must have realised that as well. That is why approval is relatively easier because all other alternatives have been tried. This is the extreme opposite case to the strategic exploitation of the system described above. In this case, the company that should have been in reorganisation was discharged from the process and then came back rather than being immediately reorganised. Again, substantial delay has happened and a longer delay reduces the potential of the distressed firm to survive.

It is believed that these substantial delays in both cases are due to the fact that the failure of reorganisation at any stage does not automatically trigger liquidation but releases the debtor to its *status quo*. For the first case, since there is no threat of liquidation, it is more attractive to implement the restructuring plan agreed in CDRAC (of course, subject to amendment in reorganisation by non-CDRAC creditors) under legal protection rather than risk possible legal action by non-CDRAC creditors outside the system. In the latter case, the debtor may prematurely file for reorganisation without trying other alternatives because it risks nothing from reorganisation.

The Role of the Financial Institutions

In Chapter 6, the role of financial institutions in solving insolvency problems is examined extensively. At least in the context of the Thai economy, they play a significant role in turning round a distressed firm. The court, at the time of petition, misconceives the role of the financial institutions. A company with relatively high debt belonging to a financial institution should find it easier to achieve a settlement in a private workout. It is possible that the court has insufficient information about the debtor and arbitrarily uses this variable as an indicator of a good prospect for recovery. This is the evidence that the subjective guidelines for 'reasonable ground of reorganisation' are insufficient and can lead to the undesirable size effects.

Moreover, in the final stage, the success of reorganisation is significantly determined by the relative negotiation power of the financial institution creditors (in our analysis it is compared with trade creditors in terms of the amount of debt) in both the probit and multinomial logit models. In fact, under efficient, ideal proceedings, this variable should no longer be significant; only variables indicating the company's efficiency or good performance should.

By and large, the new Bankruptcy Act has several legal loopholes that impair its efficiency, particularly, its inability to align creditors' divergent expectations and its relative 'softness' allowing related parties to exploit the system. It also discourages private workouts. These cause the proceeding to be lengthy, expensive, and wasteful. Furthermore, it does not exploit the role of the financial institutions by requiring them to assist in the screening of potentially efficient companies so that they may be reorganised through a carefully designed legal mechanism. Unfortunately the court lacks sufficient information to make a proper decision, something the financial institutions are in a relatively better position to do.

Appendix to Chapter 7
Additional Information on Data Definitions

Definition of Ratios

In this chapter, many financial ratios – mostly conventional and some unconventional – are used as explanatory variables. Here is the list for all ratios and their description. In generally, there are six main categories for financial ratios: leverage, liquidity, efficiency, profitability, market value ratios, and productivity ratios.

Leverage Ratios

Total Debt/Total Assets: This ratio shows the general level of company's indebtedness or leverage by considering the proportion of total debt to total assets. If the ratio exceeds one, it implies the company has more liability than assets.

Equity Market Value/Total Debt: This ratio measures the size of the company's 'buffer' before it becomes insolvent if the value of the equity is declined (Altman, 1968).

Liquidity Ratios

Cash/Total Sales: This ratio represents the proportion of cash balance to total sales.

Cash/Total Assets: This ratio represents the proportion of cash balance to total assets. It indicates, to a certain extent, the financial structure of the company. A high value shows a better liquidity; however, it also means that there is too much cash leftover which should be invested in other profitable activities.

Cash/Current Liabilities or Cash Ratio: This ratio shows the level of liquidity of cash balance (sometime plus marketable securities) proportional to current liabilities which is the short-term obligation. In other word, how well the company stands when the trouble comes.

Cash Balance/Interest Expense: This ratio calculated by using outstanding cash balance proportional to interest expense. It shows how well the company would meet obligation to pay its interest expense from its cash balance.

Current Assets/Total Assets: This ratio indicates the proportion of relatively shorter-term assets to the total level of assets. The higher the ratio means the relatively easiness to meet any obligation.

Current Assets/Current Liabilities or Current Ratio: This ratio reflects the relative ability to meet short-term obligation. If the ratio is higher than one, the company has no problem to meet obligation that would due in the near future.

Quick Assets/Current Liabilities of Quick Ratio: This is very similar to a cash ratio but broader as it includes the account receivable into the numerator.

Quick Assets/Total Assets: This ratio measures the relative size of liquid asset to total assets, indicating how fast the company can convert its assets into liquid assets.

Working Capital/Total Assets: The working capital is defined as the difference between current asset and current liabilities. This ratio can be considered as the proportion of asset 'freed' from short-term obligation to total assets.

Efficiency Ratios

Current Assets/Total Sales: This is the inverse of the current asset turnover ratio. It indicates how much sales are generated by current (relatively shorter-term) assets. The lower ratio implies the higher efficiency.

Working Capital/Total Sales: This is the inverse of the conventional working capital turnover ratio. This ratio shows the proportion of 'free' asset to the total sales. The lower the ratio indicates the more contribution of working capital to generate sales for the company.

Inventory/Sales: This is the inverse of the inventory turnover ratio. This indicates how rapid the company's inventory changes. The lower can imply the higher efficiency; however, it can be the case that the company may struggle to survive.

Quick Assets/Total Sales: The ratio shows the ability of quick asset (cash + marketable securities + account receivable) to generate sales. The lower ratio denotes high ability of quick asset to generate sales.

Profitability Ratios

Retained Earnings/Total Assets: The ratio indicates the cumulative profitability. It is somehow dependent on the 'age' of the company whereby the relatively younger firm has low ratio because it needs to build up the profit (Altman, 1968).

Cash Flow or Net Income/Total Assets: It is also known as the return on asset (ROA) if the denominator is the previous period figure (t–1). The ratio reflects an ability to generate income in relation to total assets.

Cash Flow or Net Income/Total Debt: This ratio is very similar to the previous one but the denominator is total debt. Hence, it indicates the proportion of generated income to total liabilities. It could also be treated as the ability to service debt.

Market Value Ratios

Equity Market Value/Total Capitalisation: Equity market value reflects shareholders' wealth (for common stock); while total capitalisation is the product of the total shares out in the market and the current stock price. This ratio indicates the relative wealth of shareholders.

Equity/Sales: The ratio indicates the proportion of shareholders' wealth to total sales. It measures the ability of shareholders' claim to generate sales. The lower ratio implies the higher ability.

Productivity Ratios

EBITDA/Total Assets: EBITDA is defined as Revenue – Expenses, excluding tax, interest, depreciation, and amortization. EBITDA itself is a measure for profitability but not cash earning or the liquidity. It can also tell the ability to service debt. This ratio tells its relative size to total assets. Altman (1968) claims it shows the true productivity of the firm or the real earning power of the company's asset.

Total Sales/Total Assets: This is a capital-turnover or asset turn over ratio indicating the ability to generate sales by the company's assets.

Total Assets/Employees: The ratio measures the capital intensity of the company. As the ratio increases, it implies each employee has to work with more assets which further indicating the employees' ability to work with asset – labour productivity. This may be interpreted as a proxy for asset specificity.

Operating Revenue/Employees: The ratio can indicate the level of labour productivity but in term of the ability to generate revenue.

Non-conventional Ratios

Current Liabilities/Equity: This ratio measures the burden of short-term debt on shareholders' wealth – how much shareholders' claims is affected if short-term debt is due. The lower ratio indicates the relatively safer shareholders' position.

ln(total assets): Natural logarithm of total assets (to linearise the distribution of total assets).

ln(interest) or ln(interest+15): Natural logarithm of interest expense (to linearise its distribution).

Net Income/Total Capitalisation: The ratio denotes the proportion of generated income to the total company value.

Secured Debt/Total Debt: This ratio represents the proportion of secured debt to total debt. It reflects the borrowing structure of the company to what extent company's debt is secured (creditors have direct claims on company's assets).

Equity/(Total Assets – Current Liabilities): The ratio indicates the proportion of shareholders' claims to remaining assets after short-term debt has been paid.

(Interest Expense – EBITDA)/Interest Expense (at the time of petition): This ratio is used by Asquith, Gertner, and Scharfstein (1994) to measure the proportion of excessive interest expense (not paid off by EBITDA) to interest expense at the time of bankruptcy petition. The higher the ratio means more excessive interest expense that should be paid off by other assets. In our empirical analysis, however, only Interest Expense – EBITDA is used since some companies did not pay their interest at the time of application. The negative value indicates the company generates sufficient income to cover the interest payment.

(Total Debt – Total Asset)/Total Asset: This ratio measures the degree of insolvency, corrected by the size of its asset. If this ratio is high, it means more severe insolvency.

Non-operating Expense/Operating Expense: This shows the relative share of expense that does not directly involve with the core business of the debtor. The higher ratio implies less efficiency.

(Operating Revenue – Operating Expense)/Number of Creditors: This ratio shows the average share of debtor's income among creditors. Higher ratio implies the average stake of newly generated income that creditors negotiate for during reorganisation.

Debt belonged to Financial Institutions – Debt belonged to Trade Creditors: This ratio measure sthe relative bargaining power in renegotiation. The positive value indicates the higher bargaining power of financial institutions. The negative value indicates the higher bargaining power of trade creditors.

Operating Expense/Total Asset: This ratio shows the proportion of operating expense (cost of production) to total assets. Higher ratio means the company has high cost of operation as well as its dependency on outsourcing (need to buy from outside to operate).

Definition of 'Influential' Person

Although the detailed discussion about 'influential' person is in Chapter 6, it needs to be justified when the empirical method is implemented. In Section 7.5, the dummy variable denotes the 'influential' person in the debtor's board. Criteria to determine if the company has an 'influential' person are as follows. First the company board of director is inspected. The information about this is obtained from the Department of Commercial Registration, Ministry of Commerce.

Then, directors' surnames are matched with

1. Surnames that deemed to be influential to the Thai economy [based on the works developed by Akira (1996) and Chulapongsathorn (2002)],
2. Surnames related with leading politicians (ministerial posts and above), military figures, and government officials (of high rank and have involved in politics),
3. Surnames related with nobilities and descendants of royalties.

When there is a match in one or more categories above, this dummy variable would take the value one; otherwise, it would be zero.

Chapter 8
Conclusion and Policy Recommendations

This chapter concludes the thesis with a revised conceptualisation of corporate insolvency or bankruptcy in the light of economics, the nature of Thai way of borrowing and lending, plus the analytical finding of its impact on renegotiation of a debt contract and how insolvency is solved. The empirical results, obtained by using econometric methods, of how well current bankruptcy legislation has performed are summarised. Policy recommendations on the direction of bankruptcy legislation in Thailand conclude this study.

8.1. Bankruptcy Revisited

The problem of bankruptcy is often perceived as a legal problem. In fact, bankruptcy is an economic problem that requires a proper legal framework to support its functionality. Basically, bankruptcy is the collective renegotiation of simple debt contracts involving many creditors and a single debtor. Renegotiation is needed because a debtor is unable to fulfil his debt commitment. It is a collective procedure that deals with many creditors. As the number of creditors increase, transaction costs increase exponentially. Transaction costs may be prohibitively high making renegotiation unfruitful. Bankruptcy is called for to alleviate these obstacles allowing a collective solution to be achieved. A single creditor facing default should never seek a solution from the bankruptcy proceeding.

Problem of Valuation

High transaction and renegotiation costs plus the uncertainty on the future prospect of a debtor firm prevent creditors with diverse views to settle on how insolvency should be resolved. It is worth noting that bankruptcy is a collective proceeding, not an individual pursuit for non-payment. Consequently, there is a transition from different individual claims on a single company to a collective claim on that company.

Bankruptcy legislation, therefore, should be the legal framework that reduces transaction, renegotiation, and information costs, realises the real value of debtor company, and draws diverse opinions of creditors together to get the economically efficient collective solution – 'what is to be done with the debtor company?' The legislation itself must not be mistaken as the solution to insolvency. It is the means to solve the problem, not the end.

In particular circumstances, the debtor company is worth more when it continues to operate. In such a case, the economically efficient solution to insolvency is reorganisation or rehabilitation where the debtor company continues its business but its management and/or financial structure should be restructured. It may also be merged into another company. Another possibility is that a third party or its creditor(s) purchases the debtor company as a single unit, so-called a 'going-concern'. Under these circumstances, the assets, or the substantive portion of assets, are not separated.

On the contrary, the debtor company is worth more when it ceases to operate. In such a situation, the economically efficient solution is liquidation where the firm is dissolved – all assets are separately sold and the revenue from that would be redistributed to creditors according to their pre-bankruptcy rights.

Problem of Redistribution

A subsequent problem in bankruptcy is how the return from the process would be distributed amongst creditors. The problem involves rights before and after insolvency occurs, treatment of non-bankruptcy rights in bankruptcy, and how the losses are distributed.

It is crucial that the order or the priority of claims and rights should be maintained regardless of procedure (bankruptcy or non-bankruptcy). However, in bankruptcy, it is justified for creditors to bear a certain degree of loss depending on their cost of taking loss – those who have a lower cost of incurring loss take more loss.

What makes the redistribution more complicated is the misperception of claimants. Instead of making a decision by comparing the return from non-bankruptcy and the return from bankruptcy, claimants compare between when the debtor is solvent and insolvent. The debtor's management would never admit that the company is on the brink of failure. This changes the perceived threat value of every involved party. For instance, the threat value to the debtor's management should be zero because its company is insolvent and thus the right to run the business is no longer valid (must be transferred to creditors), but its threat value becomes the return from continuing to manage the company in the future if the firm re-emerged from reorganisation. Similarly, some creditors, who might get nothing from liquidation, refuse to believe that their returns are zeros but full repayment as if the company were solvent.

Most claimants become more optimistic about the real value of the ailing firm when reorganisation is available. In other words, most of them think the cake is much bigger than it actually was (in liquidation) and each of them should have a bigger share. Therefore, they are less flexible, less compromising, and less co-operative. A bias on valuation is occurred.

8.2. Efficiency and Optimality of Bankruptcy Procedure

Any bankruptcy procedure or legislation is efficient when it can reallocate the debtor's assets into the highest valuation/utilisation **and** redistribute the return from that disposal to all claimants in such a way that at least no one is worse off than what they would receive from other possible redistribution schemes. This is called *ex post* efficiency.

In addition, this should be related to *ex ante* efficiency whereby the bankruptcy procedure creates optimal incentive for creditors to take into account the possibility of insolvency at the time of the lending decision. Hence, before signing the debt contract, they would consider the proposal carefully (i.e. use proper credit assessment). They, after the loan is granted, should invest the optimal effort in monitoring their debtors. Also, they should not restrict their credit supply excessively to avoid insolvency.

However, both efficiencies cannot be achieved simultaneously. There must be a trade-off between *ex ante* and *ex post* efficiency. Thus, the question is not about efficiency but optimality of bankruptcy law – how to balance *ex ante* and *ex post* efficiency to achieve a desirable outcome. Striking the correct balance is not simple. The thorough understanding of the economic and business reality of a particular country is required. The design of bankruptcy law does matter in order to achieve the desirable optimality.

8.3. Bankruptcy Misperceived

The bankruptcy problem is generally misperceived, especially when it is not approached systematically. Two major misperceptions are the issue of employment and the adverse 'domino' or contagious effect on the economy that would eventually lead to economic decline. When a company fails, its employees are unemployed. Subsequently, a general increase in unemployment would threaten the stability and the growth of the economy which in turn reduce the aggregate demand. A reduction in the aggregate demand, then, causes the fall in profitability and revenue of business firms and an increase in insolvency risk. More companies are insolvent, the cycle completes and the recursive mechanism would take the whole economy into recession. To prevent this, bankruptcy procedure with the provision of reorganisation is misperceived as a best solution. If reorganisation is successful, the company survives, employment is preserved, and the downside threat to the economy is terminated.

Although the explanation is convincing, at least in terms of macroeconomics, it is valid only in the very short term. The implementation of bankruptcy procedure to save ailing firms could backfire on the economy. Rescuing inefficient firms permits the inefficient use of assets and human capital. Instead of being employed efficiently elsewhere, these assets and human capital are under utilised. The whole economy bears the social cost of inefficient utilisation. In the longer run, inefficient firms will lose their competitiveness and eventually they will be driven out of business. Sooner or later they will be defunct. It is better for the economy to detect inefficiency early and dispose assets to a higher valuation.

Using bankruptcy law to tackle the threat of unemployment and economy-wide recession creates an adverse side effect. It is evident that the design of bankruptcy legislation involves a trade-off between short-run crisis prevention and long run economic efficiency. If long run economic efficiency is substituted for more short-run recession deterrence, overall inefficiency and insolvency risk increase. Insolvency will become more severe in the following period. Bankruptcy legislation is required to minimise the error of having too many inefficient firms rescued or too many efficient companies deceased.

8.4. Thai Business Practices, Lending-Borrowing Relationship, and Insolvency

The core of Thai business practices is the network of personal-economic relationships that leads to general 'less-than-arm's-length' business transactions. Personal preferences and benefits play a crucial role in Thai businesses. Sometimes personal benefits may outweigh economic benefits in decision-making. Henceforth, the lending decision could be considerably influenced by personal preferences and benefits in which it might reach a different outcome from that which would result from conventional credit assessment.

Such cronyism is a result of a unique development of Thai modern businesses under the distinctive and threatening institutional environment in the past. It supplants, and sometime complements, the market mechanism. It has overcome high political uncertainty. It even increases the efficiency of business transaction.

Personal connections and reciprocity of trust, from the perspective of lenders, reduce informational costs about potential borrowers. Moreover, it could act as a self-monitoring device for a debtor. Unfortunately, as businesses grow, such personal relations cannot afford to control the behaviour of all involved parties. It is prone to opportunistic behaviour of the debtor and does not produce enough incentives for creditors to monitor their debtors. In addition, the rapid growth of the Thai economy may shift the people's beliefs to be overly optimistic. This increases the tendency to behave opportunistically. Thus, the nature of Thai business practices is threatened resulting in a higher chance of insolvency.

Therefore, lenders in Thailand are those who know their own borrowers, directly and indirectly. With the limited number of financial institutions under the strict government control, creditors are very small in number in relation to trade creditors that deal more with their debtors on a more frequent basis. In addition, the majority of loans are unsecured due to personal contact and trust. Although secured debts do exist, most of them are secured with under-valued collateral because collaterals are, in Thai context, required to reduce the initial information cost of knowing each other. Once the relationship is established, collateral is no longer relevant or is required for only procedural purposes not reflecting the underlying debt. Notably, the risk of default or insolvency has never been allocated to the most efficient party or never been efficiently shared between parties under this kind of less-than-arm's-length business relations.

In the advent of insolvency, financial institution creditors have relatively lower transaction and negotiation costs than other creditors, partly due to their relative small number. On the other hand, there are a much larger number of trade creditors and they are more likely to be affected by insolvency, particularly if they are in the same industry as the debtor. Improper risk sharing causes the significant variation in behaviour of involved parties under bankruptcy. Anyone who already took lower risk than the optimum would not like to take any additional risk under bankruptcy. Similarly, anyone who bears too high risk wants to transfer it somewhere else. This leads to costly negotiation in bankruptcy.

8.5. Thai Bankruptcy Legislation and its Empirical Performance

The Bankruptcy Act B.E. 2483 was a liquidation based bankruptcy procedure. It can be categorised as a 'tough' procedure where the insolvent company will definitely be liquidated.

Although the continuation of a debtor's business is plausible through composition, it does not alter the underlying characteristics of the procedure. Interestingly, even though Thailand had employed a very restricted bankruptcy regime, it did not prevent the outspread of insolvency after the crisis in 1997.

The failure of the tough bankruptcy procedure to avoid the outbreak of multiple defaults and insolvency has revealed underlying deficiency of the bankruptcy system as a whole, not only the bankruptcy legislation. This fact also rationalises the relatively infrequent use of the formal bankruptcy procedure. Implicitly, most multiple defaults were solved by non-bankruptcy workouts and intensive non-bankruptcy government interventions (Akira, 1996; Chulapongsathorn, 2002). Not many were delegated to the formal bankruptcy system. Evidently, the legislation has not been subjected to any major amendment in the last 50 years despite the fast development of the Thai economy and many economic crises happened within the same period. After the economic crisis in 1997, there was a pressure to amend the bankruptcy legislation implying that non-bankruptcy solutions can no longer cope with mounting insolvency. Behaviours of related parties are so divergent that usual private workouts cannot produce a solution.

The inclusion of the reorganisation clause, which is collectively known as Section 90 (Section 90/1-90/90), has been effective since 1998. It is worth examining how well the new legislation has performed. Empirical investigation into 166 firms that applied for reorganisation was conducted. Factors determining the success of reorganisation were analysed. The findings are very surprising (see Chapter 7 for more detail). Many factors were evidently contradictory to economic efficiency including number of employees, company size, and other specific factors that should help distressed firms to achieve the solution privately and voluntarily rather than seeking bankruptcy. Preventing unemployment and company collapses, evidently, are the primary target of reorganisation under this new legislation, not the improvement of economic efficiency. The investigation also reveals some institutional impediments within the bankruptcy system. It does allow debtors and some creditors to strategically exploit the system for their own benefits.

In general, the bankruptcy system under the new law is far from being economically efficient. The system operates in such a way that it reflects the underlying trade-off between tackling the short-run economic crisis and improving the long-run corporate efficiency, with some institutional obstacles. It is worth noting that the clause for reorganisation has been annexed (borrowing from US and UK insolvency laws) into the existing legislation without thoroughly considering the fundamentals of the Thai economic structure.

8.6. Non-Bankruptcy Resolution, its Role, and its Effect on Bankruptcy System

The empirical evidence shows that an extremely high proportion of distressed companies have successfully restructured their debts without resorting to bankruptcy. Though private workouts are not accounted for, the high success rate and the number of participants in the restructuring regime of the Corporate Debt Restructuring Advisory Committee (CDRAC), the Bank of Thailand (BOT) attests that.[1]

Notably, in contradiction to the concept of efficiency, distressed companies that gained the 'restructuring' agreement under non-bankruptcy resolution – under CDRAC – are seeking a further resolution in bankruptcy. Providing the nature of Thai business and relative cost saving resolution of non-bankruptcy method, all involved parties should prefer to follow the non-bankruptcy restructuring than going for reorganisation. This evidently indicates the ailing debtors are exhibiting opportunistic behaviour by trying to 'buy the time,' and cause severe delay to their creditors in order to gain more from further renegotiation. Furthermore, non-bankruptcy resolution offered by the Bank of Thailand does not help to reduce the problem of insolvency, despite its high success rate in restructuring a majority of 'bad' debt.

Companies that apply for bankruptcy even though they reached the settlement in CDRAC are using the bankruptcy system for their own benefit at the expense of other claimants in bankruptcy. This implies the bankruptcy legislation has failed to screen this kind of opportunistic debtor/creditors off the system. This legislative and institutional weakness should be corrected. It is important for the bankruptcy system to take into account the role of non-bankruptcy resolutions and the possibility that they must involve with bankruptcy one way or another.

Although there is a relative small proportion of firms seeking formal bankruptcy, it does not mean that the bankruptcy law should be removed. Its indirect role is to impose a substantial

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[1] The total of the registered companies with the Department of Commercial Registration (DCR), Ministry of Commerce at 1999 was approximately 592,000. The total companies achieved the agreement under the restructuring scheme of CDRAC in 1999 was 476,137. If we presume that every company is in distress, more than 80 percent have solved their problems through non-bankruptcy alternative.

threat and act as a default rule for renegotiation of creditors and debtor which they can revert to whenever a private renegotiation fails. Rules in bankruptcy law will provide the baseline and shape the structure of their bargaining helping them to reach a solution. Without a bankruptcy law, a possible set of solution can be too large and the outcome may not be unattainable by renegotiation.

8.7. Suggested Mechanism

The debt offsetting mechanism devised in this research is very similar to what Bebchuck (1988) and Aghion, Hart, and Moore (1992) have suggested but it is based on the debt instrument rather than equity instrument. Based on the fact that many companies in Thailand are intertwined and there are a very limited number of commercial banks and financial institutions that make the solution more possible from the creditor's side.

Each debtor might have a lot of creditors: different classes (secured and unsecured) and different types (personal, trade, financial institutions, and statutory (e.g. tort) creditors). But the limited number of commercial banks and financial institutions in Thailand gives them a pivotal role for the resolution. No more than 20 banks and no more than 100 non-bank financial institutions are involved in any case. Furthermore, some of the banks own other financial institutions. Meanwhile, the number of other creditors could rise well beyond 1,000 in some cases. These creditors are also customers of those limited number of banks and financial institutions – as creditors (depositor) and/or as debtors.

Creditors can trade their debts owed by the same debtor under this mechanism. The trading is voluntary according to each creditor's perspective towards the debtor. Numbers of creditors will be reduced and creditor's voting will be more decisive. In the event of disagreement at any stage of the bankruptcy procedure, the mechanism switches from voluntary to compulsory: debt contracts between creditors are forced to be offset. A creditor who is a 'net' creditor from this mechanism will have the right to vote on the future of the debtor's estate. A creditor who is a 'net' debtor under this mechanism will have their debts adjusted: receive some debts forgiveness by other creditors, and lose her rights to vote in bankruptcy.

The mechanism induces creditors who have more information about the debtor company or have more confidence with its future to be more involved in reorganisation by exchanging their debts with other creditors in order to gain more votes. Those who have no information or foresee an appalling prospect for the debtor would agree to accept the debt exchange (rather than getting nothing). In the case that creditors have similar perceptions about the debtor's future which deters the trade, the trading of debt could be made at a premium or discount. This is the channel to transfer the surplus that could arise from reorganisation to participating parties. The law should ratify all agreeable exchanges.

This is not proposed to be the core mechanism but it should be employed when there is an impasse and/or run parallel with the normal voting procedure. It imposes a high threat value for all participating parties making them more co-operative (presumably, they are fundamentally co-operative). It would also reduce the delay drastically because there is no subjective or normative judgement and voting may not be necessary. Moreover, it would reduce the strategic use of bankruptcy by creditors, debtor, or both. The proposed mechanism is Pareto improving. At the bottom line, debts with same amount of claim are identical; regardless they are claims on the debtor or other creditors. Therefore, when they are cancelling out each other, no one is worse off. Somebody, however, could be better off by a trade that is made at premium. The mechanism should be suitable for the Thai economy because the number of core creditor (banks) is very small and transaction costs are then substantially reduced. Also, it imposes no constraint on creditors' wealth. The decision about the debtor will be decisive and efficient.

8.8. Amendment and Policy Recommendation

Apart from the proposed mechanism, there are several systematic and institutional weaknesses in the bankruptcy legislation that should be considered. First of all is the separation between liquidation and reorganisation, albeit they are under the same legislation. The discharge from reorganisation shall automatically start the liquidation process. However, according to the Law, the discharge from reorganisation would send the debtor back to its *status quo* including its incumbent management unless the court sees it is appropriate to liquidate the debtor. The separation significantly reduces the threat of being liquidated; hence, it encourages more than the optimal number of debtors to use reorganisation. Subsequently, this would send the distorted signal to all management that inefficiency and wrongdoings are less punished. Noticeably, just the separation of two procedures can impair the efficiency of bankruptcy system *ex post* and *ex ante*. Additionally, granting the discretionary power to the court to decide whether to liquidate the debtor induces a bias and causes the inefficient creditors' decision.

Moreover, there is evidence that reorganisation is illicitly used by some creditors as a tool to enhance their negotiation power. This is a second important drawback where the legislation has produced an adverse, unwanted, incentive to use bankruptcy opportunistically.

Since trade creditors are usually less able to diversify their risks when the debtor is insolvent, non-bankruptcy intervention may be useful instead of softening the law. There is a possibility for the government to relax the control over trade creditors as well as give them some financial assistance to alleviate their constraints.

Political and personal influences have considerable effects on the performance of the bankruptcy procedure, theoretically and empirically. Where influential persons could play a certain role in bankruptcy – e.g. delay or expedite the progress or affect the outcome of the procedure – the integrity, transparency, and efficiency of the procedure are undermined. Although we cannot deny their influence in the context of the Thai society, the appropriate design of bankruptcy legislation with a comprehensive understanding of Thai business practices and the concept of bankruptcy can minimise such problems plaguing the economy. Furthermore, a large proportion of companies received various forms of government support and subsidies including investment privileges.[2] These would further assist companies to gain competitive advantage over other companies. But, at the same time, they become less efficient.

Ultimately, bankruptcy legislation should be viewed in the context of a whole bankruptcy problem with institutional environment it works in. *Ex post* and *ex ante* economic efficiency of the bankruptcy procedure must be thoroughly investigated to guide for any future amendment. It is indisputable that the error in bankruptcy cannot be avoided (see Chapter 4) and it is costly to the economy. But, in the long run, preserving economically inefficient companies is more costly than prematurely liquidating efficient companies. The correct trade-off of bankruptcy roles is the crux of the optimal procedure and economic efficiency. The bankruptcy law must be used to solve the problem of insolvency, deter the future possibility of insolvency, and improve economic efficiency of firms. Consequently, the risk of corporate collapse, unemployment, and economic recession would be eventually reduced without using the law as it is now.

A wider implication of the thesis is that the understanding of institutional environment and culture is critical before institutional change is implemented. Imposing the change without a proper consideration may lead to undesirable consequences.

[2] This cannot be incorporated into the empirical analysis because it does correctly predict the dependent variable

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